सत्यमेव जयते

आत्मनिर्भर भारत

CPWD

Central Public Works Department
Analysis of Rates for Delhi
Volume - II
2023



Pradhanmantri Sangrahalaya,
New Delhi

सत्यमेव जयते

GOVERNMENT OF INDIA

CENTRAL PUBLIC WORKS DEPARTMENT

ANALYSIS OF RATES FOR DELHI (VOL.2) 2023

CPWD

Published under the Authority of Director General, CPWD, New Delhi

© All rights reserved. No part of this publication, either in English or in Hindi, may be reproduced in any form or by any means, electronic or mechanical including photocopy, recording or any information storage and retrieval system, without permission, in writing, from the Director General, CPWD, New Delhi.

DISCLAIMER

The Delhi Analysis of Rates is indicative, as coefficients for labour are likely to vary due to technological innovations, skill of workman and other local factors affecting the efficiency and output of labour. Further its use by Govt. Departments, PSUs, private bodies & individuals shall be at their own discretion. CPWD shall not be responsible for any ambiguity, discrepancy, dispute or financial loss, arising directly or indirectly by using or following items of Delhi Analysis of Rates by such Govt./Private bodies or individuals.

For feedback and suggestions, please contact SE(TAS), CPWD, Room No. 418, ''A'' Wing, Nirman Bhawan, New Delhi- 110011. Tel. No. 011-23062339, Email: delsetascsq.cpwd@nic.in

A GOVERNMENT OF INDIA PUBLICATION

Published by

DIRECTOR GENERAL
CPWD, Nirman Bhawan, New Delhi - 110011

Printed & Marketed by

PERFACT IMPRESSION PVT. LTD.
49/72, Sahibabad Industrial Area Site-IV, Ghaziabad - 201010,
(U.P.), NCR of Delhi
Phone : 9999424224, 9873252544, 9811906767, 9312603991
E-mail : mail@perfactimpression.com, perfact.impression@gmail.com

Buy online at GEM (Scan QR)

www.bit.ly/PerfactCPWD

Also available at
All Leading Booksellers & Authorised Govt. Dealers In India

Price : Rs. 3200/- (for both volumes) excluding postage and forwarding charges etc.



Rajesh Kumar Kaushal
Director General

सत्यमेव जयते

Government of India

केन्द्रीय लोक निर्माण विभाग
निर्माण भवन, नई दिल्ली 110011
Central Public Works Department
Nirman Bhawan, New Delhi- 110011
Tel : 23062556 / 1317, Fax : 23061884
E-Mail : cpwd_dgw@nic.in

FOREWORD

Delhi Analysis of Rates (DAR) brought out by CPWD is a comprehensive and useful document forming the basis for the rates of various items in DSR. It is based on regular assessment (based on observation during execution) of inputs of materials, labour, and machinery by various stakeholders as well as inputs provided by manufacturers of building materials and technologies for various items involved in civil works.

The DAR serves as backbone in preparation of DSR. Firstly it was published in 1950. Thereafter as per requirement, it was regularly revised to cope up with the necessity of items in the field with changing requirement of new building materials and technology.

The last edition of Delhi Analysis of Rates was published in the year 2021 and its revision has become necessary since DSR is being revised owing to:

(a) Provision contained in CPWD Manual to revise the DSR after every two years.
(b) Incorporating Corrections in analysis of rates of items which issued through correction slip No.1 to 22.
(c) Revision of GST rates on works from 12% to 18% w.e.f 18.07.2022.

I wish to place on record the technical input and effective coordination provided by Shri Dharmesh Chandra Goel, ADG (Tech.), Shri Prem Mohan CE/CSQ (Civil), Shri Vinayak Rai and the sincere efforts put in by Shri D.K. Ujjainia, SE (TAS), Shri M. Seetarama Rao, Shri S. N. Jaiswal EE(TAS), Shri Durga Ram Chowdhary AE(TAS), Shri Akhileshwar Shah, Chief Estimator and the entire team of officers in CSQ unit in preparing and finalizing the DAR 2023, in a short and time bound frame.

I am sure that **CPWD Delhi Analysis of Rates 2023** will be useful to all Engineers of the CPWD and PWD, Delhi and other engineering organizations adopting DAR 2023 for their works.

Place: New Delhi
Date: July 12, 2023

(Rajesh Kumar Kaushal)
Director General



Dharmesh Chandra Goel
Addl. Director General (Tech)

सत्यमेव जयते

Government of India

केन्द्रीय लोक निर्माण विभाग
निर्माण भवन, नई दिल्ली 110011
Central Public Works Department
Nirman Bhawan, New Delhi- 110011
Tel : 23063389, Fax : 23061833
E-Mail : adgtd@nic.in

PREFACE

1. CPWD Delhi Analysis of Rates 2023 is the revised edition of CPWD DAR 2021.

2. Delhi Analysis of Rates 2023 included all the correction slips issued so far.

3. Delhi Analysis of Rates 2023 is published in two volumes (vol. I & vol. II). The volume I & II is having 12 sub heads and 14 subheads respectively as follows.

Volume Number	Sub-head No.	Content/Sub-head
One	0	Basic Rates
	1	Carriage of Materials
	2	Earth Work
	3	Mortars
	4	Concrete Work
	5	Reinforced Cement Concrete
	6	Masonry Work
	7	Stone Work
	8	Cladding Work
	9	Wood and PVC Work
	10	Steel Work
	11	Flooring
	12	Roofing
Two	13	Finishing
	14	Repairs to Buildings
	15	Dismantling and Demolishing
	16	Road Work
	17	Sanitary installations
	18	Water Supply
	19	Drainage

Volume Number	Sub-head No.	Content/Sub-head
	20	Pile work
	21	Aluminium Work
	22	Water Proofing
	23	Rain Water Harvesting & Tube wells
	24	Conservation of Heritage Buildings.
	25	Structural Glazing Aluminium Composite Panel
	26	New Technologies and Materials

4. Delhi Analysis of Rates 2023 is based on market rates of materials prevailing during the month of April 2023 at Delhi. The basic rates of materials are without GST and are incorporated in the analysis, pertain to materials conforming to BIS Standards/CPWD Specifications/Materials of good quality generally available in the market, as provided by four committees headed by CE NDZ 1, II III of CPWD and CE flyover project zone, PWD. The prevalent GST @ 18% on work contracts has been incorporated in analysis of all items. Labour rates are taken from the minimum rate of wages including the basic rates and variable dearness allowance issued by the Chief Labour Commissioner, New Delhi Ministry of Labour and Employment, Govt. of India vide letter No. 1/S(i)/2023-LS-II dated 03.04.2023 and Commissioner (Labour), Govt. of NCT of Delhi vide letter No. (142)/02/MW/VIII/Part file/429-443 dated 20.04.2023 (whichever is higher) w.e.f. 01.04.2023.

5. The nomenclature of main items has been printed along with the analysis of first Sub Item only to conserve the space and number of pages.

6. Sundries have been considered as 2.27 times based on Cost Index of Delhi as on 01.04.2023 which is 107 over Delhi Plinth Area Rates 2021 with base 100 as on 01.04.2021.

7. I wish to place on record the technical input and effective coordination on the part of Shri Prem Mohan, CE, CSQ (Civil) & Shri Vinayak Rai and the sincere efforts put in by Shri Dinesh Kumar Ujjainia, SE (TAS) & Shri M. Seetarama Rao, Shri S.N. Jaiswal EE(TAS), Shri Hemanta Panrui, AE (TAS), Shri Gian Chand, AE (TAS), Shri Raghvendra, AE (T AS) & Shri Akhileshwar Sah, Chief Estimator and special thanks to Shri Durga Ram Chowdhary, AE (TAS) for his constant hard work to carryout the correction in analysis of items through out of the year and in preparation and finalizing the DAR 2023 in a due time.

8. I convey my gratitude to committees under CE, NDZ-1, II, III and CE Flyover Zone, PWD, Delhi who provided market rates of items to CSQ office and thus enabled them to come out with this edition of DAR.

9. Although due care has been taken in bringing out DAR-2023, still there is possibility that some errors are left inadvertently. Errors or omissions may be brought to the notice of Superintending Engineer (TAS), CPWD, Room No. 418, A-Wing, Nirman Bhawan, New Delhi -110011 (delsetascsg.cpwd@njc.in / cecsq.cpwd@nic.in).

Suggestions from everyone who are using this document are welcome as there may have further scope for improvement.

(Dharmesh Chandra Goel)
ADG(Tech) CPWD

CONTENTS

Vol. 1

SH. No.	NAME OF SUB-HEAD	PAGE No.
A.	**BASIC RATES**	
0.1	HIRE CHARGES OF PLANTS & MACHINERY	3-6
0.2	LABOUR	7-8
0.3	MATERIALS	9-78
B.	**SUB -HEADS**	
1.	Carriage of Materials	79-89
2.	Earth Work	91-142
3.	Mortars	143-152
4.	Concrete Work	153-212
5.	Reinforced Cement Concrete	213-319
6.	Masonry Work	321-360
7.	Stone Work	361-402
8.	Cladding Work	403-456
9.	Wood and PVC Work	457-736
10.	Steel Work	737-779
11.	Flooring	781-880
12.	Roofing	881-982

CONTENTS

Vol. 2

SH. No.	NAME OF SUB-HEAD	PAGE No.
13.	Finishing	983-1067
14.	Repairs to Building	1069-1129
15.	Dismantling and Demolishing	1131-1176
16.	Road Work	1177-1324
17.	Sanitary Installations	1325-1441
18.	Water Supply	1443-1746
19.	Drainage	1747-1844
20.	Pile work	1845-1873
21.	Aluminium Work	1875-1903
22.	Water Proofing	1905-1926
23.	Rain Water Harvesting & Tubewells	1927-1948
24.	Conservation of Heritage Buildings	1949-1957
25.	Structural Glazing Aluminium Composite Panel	1959-1968
26.	New Technologies and Materials	1969-2121

Note : For remaining Sub Heads refer Vol. 1

SUB HEAD : 13.0
FINISHING

13.1 12 mm cement plaster of mix :

13.1.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3708.80	534.07	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2439.60	W
	Add 1 % Water charges on “W”				24.40	
	TOTAL				2464.00	X
	Add GST on “X” (multiplying factor 0.2127)				524.09	
	TOTAL				2988.09	Y
	Add 15% CPOH on “Y”				448.21	
	TOTAL				3436.30	Z
	Add Cess @ 1% on “Z”				34.36	
	Cost of 10.00 sqm				3470.66	
	Cost of 1.00 sqm				347.07	
	Say				347.05	

13.1.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.144	3038.50	437.54	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2343.07	W
	Add 1 % Water charges on “W”				23.43	
	TOTAL				2366.50	X
	Add GST on “X” (multiplying factor 0.2127)				503.35	
	TOTAL				2869.85	Y
	Add 15% CPOH on “Y”				430.48	
	TOTAL				3300.33	Z
	Add Cess @ 1% on “Z”				33.00	
	Cost of 10.00 sqm				3333.33	
	Cost of 1.00 sqm				333.33	
	Say				333.35	

13.2 15 mm cement plaster on the rough side of single or half brick wall of mix :

13.2.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3708.80	637.91	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2807.65	W
	Add 1 % Water charges on “W”				28.08	
	TOTAL				2835.73	X
	Add GST on “X” (multiplying factor 0.2127)				603.16	
	TOTAL				3438.89	Y
	Add 15% CPOH on “Y”				515.83	
	TOTAL				3954.72	Z
	Add Cess @ 1% on “Z”				39.55	
	Cost of 10.00 sqm				3994.27	
	Cost of 1.00 sqm				399.43	
	Say				399.45	

13.2.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.172	3038.50	522.62	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2692.36	W
	Add 1 % Water charges on “W”				26.92	
	TOTAL				2719.28	X
	Add GST on “X” (multiplying factor 0.2127)				578.39	
	TOTAL				3297.67	Y
	Add 15% CPOH on “Y”				494.65	
	TOTAL				3792.32	Z
	Add Cess @ 1% on “Z”				37.92	
	Cost of 10.00 sqm				3830.24	
	Cost of 1.00 sqm				383.02	
	Say				383.00	

13.3 20 mm cement plaster of mix :

13.3.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.224	3708.80	830.77	
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.10	816.00	897.60	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3313.29	W
	Add 1 % Water charges on “W”				33.13	
	TOTAL				3346.42	X
	Add GST on “X” (multiplying factor 0.2127)				711.78	
	TOTAL				4058.20	Y
	Add 15% CPOH on “Y”				608.73	
	TOTAL				4666.93	Z
	Add Cess @ 1% on “Z”				46.67	
	Cost of 10.00 sqm				4713.60	
	Cost of 1.00 sqm				471.36	
	Say				471.35	

13.3.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.224	3038.50	680.62	
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.10	816.00	897.60	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3163.14	W
	Add 1 % Water charges on “W”				31.63	
	TOTAL				3194.77	X
	Add GST on “X” (multiplying factor 0.2127)				679.53	
	TOTAL				3874.30	Y
	Add 15% CPOH on “Y”				581.15	
	TOTAL				4455.45	Z
	Add Cess @ 1% on “Z”				44.55	
	Cost of 10.00 sqm				4500.00	
	Cost of 1.00 sqm				450.00	
	Say				450.00	

13.4 12 mm cement plaster of mix :

13.4.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4211.70	606.48	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2512.01	W
	Add 1 % Water charges on “W”				25.12	
	TOTAL				2537.13	X
	Add GST on “X” (multiplying factor 0.2127)				539.65	
	TOTAL				3076.78	Y
	Add 15% CPOH on “Y”				461.52	
	TOTAL				3538.30	Z
	Add Cess @ 1% on “Z”				35.38	
	Cost of 10.00 sqm				3573.68	
	Cost of 1.00 sqm				357.37	
	Say				357.35	

13.4.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)					
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.144	3541.40	509.96	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2415.49	W
	Add 1 % Water charges on “W”				24.15	
	TOTAL				2439.64	X
	Add GST on “X” (multiplying factor 0.2127)				518.91	
	TOTAL				2958.55	Y
	Add 15% CPOH on “Y”				443.78	
	TOTAL				3402.33	Z
	Add Cess @ 1% on “Z”				34.02	
	Cost of 10.00 sqm				3436.35	
	Cost of 1.00 sqm				343.64	
	Say				343.65	

13.5 15 mm cement plaster on rough side of single or half brick wall of mix:

13.5.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.172	4211.70	724.41	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2894.15	W
	Add 1 % Water charges on “W”				28.94	
	TOTAL				2923.09	X
	Add GST on “X” (multiplying factor 0.2127)				621.74	
	TOTAL				3544.83	Y
	Add 15% CPOH on “Y”				531.72	
	TOTAL				4076.55	Z
	Add Cess @ 1% on “Z”				40.77	
	Cost of 10.00 sqm				4117.32	
	Cost of 1.00 sqm				411.73	
	Say				411.75	

13.5.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)					
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.172	3541.40	609.12	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2778.86	W
	Add 1 % Water charges on “W”				27.79	
	TOTAL				2806.65	X
	Add GST on “X” (multiplying factor 0.2127)				596.97	
	TOTAL				3403.62	Y
	Add 15% CPOH on “Y”				510.54	
	TOTAL				3914.16	Z
	Add Cess @ 1% on “Z”				39.14	
	Cost of 10.00 sqm				3953.30	
	Cost of 1.00 sqm				395.33	
	Say				395.35	

13.6 20 mm cement plaster of mix :

13.6.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.224	4211.70	943.42	
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.10	816.00	897.60	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3425.94	W
	Add 1 % Water charges on “W”				34.26	
	TOTAL				3460.20	X
	Add GST on “X” (multiplying factor 0.2127)				735.98	
	TOTAL				4196.18	Y
	Add 15% CPOH on “Y”				629.43	
	TOTAL				4825.61	Z
	Add Cess @ 1% on “Z”				48.26	
	Cost of 10.00 sqm				4873.87	
	Cost of 1.00 sqm				487.39	
	Say				487.40	

13.6.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)					
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.224	3541.40	793.27	
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.10	816.00	897.60	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3275.79	W
	Add 1 % Water charges on “W”				32.76	
	TOTAL				3308.55	X
	Add GST on “X” (multiplying factor 0.2127)				703.73	
	TOTAL				4012.28	Y
	Add 15% CPOH on “Y”				601.84	
	TOTAL				4614.12	Z
	Add Cess @ 1% on “Z”				46.14	
	Cost of 10.00 sqm				4660.26	
	Cost of 1.00 sqm				466.03	
	Say				466.05	

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix :

13.7.1 1:3 (1 cement: 3 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.144	4379.05	630.58	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3087.64	W
	Add 1 % Water charges on “W”				30.88	
	TOTAL				3118.52	X
	Add GST on “X” (multiplying factor 0.2127)				663.31	
	TOTAL				3781.83	Y
	Add 15% CPOH on “Y”				567.27	
	TOTAL				4349.10	Z
	Add Cess @ 1% on “Z”				43.49	
	Cost of 10.00 sqm				4392.59	
	Cost of 1.00 sqm				439.26	
	Say				439.25	

13.7.2 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3708.80	534.07	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				2991.13	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				29.91	
	TOTAL				3021.04	X
	Add GST on “X” (multiplying factor 0.2127)				642.58	
	TOTAL				3663.62	Y
	Add 15% CPOH on “Y”				549.54	
	TOTAL				4213.16	Z
	Add Cess @ 1% on “Z”				42.13	
	Cost of 10.00 sqm				4255.29	
	Cost of 1.00 sqm				425.53	
	Say				425.55	

13.8 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :

13.8.1 1:3 (1 cement: 3 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.172	4379.05	753.20	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3474.47	W
	Add 1 % Water charges on “W”				34.74	
	TOTAL				3509.21	X
	Add GST on “X” (multiplying factor 0.2127)				746.41	
	TOTAL				4255.62	Y
	Add 15% CPOH on “Y”				638.34	
	TOTAL				4893.96	Z
	Add Cess @ 1% on “Z”				48.94	
	Cost of 10.00 sqm				4942.90	
	Cost of 1.00 sqm				494.29	
	Say				494.30	

13.8.2 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3708.80	637.91	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3359.18	W
	Add 1 % Water charges on “W”				33.59	
	TOTAL				3392.77	X
	Add GST on “X” (multiplying factor 0.2127)				721.64	
	TOTAL				4114.41	Y
	Add 15% CPOH on “Y”				617.16	
	TOTAL				4731.57	Z
	Add Cess @ 1% on “Z”				47.32	
	Cost of 10.00 sqm				4778.89	
	Cost of 1.00 sqm				477.89	
	Say				477.90	

13.9 Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.

13.9.1 12 mm cement plaster

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:3 (1 cement : 3 coarse sand)					
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.144	4881.95	703.00	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3160.06	W
	Add 1 % Water charges on “W”				31.60	
	TOTAL				3191.66	X
	Add GST on “X” (multiplying factor 0.2127)				678.87	
	TOTAL				3870.53	Y
	Add 15% CPOH on “Y”				580.58	
	TOTAL				4451.11	Z
	Add Cess @ 1% on “Z”				44.51	
	Cost of 10.00 sqm				4495.62	
	Cost of 1.00 sqm				449.56	
	Say				449.55	

13.9.2 20 mm cement plaster

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:3 (1 cement : 3 coarse sand)					
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.224	4881.95	1093.56	
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.10	816.00	897.60	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				4127.61	W
	Add 1 % Water charges on “W”				41.28	
	TOTAL				4168.89	X
	Add GST on “X” (multiplying factor 0.2127)				886.72	
	TOTAL				5055.61	Y
	Add 15% CPOH on “Y”				758.34	
	TOTAL				5813.95	Z
	Add Cess @ 1% on “Z”				58.14	
	Cost of 10.00 sqm				5872.09	
	Cost of 1.00 sqm				587.21	
	Say				587.20	

13.10 15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:3 (1 cement : 3 coarse sand)					
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.172	4881.95	839.70	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3560.97	W
	Add 1 % Water charges on “W”				35.61	
	TOTAL				3596.58	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				764.99	
	TOTAL				4361.57	Y
	Add 15% CPOH on “Y”				654.24	
	TOTAL				5015.81	Z
	Add Cess @ 1% on “Z”				50.16	
	Cost of 10.00 sqm				5065.97	
	Cost of 1.00 sqm				506.60	
	Say				506.60	

13.11 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Under layer Cement mortar 1 : 5 (1 cement : 5 coarse sand)					
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.144	3850.75	554.51	
	Top layer Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.072	3038.50	218.77	
	LABOUR					
0155	Mason (average)	day	1.21	857.00	1036.97	
0115	Coolie	day	1.29	736.00	949.44	
0101	Bhisti	day	1.05	816.00	856.80	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3645.11	W
	Add 1 % Water charges on “W”				36.45	
	TOTAL				3681.56	X
	Add GST on “X” (multiplying factor 0.2127)				783.07	
	TOTAL				4464.63	Y
	Add 15% CPOH on “Y”				669.69	
	TOTAL				5134.32	Z
	Add Cess @ 1% on “Z”				51.34	
	Cost of 10.00 sqm				5185.66	
	Cost of 1.00 sqm				518.57	
	Say				518.55	

13.12 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Under layer Cement mortar 1 : 5 (1 cement : 5 coarse sand)					
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.144	3850.75	554.51	
	Top layer Cement mortar 1:3 (1 cement : 3 coarse sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.072	4881.95	351.50	
	LABOUR					
0155	Mason (average)	day	1.21	857.00	1036.97	
0115	Coolie	day	1.29	736.00	949.44	
0101	Bhisti	day	1.05	816.00	856.80	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3777.84	W
	Add 1 % Water charges on “W”				37.78	
	TOTAL				3815.62	X
	Add GST on “X” (multiplying factor 0.2127)				811.58	
	TOTAL				4627.20	Y
	Add 15% CPOH on “Y”				694.08	
	TOTAL				5321.28	Z
	Add Cess @ 1% on “Z”				53.21	
	Cost of 10.00 sqm				5374.49	
	Cost of 1.00 sqm				537.45	
	Say				537.45	

13.13 12 mm cement plaster 1:2 (1 cement : 2 stone dust).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:2 (1 Cement : 2 stone dust)					
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.144	5252.00	756.29	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				2661.82	W
	Add 1 % Water charges on “W”				26.62	
	TOTAL				2688.44	X
	Add GST on “X” (multiplying factor 0.2127)				571.83	
	TOTAL				3260.27	Y
	Add 15% CPOH on “Y”				489.04	
	TOTAL				3749.31	Z
	Add Cess @ 1% on “Z”				37.49	
	Cost of 10.00 sqm				3786.80	
	Cost of 1.00 sqm				378.68	
	Say				378.70	

13.14 15 mm cement plaster 1:2 (1 cement : 2 stone dust) on the rough side of single or half brick wall.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:2 (1 Cement : 2 stone dust)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.172	5252.00	903.34	
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0115	Coolie	day	0.88	736.00	647.68	
0101	Bhisti	day	0.99	816.00	807.84	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3073.08	W
	Add 1 % Water charges on “W”				30.73	
	TOTAL				3103.81	X
	Add GST on “X” (multiplying factor 0.2127)				660.18	
	TOTAL				3763.99	Y
	Add 15% CPOH on “Y”				564.60	
	TOTAL				4328.59	Z
	Add Cess @ 1% on “Z”				43.29	
	Cost of 10.00 sqm				4371.88	
	Cost of 1.00 sqm				437.19	
	Say				437.20	

13.15 20 mm cement plaster 1:2 (1 cement : 2 stone dust).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:2 (1 Cement : 2 stone dust)					
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.224	5252.00	1176.45	
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.10	816.00	897.60	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3658.97	W
	Add 1 % Water charges on “W”				36.59	
	TOTAL				3695.56	X
	Add GST on “X” (multiplying factor 0.2127)				786.05	
	TOTAL				4481.61	Y
	Add 15% CPOH on “Y”				672.24	
	TOTAL				5153.85	Z
	Add Cess @ 1% on “Z”				51.54	
	Cost of 10.00 sqm				5205.39	
	Cost of 1.00 sqm				520.54	
	Say				520.55	

13.16 6 mm cement plaster of mix :

13.16.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4379.05	315.29	
	LABOUR					
0155	Mason (average)	day	0.51	857.00	437.07	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete.	L.S.	13.39	2.27	30.40	
9999	Scaffolding and sundries	L.S.	11.70	2.27	26.56	
	TOTAL				2112.04	W
	Add 1 % Water charges on “W”				21.12	
	TOTAL				2133.16	X
	Add GST on “X” (multiplying factor 0.2127)				453.72	
	TOTAL				2586.88	Y
	Add 15% CPOH on “Y”				388.03	
	TOTAL				2974.91	Z
	Add Cess @ 1% on “Z”				29.75	
	Cost of 10.00 sqm				3004.66	
	Cost of 1.00 sqm				300.47	
	Say				300.45	

13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4379.05	315.29	
	LABOUR					
0155	Mason (average)	day	0.51	857.00	437.07	
0115	Coolie	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete.	L.S.	13.39	2.27	30.40	
9999	Scaffolding and sundries	L.S.	11.7	2.27	26.56	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
0776	Satna lime	quintal	0.01	400.00	4.00	
9999	Indigo gum etc	L.S.	2.08	2.27	4.72	
9999	Sundries ladder etc.	L.S.	0.52	2.27	1.18	
0141	White Washer	day	0.07	816.00	57.12	
0115	Coolie	day	0.07	736.00	51.52	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				2788.31	W
	Add 1 % Water charges on “W”				27.88	
	TOTAL				2816.19	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				599.00	
	TOTAL				3415.19	Y
	Add 15% CPOH on “Y”				512.28	
	TOTAL				3927.47	Z
	Add Cess @ 1% on “Z”				39.27	
	Cost of 10.00 sqm				3966.74	
	Cost of 1.00 sqm				396.67	
	Say				396.65	

13.18 Neat cement punning.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0367	Portland Cement (OPC-43 grade)	tonne	0.022	5156.00	113.43	
2209	Carriage of Cement	tonne	0.022	0.00	0.00	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries	L.S.	8.06	2.27	18.30	
	TOTAL				561.84	W
	Add 1 % Water charges on “W”				5.62	
	TOTAL				567.46	X
	Add GST on “X” (multiplying factor 0.2127)				120.70	
	TOTAL				688.16	Y
	Add 15% CPOH on “Y”				103.22	
	TOTAL				791.38	Z
	Add Cess @ 1% on “Z”				7.91	
	Cost of 10.00 sqm				799.29	
	Cost of 1.00 sqm				79.93	
	Say				79.95	

13.19 Rough cast plaster upto 10 m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.

13.19.1 Ordinary cement finish using ordinary cement

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Under layer 12 mm thick cement plaster					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4211.70	606.48	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0114	Beldar	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	9.88	2.27	22.43	
	Top layer 10 mm thick cement plaster					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.12	4379.05	525.49	
0155	Mason (average)	day	0.61	857.00	522.77	
0114	Beldar	day	0.69	736.00	507.84	
0101	Bhisti	day	0.85	816.00	693.60	
9999	Scaffolding and sundries	L.S.	9.88	2.27	22.43	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	1005.00	100.50	
0101	Bhisti	day	0.01	816.00	8.16	
0777	Dry hydrated lime (factory made)	quintal	0.09	315.00	28.35	
9977	Carriage of lime	L.S.	3.64	2.27	8.26	
0155	Mason (average)	day	0.50	857.00	428.50	
0114	Beldar	day	0.50	736.00	368.00	
0101	Bhisti	day	0.10	816.00	81.60	
9999	Scaffolding and sundries	L.S.	9.88	2.27	22.43	
	Labour for scooping					
0123	Mason 1st class	day	0.25	897.00	224.25	
0114	Beldar	day	0.25	736.00	184.00	
	TOTAL				6232.00	W
	Add 1 % Water charges on “W”				62.32	
	TOTAL				6294.32	X
	Add GST on “X” (multiplying factor 0.2127)				1338.80	
	TOTAL				7633.12	Y
	Add 15% CPOH on “Y”				1144.97	
	TOTAL				8778.09	Z
	Add Cess @ 1% on “Z”				87.78	
	Cost of 10.00 sqm				8865.87	
	Cost of 1.00 sqm				886.59	
	Say				886.60	

13.20 Pebble dash plaster upto 10 m height above ground level with a mixture of washed pebble or crushed stone 6 mm to 12.5 mm nominal size, dashed over and including fresh plaster in two layers under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Under layer 12 mm thick cement plaster					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4211.70	606.48	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0114	Beldar	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	9.88	2.27	22.43	
	Top layer 10 mm thick cement plaster					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.12	4379.05	525.49	
0155	Mason (average)	day	0.61	857.00	522.77	
0114	Beldar	day	0.69	736.00	507.84	
0101	Bhisti	day	0.85	816.00	693.60	
9999	Scaffolding and sundries	L.S.	9.88	2.27	22.43	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	1005.00	100.50	
0101	Bhisti	day	0.01	816.00	8.16	
0777	Dry hydrated lime (factory made)	quintal	0.09	315.00	28.35	
9977	Carriage of lime	L.S.	3.64	2.27	8.26	
0155	Mason (average)	day	0.50	857.00	428.50	
0114	Beldar	day	0.50	736.00	368.00	
0101	Bhisti	day	0.10	816.00	81.60	
9999	Scaffolding and sundries	L.S.	9.88	2.27	22.43	
9999	Scaffolding and sundries	L.S.	4.42	2.27	10.03	
	TOTAL				5833.78	W
	Add 1 % Water charges on “W”				58.34	
	TOTAL				5892.12	X
	Add GST on “X” (multiplying factor 0.2127)				1253.25	
	TOTAL				7145.37	Y
	Add 15% CPOH on “Y”				1071.81	
	TOTAL				8217.18	Z
	Add Cess @ 1% on “Z”				82.17	
	Cost of 10.00 sqm				8299.35	
	Cost of 1.00 sqm				829.94	
	Say				829.95	

13.21 Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 12mm cement plaster 1:3 (1 cement :3 sand) = 10 sqm or 1.47 bags of cement used in the mix.					
	Cement required for 10 sqm =0.144x510= 73.44kg.					
	Water proofing material required @0. 1 kg per 50 kg of cement = 0.147 kg.					
1213	Water proofing materials	kilogram	0.147	45.00	6.62	
9999	Sundries	L.S.	7.150	2.27	16.23	
	TOTAL				22.85	W
	Add 1 % Water charges on “W”				0.23	
	TOTAL				23.08	X
	Add GST on “X” (multiplying factor 0.2127)				4.91	
	TOTAL				27.99	Y
	Add 15% CPOH on “Y”				4.20	
	TOTAL				32.19	Z
	Add Cess @ 1% on “Z”				0.32	
	Cost of 1.47 bags of cement used in the mix.				32.51	
	Cost of 1.00 bag of 50 kg cement used in the mix.				22.12	
	Say				22.10	

13.22 Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
9999	Scaffolding and sundries	L.S.	53.82	2.27	122.17	
	LABOUR					
0155	Mason (average)	day	0.20	857.00	171.40	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.10	816.00	81.60	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				612.20	W
	Add 1 % Water charges on “W”				6.12	
	TOTAL				618.32	X
	Add GST on “X” (multiplying factor 0.2127)				131.52	
	TOTAL				749.84	Y
	Add 15% CPOH on “Y”				112.48	
	TOTAL				862.32	Z
	Add Cess @ 1% on “Z”				8.62	
	Cost of 10.00 sqm				870.94	
	Cost of 1.00 sqm				87.09	
	Say				87.10	

13.23 Extra for plastering on circular work not exceeding 6 m in radius:

13.23.1 In one coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.20	736.00	147.20	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				334.83	W
	Add 1 % Water charges on “W”				3.35	
	TOTAL				338.18	X
	Add GST on “X” (multiplying factor 0.2127)				71.93	
	TOTAL				410.11	Y
	Add 15% CPOH on “Y”				61.52	
	TOTAL				471.63	Z
	Add Cess @ 1% on “Z”				4.72	
	Cost of 10.00 sqm				476.35	
	Cost of 1.00 sqm				47.64	
	Say				47.65	

13.23.2 In two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	0.30	857.00	257.10	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	13.39	2.27	30.40	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				508.30	W
	Add 1 % Water charges on “W”				5.08	
	TOTAL				513.38	X
	Add GST on “X” (multiplying factor 0.2127)				109.20	
	TOTAL				622.58	Y
	Add 15% CPOH on “Y”				93.39	
	TOTAL				715.97	Z
	Add Cess @ 1% on “Z”				7.16	
	Cost of 10.00 sqm				723.13	
	Cost of 1.00 sqm				72.31	
	Say				72.30	

13.24 Extra for plastering done on moulding, cornices or architraves including neat finish to line and level:

13.24.1 In one coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	3.00	857.00	2571.00	
0114	Beldar	day	2.00	736.00	1472.00	
0115	Coolie	day	1.00	736.00	736.00	
0101	Bhisti	day	0.25	816.00	204.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				5013.40	W
	Add 1 % Water charges on “W”				50.13	
	TOTAL				5063.53	X
	Add GST on “X” (multiplying factor 0.2127)				1077.01	
	TOTAL				6140.54	Y
	Add 15% CPOH on “Y”				921.08	
	TOTAL				7061.62	Z
	Add Cess @ 1% on “Z”				70.62	
	Cost of 10.00 sqm				7132.24	
	Cost of 1.00 sqm				713.22	
	Say				713.20	

13.24.2 In two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	5.00	857.00	4285.00	
0114	Beldar	day	3.00	736.00	2208.00	
0115	Coolie	day	2.00	736.00	1472.00	
0101	Bhisti	day	0.33	816.00	269.28	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				8264.68	W
	Add 1 % Water charges on “W”				82.65	
	TOTAL				8347.33	X
	Add GST on “X” (multiplying factor 0.2127)				1775.48	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				10122.81	Y
	Add 15% CPOH on “Y”				1518.42	
	TOTAL				11641.23	Z
	Add Cess @ 1% on “Z”				116.41	
	Cost of 10.00 sqm				11757.64	
	Cost of 1.00 sqm				1175.76	
	Say				1175.75	

13.25 Extra for plastering:

13.25.1 Spherical ceiling

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	0.75	857.00	642.75	
0114	Beldar	day	0.74	736.00	544.64	
9999	Sundries	L.S.	26.91	2.27	61.09	
	TOTAL				1248.48	W
	Add 1 % Water charges on “W”				12.48	
	TOTAL				1260.96	X
	Add GST on “X” (multiplying factor 0.2127)				268.21	
	TOTAL				1529.17	Y
	Add 15% CPOH on “Y”				229.38	
	TOTAL				1758.55	Z
	Add Cess @ 1% on “Z”				17.59	
	Cost of 10.00 sqm				1776.14	
	Cost of 1.00 sqm				177.61	
	Say				177.60	

13.25.2 Groined ceiling

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	0.80	857.00	685.60	
0114	Beldar	day	0.80	736.00	588.80	
9999	Sundries	L.S.	34.06	2.27	77.32	
	TOTAL				1351.72	W
	Add 1 % Water charges on “W”				13.52	
	TOTAL				1365.24	X
	Add GST on “X” (multiplying factor 0.2127)				290.39	
	TOTAL				1655.63	Y
	Add 15% CPOH on “Y”				248.34	
	TOTAL				1903.97	Z
	Add Cess @ 1% on “Z”				19.04	
	Cost of 10.00 sqm				1923.01	
	Cost of 1.00 sqm				192.30	
	Say				192.30	

13.25.3 Flewing soffits

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	0.50	857.00	428.50	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				826.90	W
	Add 1 % Water charges on “W”				8.27	
	TOTAL				835.17	X
	Add GST on “X” (multiplying factor 0.2127)				177.64	
	TOTAL				1012.81	Y
	Add 15% CPOH on “Y”				151.92	
	TOTAL				1164.73	Z
	Add Cess @ 1% on “Z”				11.65	
	Cost of 10.00 sqm				1176.38	
	Cost of 1.00 sqm				117.64	
	Say				117.65	

13.26 Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Plaster of paris 10x0.002x1121 = 22.42kg					
	Add 2% wastage= 0.45kg					
	Total = 22.87kg. Say23kg					
0869	Plaster of Paris	kilogram	23.00	7.00	161.00	
9977	Carriage of plaster of paris	L.S.	3.90	2.27	8.85	
	LABOUR					
0122	Mason (for plaster of paris work) 1st class	day	0.91	897.00	816.27	
0114	Beldar	day	0.91	736.00	669.76	
9999	Scaffolding and sundries	L.S.	83.98	2.27	190.63	
	TOTAL				1846.51	W
	Add 1 % Water charges on “W”				18.47	
	TOTAL				1864.98	X
	Add GST on “X” (multiplying factor 0.2127)				396.68	
	TOTAL				2261.66	Y
	Add 15% CPOH on “Y”				339.25	
	TOTAL				2600.91	Z
	Add Cess @ 1% on “Z”				26.01	
	Cost of 10.00 sqm				2626.92	
	Cost of 1.00 sqm				262.69	
	Say				262.70	

13.27 Extra for lining out plaster to imitate stone or concrete blocks walling.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0155	Mason (average)	day	0.50	857.00	428.50	
0114	Beldar	day	0.50	736.00	368.00	
9999	Solution of lime putty	L.S.	1.82	2.27	4.13	
	TOTAL				800.63	W
	Add 1 % Water charges on “W”				8.01	
	TOTAL				808.64	X
	Add GST on “X” (multiplying factor 0.2127)				172.00	
	TOTAL				980.64	Y
	Add 15% CPOH on “Y”				147.10	
	TOTAL				1127.74	Z
	Add Cess @ 1% on “Z”				11.28	
	Cost of 10.00 sqm				1139.02	
	Cost of 1.00 sqm				113.90	
	Say				113.90	

13.28 12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand):

13.28.1 Flush Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3708.80	51.92	
	LABOUR					
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				526.08	W
	Add 1 % Water charges on “W”				5.26	
	TOTAL				531.34	X
	Add GST on “X” (multiplying factor 0.2127)				113.02	
	TOTAL				644.36	Y
	Add 15% CPOH on “Y”				96.65	
	TOTAL				741.01	Z
	Add Cess @ 1% on “Z”				7.41	
	Cost of 10.00 metre long and 10 cm wide band				748.42	
	Cost of 1.00 metre long and 1 cm wide band				7.48	
	Say				7.50	

13.28.2 Sunk Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3708.80	51.92	
	LABOUR					
0155	Mason (average)	day	0.30	857.00	257.10	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries	L.S.	2.08	2.27	4.72	
	TOTAL				575.34	W
	Add 1 % Water charges on “W”				5.75	
	TOTAL				581.09	X
	Add GST on “X” (multiplying factor 0.2127)				123.60	
	TOTAL				704.69	Y
	Add 15% CPOH on “Y”				105.70	
	TOTAL				810.39	Z
	Add Cess @ 1% on “Z”				8.10	
	Cost of 10.00 metre long and 10 cm wide band				818.49	
	Cost of 1.00 metre long and 1 cm wide band				8.18	
	Say				8.20	

13.28.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3708.80	51.92	
	LABOUR					
0155	Mason (average)	day	0.35	857.00	299.95	
0115	Coolie	day	0.35	736.00	257.60	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				656.47	W
	Add 1 % Water charges on “W”				6.56	
	TOTAL				663.03	X
	Add GST on “X” (multiplying factor 0.2127)				141.03	
	TOTAL				804.06	Y
	Add 15% CPOH on “Y”				120.61	
	TOTAL				924.67	Z
	Add Cess @ 1% on “Z”				9.25	
	Cost of 10.00 metre long and 10 cm wide band				933.92	
	Cost of 1.00 metre long and 1 cm wide band				9.34	
	Say				9.35	

13.28.4 Moulded Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3708.80	51.92	
	LABOUR					
0155	Mason (average)	day	0.65	857.00	557.05	
0115	Coolie	day	0.65	736.00	478.40	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries	L.S.	1.56	2.27	3.54	
	TOTAL				1131.71	W
	Add 1 % Water charges on “W”				11.32	
	TOTAL				1143.03	X
	Add GST on “X” (multiplying factor 0.2127)				243.12	
	TOTAL				1386.15	Y
	Add 15% CPOH on “Y”				207.92	
	TOTAL				1594.07	Z
	Add Cess @ 1% on “Z”				15.94	
	Cost of 10.00 metre long and 10 cm wide band				1610.01	
	Cost of 1.00 metre long and 1 cm wide band				16.10	
	Say				16.10	

13.29 18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand):

13.29.1 Flush Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3708.80	74.18	
	LABOUR					
0155	Mason (average)	day	0.32	857.00	274.24	
0115	Coolie	day	0.32	736.00	235.52	
0101	Bhisti	day	0.06	816.00	48.96	
9999	Sundries	L.S.	2.08	2.27	4.72	
	TOTAL				637.62	W
	Add 1 % Water charges on “W”				6.38	
	TOTAL				644.00	X
	Add GST on “X” (multiplying factor 0.2127)				136.98	
	TOTAL				780.98	Y
	Add 15% CPOH on “Y”				117.15	
	TOTAL				898.13	Z
	Add Cess @ 1% on “Z”				8.98	
	Cost of 10.00 metre long and 10 cm wide band				907.11	
	Cost of 1.00 metre long and 1 cm wide band				9.07	
	Say				9.05	

13.29.2 Sunk Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3708.80	74.18	
	LABOUR					
0155	Mason (average)	day	0.36	857.00	308.52	
0115	Coolie	day	0.36	736.00	264.96	
0101	Bhisti	day	0.06	816.00	48.96	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				702.82	W
	Add 1 % Water charges on “W”				7.03	
	TOTAL				709.85	X
	Add GST on “X” (multiplying factor 0.2127)				150.99	
	TOTAL				860.84	Y
	Add 15% CPOH on “Y”				129.13	
	TOTAL				989.97	Z
	Add Cess @ 1% on “Z”				9.90	
	Cost of 10.00 metre long and 10 cm wide band				999.87	
	Cost of 1.00 metre long and 1 cm wide band				10.00	
	Say				10.00	

13.29.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3708.80	74.18	
	LABOUR					
0155	Mason (average)	day	0.42	857.00	359.94	
0115	Coolie	day	0.42	736.00	309.12	
0101	Bhisti	day	0.06	816.00	48.96	
9999	Sundries	L.S.	4.42	2.27	10.03	
	TOTAL				802.23	W
	Add 1 % Water charges on “W”				8.02	
	TOTAL				810.25	X
	Add GST on “X” (multiplying factor 0.2127)				172.34	
	TOTAL				982.59	Y
	Add 15% CPOH on “Y”				147.39	
	TOTAL				1129.98	Z
	Add Cess @ 1% on “Z”				11.30	
	Cost of 10.00 metre long and 10 cm wide band				1141.28	
	Cost of 1.00 metre long and 1 cm wide band				11.41	
	Say				11.40	

13.29.4 Moulded Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.024	3708.80	89.01	
	LABOUR					
0155	Mason (average)	day	0.86	857.00	737.02	
0115	Coolie	day	0.86	736.00	632.96	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				1505.99	W
	Add 1 % Water charges on “W”				15.06	
	TOTAL				1521.05	X
	Add GST on “X” (multiplying factor 0.2127)				323.53	
	TOTAL				1844.58	Y
	Add 15% CPOH on “Y”				276.69	
	TOTAL				2121.27	Z
	Add Cess @ 1% on “Z”				21.21	
	Cost of 10.00 metre long and 10 cm wide band				2142.48	
	Cost of 1.00 metre long and 1 cm wide band				21.42	
	Say				21.40	

13.30 18 mm thick moulded cement mortar band in two coats under layer 12 mm thick with cement mortar 1:5 (1 cement : 5 coarse sand) top layer 6 mm thick with cement mortar 1:4 (1 cement : 4 fine sand).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre long and 10 cm wide band					
	MATERIAL					
	Cement mortar 1 : 5 (1 cement : 5 coarse sand)					
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.014	3850.75	53.91	
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.01	3708.80	37.09	
	LABOUR					
0155	Mason (average)	day	0.86	857.00	737.02	
0115	Coolie	day	0.86	736.00	632.96	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				1507.98	W
	Add 1 % Water charges on “W”				15.08	
	TOTAL				1523.06	X
	Add GST on “X” (multiplying factor 0.2127)				323.95	
	TOTAL				1847.01	Y
	Add 15% CPOH on “Y”				277.05	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2124.06	Z
	Add Cess @ 1% on "Z"				21.24	
	Cost of 10.00 metre long and 10 cm wide band				2145.30	
	Cost of 1.00 metre long and 1 cm wide band				21.45	
	Say				21.45	

13.31 Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):

13.31.1 Flush / Ruled/ Struck or weathered pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.03	4379.05	131.37	
	LABOUR					
0155	Mason (average)	day	0.50	857.00	428.50	
0115	Coolie	day	0.60	736.00	441.60	
0101	Bhisti	day	0.93	816.00	758.88	
9999	Sundries	L.S.	7.15	2.27	16.23	
9999	Scaffolding and racking out joints including sundries	L.S.	14.30	2.27	32.46	
	TOTAL				1809.04	W
	Add 1 % Water charges on "W"				18.09	
	TOTAL				1827.13	X
	Add GST on "X" (multiplying factor 0.2127)				388.63	
	TOTAL				2215.76	Y
	Add 15% CPOH on "Y"				332.36	
	TOTAL				2548.12	Z
	Add Cess @ 1% on "Z"				25.48	
	Cost of 10.00 sqm				2573.60	
	Cost of 1.00 sqm				257.36	
	Say				257.35	

13.31.2 Raised and cut pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.046	4379.05	201.44	
	LABOUR					
0155	Mason (average)	day	1.07	857.00	916.99	
0115	Coolie	day	1.31	736.00	964.16	
0101	Bhisti	day	1.00	816.00	816.00	
9999	Sundries	L.S.	7.15	2.27	16.23	
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.27	36.59	
	TOTAL				2951.41	W
	Add 1 % Water charges on "W"				29.51	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2980.92	X
	Add GST on “X” (multiplying factor 0.2127)				634.04	
	TOTAL				3614.96	Y
	Add 15% CPOH on “Y”				542.24	
	TOTAL				4157.20	Z
	Add Cess @ 1% on “Z”				41.57	
	Cost of 10.00 sqm				4198.77	
	Cost of 1.00 sqm				419.88	
	Say				419.90	

13.32 Pointing on tile brick work with cement mortar 1:3 (1 cement : 3 fine sand):

13.32.1 Flush/ Ruled/ Struck or weathered pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.046	4379.05	201.44	
9999	Sundries	L.S.	7.15	2.27	16.23	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0115	Coolie	day	0.80	736.00	588.80	
0101	Bhisti	day	1.28	816.00	1044.48	
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.27	36.59	
	TOTAL				2461.73	W
	Add 1 % Water charges on “W”				24.62	
	TOTAL				2486.35	X
	Add GST on “X” (multiplying factor 0.2127)				528.85	
	TOTAL				3015.20	Y
	Add 15% CPOH on “Y”				452.28	
	TOTAL				3467.48	Z
	Add Cess @ 1% on “Z”				34.67	
	Cost of 10.00 sqm				3502.15	
	Cost of 1.00 sqm				350.22	
	Say				350.20	

13.33 Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :

13.33.1 Flush/ Ruled pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.023	4379.05	100.72	
9999	Sundries	L.S.	7.15	2.27	16.23	
	LABOUR					
0155	Mason (average)	day	0.92	857.00	788.44	
0115	Coolie	day	1.37	736.00	1008.32	
0101	Bhisti	day	0.93	816.00	758.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.27	36.59	
	TOTAL				2709.18	W
	Add 1 % Water charges on “W”				27.09	
	TOTAL				2736.27	X
	Add GST on “X” (multiplying factor 0.2127)				582.00	
	TOTAL				3318.27	Y
	Add 15% CPOH on “Y”				497.74	
	TOTAL				3816.01	Z
	Add Cess @ 1% on “Z”				38.16	
	Cost of 10.00 sqm				3854.17	
	Cost of 1.00 sqm				385.42	
	Say				385.40	

13.33.2 Raised and cut pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.038	4379.05	166.40	
9999	Sundries	L.S.	7.15	2.27	16.23	
	LABOUR					
0155	Mason (average)	day	2.00	857.00	1714.00	
0115	Coolie	day	2.96	736.00	2178.56	
0101	Bhisti	day	1.00	816.00	816.00	
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.27	36.59	
	TOTAL				4927.78	W
	Add 1 % Water charges on “W”				49.28	
	TOTAL				4977.06	X
	Add GST on “X” (multiplying factor 0.2127)				1058.62	
	TOTAL				6035.68	Y
	Add 15% CPOH on “Y”				905.35	
	TOTAL				6941.03	Z
	Add Cess @ 1% on “Z”				69.41	
	Cost of 10.00 sqm				7010.44	
	Cost of 1.00 sqm				701.04	
	Say				701.05	

13.34 Raised and cut pointing on stone work in white cement mortar 1:3 (1 white cement : 3 marble dust).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	White Cement mortar 1:3 (1 white cement : 3 marble dust)					
3.16	Rate as per Item Number 3.16 of SH: Mortars	cum	0.038	7318.50	278.10	
9999	Sundries	L.S.	7.15	2.27	16.23	
	LABOUR					
0155	Mason (average)	day	2.00	857.00	1714.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	2.96	736.00	2178.56	
0101	Bhisti	day	1.00	816.00	816.00	
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.27	36.59	
	TOTAL				5039.48	W
	Add 1 % Water charges on “W”				50.39	
	TOTAL				5089.87	X
	Add GST on “X” (multiplying factor 0.2127)				1082.62	
	TOTAL				6172.49	Y
	Add 15% CPOH on “Y”				925.87	
	TOTAL				7098.36	Z
	Add Cess @ 1% on “Z”				70.98	
	Cost of 10.00 sqm				7169.34	
	Cost of 1.00 sqm				716.93	
	Say				716.95	

13.35 Pointing on stone slab ceiling with cement mortar 1:2 (1 cement : 2 fine sand):

13.35.1 Flush/ Ruled pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1:2 (1 cement : 2 fine sand)					
3.2	Rate as per Item Number 3.2 of SH: Mortars	cum	0.015	5138.00	77.07	
	LABOUR					
0155	Mason (average)	day	0.47	857.00	402.79	
0115	Coolie	day	0.69	736.00	507.84	
0101	Bhisti	day	0.59	816.00	481.44	
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.27	36.59	
	TOTAL				1505.73	W
	Add 1 % Water charges on “W”				15.06	
	TOTAL				1520.79	X
	Add GST on “X” (multiplying factor 0.2127)				323.47	
	TOTAL				1844.26	Y
	Add 15% CPOH on “Y”				276.64	
	TOTAL				2120.90	Z
	Add Cess @ 1% on “Z”				21.21	
	Cost of 10.00 sqm				2142.11	
	Cost of 1.00 sqm				214.21	
	Say				214.20	

13.36 Extra for pointing on walls on the outside at height more than 10 m from ground level for every additional height of 3 m or part there of.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
9999	Scaffolding	L.S.	13.39	2.27	30.40	
9999	Sundries	L.S.	13.39	2.27	30.40	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				60.80	W
	Add 1 % Water charges on “W”				0.61	
	TOTAL				61.41	X
	Add GST on “X” (multiplying factor 0.2127)				13.06	
	TOTAL				74.47	Y
	Add 15% CPOH on “Y”				11.17	
	TOTAL				85.64	Z
	Add Cess @ 1% on “Z”				0.86	
	Cost of 10.00 sqm				86.50	
	Cost of 1.00 sqm				8.65	
	Say				8.65	

13.37 White washing with lime to give an even shade :

13.37.1 New work (three or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0775	Dehradun white lime	quintal	0.03	650.00	19.50	
9977	Carriage of lime	L.S.	0.91	2.27	2.07	
	LABOUR					
0141	White Washer	day	0.20	816.00	163.20	
0115	Coolie	day	0.10	736.00	73.60	
9999	Indigo gum etc	L.S.	4.42	2.27	10.03	
9999	Sundries ladders etc	L.S.	2.73	2.27	6.20	
	TOTAL				274.60	W
	Add 1 % Water charges on “W”				2.75	
	TOTAL				277.35	X
	Add GST on “X” (multiplying factor 0.2127)				58.99	
	TOTAL				336.34	Y
	Add 15% CPOH on “Y”				50.45	
	TOTAL				386.79	Z
	Add Cess @ 1% on “Z”				3.87	
	Cost of 10.00 sqm				390.66	
	Cost of 1.00 sqm				39.07	
	Say				39.05	

13.38 Satna lime wash on walls with one coat.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0776	Satna lime	quintal	0.01	400.00	4.00	
9977	Carriage of lime	L.S.	2.08	2.27	4.72	
9999	Indigo gum etc	L.S.	0.52	2.27	1.18	
	LABOUR					
0141	White Washer	day	0.08	816.00	65.28	
0115	Coolie	day	0.04	736.00	29.44	
9999	Sundries ladders etc	L.S.	2.73	2.27	6.20	
	TOTAL				110.82	W
	Add 1 % Water charges on “W”				1.11	
	TOTAL				111.93	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				23.81	
	TOTAL				135.74	Y
	Add 15% CPOH on “Y”				20.36	
	TOTAL				156.10	Z
	Add Cess @ 1% on “Z”				1.56	
	Cost of 10.00 sqm				157.66	
	Cost of 1.00 sqm				15.77	
	Say				15.75	

13.39 Colour washing such as green, blue or buff to give an even shade :

13.39.1 New work (two or more coats) with a base coat of white washing with lime

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0775	Dehradun white lime	quintal	0.03	650.00	19.50	
9977	Carriage of lime	L.S.	8.06	2.27	18.30	
9999	Add for colouring stuff	L.S.	0.91	2.27	2.07	
	LABOUR					
0141	White Washer	day	0.30	816.00	244.80	
0115	Coolie	day	0.10	736.00	73.60	
9999	Indigo gum etc	L.S.	4.42	2.27	10.03	
9999	Sundries ladders etc	L.S.	2.73	2.27	6.20	
	TOTAL				374.50	W
	Add 1 % Water charges on “W”				3.75	
	TOTAL				378.25	X
	Add GST on “X” (multiplying factor 0.2127)				80.45	
	TOTAL				458.70	Y
	Add 15% CPOH on “Y”				68.81	
	TOTAL				527.51	Z
	Add Cess @ 1% on “Z”				5.28	
	Cost of 10.00 sqm				532.79	
	Cost of 1.00 sqm				53.28	
	Say				53.30	

13.39.2 New work (two or more coats) with a base coat of whiting

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0775	Dehradun white lime	quintal	0.03	650.00	19.50	
9977	Carriage of lime	L.S.	8.06	2.27	18.30	
9999	Add for colouring stuff	L.S.	0.91	2.27	2.07	
	LABOUR					
0141	White Washer	day	0.30	816.00	244.80	
0115	Coolie	day	0.10	736.00	73.60	
9999	Indigo gum etc	L.S.	2.73	2.27	6.20	
9999	Sundries ladders etc	L.S.	2.73	2.27	6.20	
	TOTAL				370.67	W
	Add 1 % Water charges on “W”				3.71	
	TOTAL				374.38	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				79.63	
	TOTAL				454.01	Y
	Add 15% CPOH on "Y"				68.10	
	TOTAL				522.11	Z
	Add Cess @ 1% on "Z"				5.22	
	Cost of 10.00 sqm				527.33	
	Cost of 1.00 sqm				52.73	
	Say				52.75	

13.41 Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gram/litre, of approved manufacturer and of required shade and colour all complete to achieve even shade and colour :

13.41.1 New work (two or more coats) over and including water thinnable priming coat with cement primer having VOC content less than 50 gram/litre

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gram/litre	litre	0.70	40.00	28.00	
9988	Sundries for brushes,sand paper & putty for filling holes including Carriage for primer	L.S.	8.06	2.27	18.30	
0802	Acrylic distemper 1st quality , having VOC content less than 50 gram/ litre	kilogram	1.25	45.00	56.25	
9988	Sundries for brushes,sand paper including Carriage for distemper	L.S.	8.06	2.27	18.30	
	LABOUR					
0131	Painter	day	1.00	816.00	816.00	
0115	Coolie	day	0.50	736.00	368.00	
				2.27	0.00	
	TOTAL				1304.85	W
	Add 1 % Water charges on "W"				13.05	
	TOTAL				1317.90	X
	Add GST on "X" (multiplying factor 0.2127)				280.32	
	TOTAL				1598.22	Y
	Add 15% CPOH on "Y"				239.73	
	TOTAL				1837.95	Z
	Add Cess @ 1% on "Z"				18.38	
	Cost of 10.00 sqm				1856.33	
	Cost of 1.00 sqm				185.63	
	Say				185.65	

13.44 Finishing walls with water proofing cement paint of required shade :

13.44.1 New work (Two or more coats applied @ 3.84 kg/10 sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0851	Water proofing cement paint	kilogram	3.84	41.00	157.44	
9977	Carriage of material	L.S.	1.56	2.27	3.54	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0131	Painter	day	0.46	816.00	375.36	
0115	Coolie	day	0.23	736.00	169.28	
0101	Bhisti	day	0.10	816.00	81.60	
9999	Brushes, sand paper etc	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				821.75	W
	Add 1 % Water charges on “W”				8.22	
	TOTAL				829.97	X
	Add GST on “X” (multiplying factor 0.2127)				176.53	
	TOTAL				1006.50	Y
	Add 15% CPOH on “Y”				150.98	
	TOTAL				1157.48	Z
	Add Cess @ 1% on “Z”				11.57	
	Cost of 10.00 sqm				1169.05	
	Cost of 1.00 sqm				116.91	
	Say				116.90	

13.45 Finishing walls with textured exterior paint of required shade :

13.45.1 New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8507	Textured exterior paint	litre	3.28	185.00	606.80	
0837	Acrylic Exterior Primer	kilogram	2.20	80.00	176.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Brushes, sand paper etc	L.S.	7.02	2.27	15.94	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1571.78	W
	Add 1 % Water charges on “W”				15.72	
	TOTAL				1587.50	X
	Add GST on “X” (multiplying factor 0.2127)				337.66	
	TOTAL				1925.16	Y
	Add 15% CPOH on “Y”				288.77	
	TOTAL				2213.93	Z
	Add Cess @ 1% on “Z”				22.14	
	Cost of 10.00 sqm				2236.07	
	Cost of 1.00 sqm				223.61	
	Say				223.60	

13.46 Finishing walls with Acrylic Smooth exterior paint of required shade :

13.46.1 New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8505	Acrylic exterior paint	litre	1.67	170.00	283.90	
0837	Acrylic Exterior Primer	litre	0.90	80.00	72.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries for brushes,sand paper & putty for filling holes etc	L.S.	8.06	2.27	18.30	
	TOTAL				1128.94	W
	Add 1 % Water charges on “W”				11.29	
	TOTAL				1140.23	X
	Add GST on “X” (multiplying factor 0.2127)				242.53	
	TOTAL				1382.76	Y
	Add 15% CPOH on “Y”				207.41	
	TOTAL				1590.17	Z
	Add Cess @ 1% on “Z”				15.90	
	Cost of 10.00 sqm				1606.07	
	Cost of 1.00 sqm				160.61	
	Say				160.60	

13.47 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:

13.47.1 New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8506	Premium Acrylic exterior paint	litre	1.43	250.00	357.50	
0837	Acrylic Exterior Primer	litre	0.90	80.00	72.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries for brushes,sand paper & putty for filling holes etc	L.S.	8.06	2.27	18.30	
	TOTAL				1202.54	W
	Add 1 % Water charges on “W”				12.03	
	TOTAL				1214.57	X
	Add GST on “X” (multiplying factor 0.2127)				258.34	
	TOTAL				1472.91	Y
	Add 15% CPOH on “Y”				220.94	
	TOTAL				1693.85	Z
	Add Cess @ 1% on “Z”				16.94	
	Cost of 10.00 sqm				1710.79	
	Cost of 1.00 sqm				171.08	
	Say				171.10	

13.48 Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :

13.48.1 Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8504	Multi surface paint	litre	1.25	350.00	437.50	
8509	Special Primer (C.W.)	litre	0.75	180.00	135.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Brushes, sand paper etc	L.S.	7.02	2.27	15.94	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1361.48	W
	Add 1 % Water charges on “W”				13.61	
	TOTAL				1375.09	X
	Add GST on “X” (multiplying factor 0.2127)				292.48	
	TOTAL				1667.57	Y
	Add 15% CPOH on “Y”				250.14	
	TOTAL				1917.71	Z
	Add Cess @ 1% on “Z”				19.18	
	Cost of 10.00 sqm				1936.89	
	Cost of 1.00 sqm				193.69	
	Say				193.70	

13.48.2 Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8504	Multi surface paint	litre	0.90	350.00	315.00	
8509	Special Primer (C.W.)	litre	0.75	180.00	135.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Brushes, sand paper etc	L.S.	7.02	2.27	15.94	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1238.98	W
	Add 1 % Water charges on “W”				12.39	
	TOTAL				1251.37	X
	Add GST on “X” (multiplying factor 0.2127)				266.17	
	TOTAL				1517.54	Y
	Add 15% CPOH on “Y”				227.63	
	TOTAL				1745.17	Z
	Add Cess @ 1% on “Z”				17.45	
	Cost of 10.00 sqm				1762.62	
	Cost of 1.00 sqm				176.26	
	Say				176.25	

13.48.3 Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8504	Multi surface paint	litre	0.90	350.00	315.00	
8510	Metal Primer (U.G.)	litre	0.80	120.00	96.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Brushes, sand paper etc	L.S.	7.02	2.27	15.94	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1199.98	W
	Add 1 % Water charges on “W”				12.00	
	TOTAL				1211.98	X
	Add GST on “X” (multiplying factor 0.2127)				257.79	
	TOTAL				1469.77	Y
	Add 15% CPOH on “Y”				220.47	
	TOTAL				1690.24	Z
	Add Cess @ 1% on “Z”				16.90	
	Cost of 10.00 sqm				1707.14	
	Cost of 1.00 sqm				170.71	
	Say				170.70	

13.48A Finishing walls with ready mixed Premium acrylic emulsion paint (Company Depot Tinted) having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade with silicon additives.

13.48A.1 New work (Two or more coats applied @ 1.43 litre/ 10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm (Based on item no 13.47)					
	Material					
0836	100% Premium acrylic dirt resistance, Silicone additives exterior paint	litre	1.43	300.00	429.00	
0837	Acrylic Exterior Primer	litre	0.90	80.00	72.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	Labour					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.30	736.00	220.80	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Sundries for brushes,sand paper & putty for filling holes etc	L.S.	8.06	2.27	18.30	
	TOTAL				1274.04	W
	Add 1 % Water charges on “W”				12.74	
	TOTAL				1286.78	X
	Add GST on “X” (multiplying factor 0.2127)				273.70	
	TOTAL				1560.48	Y
	Add 15% CPOH on “Y”				234.07	
	TOTAL				1794.55	Z
	Add Cess @ 1% on “Z”				17.95	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cost of 10 sqm				1812.50	
	Cost of 1 sqm				181.25	
	Say				181.25	

13.50 Applying priming coat:

13.50.2 With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
4201	Aluminium primer	litre	0.75	140.00	105.00	
9999	Putty	L.S.	2.73	2.27	6.20	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Sundries for Brushes, sand paper etc	L.S.	10.79	2.27	24.49	
	TOTAL				524.58	W
	Add 1 % Water charges on “W”				5.25	
	TOTAL				529.83	X
	Add GST on “X” (multiplying factor 0.2127)				112.69	
	TOTAL				642.52	Y
	Add 15% CPOH on “Y”				96.38	
	TOTAL				738.90	Z
	Add Cess @ 1% on “Z”				7.39	
	Cost of 10.00 sqm				746.29	
	Cost of 1.00 sqm				74.63	
	Say				74.65	

13.50.3 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.54	140.00	75.60	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.24	816.00	195.84	
0115	Coolie	day	0.24	736.00	176.64	
9999	Brushes,sand paper including sundries	L.S.	10.79	2.27	24.49	
	TOTAL				473.75	W
	Add 1 % Water charges on “W”				4.74	
	TOTAL				478.49	X
	Add GST on “X” (multiplying factor 0.2127)				101.77	
	TOTAL				580.26	Y
	Add 15% CPOH on “Y”				87.04	
	TOTAL				667.30	Z
	Add Cess @ 1% on “Z”				6.67	
	Cost of 10.00 sqm				673.97	
	Cost of 1.00 sqm				67.40	
	Say				67.40	

13.50.4 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.36	140.00	50.40	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.12	816.00	97.92	
0115	Coolie	day	0.12	736.00	88.32	
9999	Brushes,sand paper including sundries	L.S.	7.15	2.27	16.23	
	TOTAL				253.76	W
	Add 1 % Water charges on “W”				2.54	
	TOTAL				256.30	X
	Add GST on “X” (multiplying factor 0.2127)				54.52	
	TOTAL				310.82	Y
	Add 15% CPOH on “Y”				46.62	
	TOTAL				357.44	Z
	Add Cess @ 1% on “Z”				3.57	
	Cost of 10.00 sqm				361.01	
	Cost of 1.00 sqm				36.10	
	Say				36.10	

13.51 Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces:

13.51.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0801	Silicon and acrylic emulsion	litre	1.80	140.00	252.00	
9977	Carriage of material	L.S.	0.52	2.27	1.18	
9999	Putty etc	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.27	816.00	220.32	
0115	Coolie	day	0.27	736.00	198.72	
9999	Brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	10.79	2.27	24.49	
	TOTAL				715.01	W
	Add 1 % Water charges on “W”				7.15	
	TOTAL				722.16	X
	Add GST on “X” (multiplying factor 0.2127)				153.60	
	TOTAL				875.76	Y
	Add 15% CPOH on “Y”				131.36	
	TOTAL				1007.12	Z
	Add Cess @ 1% on “Z”				10.07	
	Cost of 10.00 sqm				1017.19	
	Cost of 1.00 sqm				101.72	
	Say				101.70	

13.51.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0801	Silicon and acrylic emulsion	litre	2.88	140.00	403.20	
9977	Carriage of material	L.S.	0.52	2.27	1.18	
9999	Putty etc	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.43	816.00	350.88	
0115	Coolie	day	0.43	736.00	316.48	
9999	Brushes, sand paper etc	L.S.	8.53	2.27	19.36	
9999	Sundries	L.S.	17.26	2.27	39.18	
	TOTAL				1136.48	W
	Add 1 % Water charges on “W”				11.36	
	TOTAL				1147.84	X
	Add GST on “X” (multiplying factor 0.2127)				244.15	
	TOTAL				1391.99	Y
	Add 15% CPOH on “Y”				208.80	
	TOTAL				1600.79	Z
	Add Cess @ 1% on “Z”				16.01	
	Cost of 10.00 sqm				1616.80	
	Cost of 1.00 sqm				161.68	
	Say				161.70	

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer’s specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.1 On steel work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	PRIMING COAT					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.75	140.00	105.00	
9999	Putty	L.S.	2.73	2.27	6.20	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Brushes, sand paper etc	L.S.	5.46	2.27	12.39	
9999	Sundries	L.S.	10.66	2.27	24.20	
	EPOXY PAINTING					
	MATERIAL					
7239	Epoxy paint	litre	1.25	230.00	287.50	
9977	Carriage of material	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1699.16	W
	Add 1 % Water charges on “W”				16.99	
	TOTAL				1716.15	X
	Add GST on “X” (multiplying factor 0.2127)				365.03	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2081.18	Y
	Add 15% CPOH on "Y"				312.18	
	TOTAL				2393.36	Z
	Add Cess @ 1% on "Z"				23.93	
	Cost of 10.00 sqm				2417.29	
	Cost of 1.00 sqm				241.73	
	Say				241.75	

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	PRIMING COAT					
	MATERIAL					
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 grams/ litre	litre	0.84	40.00	33.60	
9999	Putty	L.S.	13.52	2.27	30.69	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Brushes, sand paper etc	L.S.	2.73	2.27	6.20	
9999	Sundries	L.S.	8.06	2.27	18.30	
	EPOXY PAINTING					
	MATERIAL					
7239	Epoxy paint	litre	1.21	230.00	278.30	
9999	Materials for filling in holes and cracks	L.S.	6.76	2.27	15.35	
9977	Carriage of material	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Putty, brushes, sand paper etc	L.S.	10.79	2.27	24.49	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				1652.79	W
	Add 1 % Water charges on "W"				16.53	
	TOTAL				1669.32	X
	Add GST on "X" (multiplying factor 0.2127)				355.06	
	TOTAL				2024.38	Y
	Add 15% CPOH on "Y"				303.66	
	TOTAL				2328.04	Z
	Add Cess @ 1% on "Z"				23.28	
	Cost of 10.00 sqm				2351.32	
	Cost of 1.00 sqm				235.13	
	Say				235.15	

13.53 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.53.1 New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	PRIMING COAT					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.36	140.00	50.40	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.12	816.00	97.92	
0114	Beldar	day	0.12	736.00	88.32	
9999	Brushes, sand paper etc	L.S.	7.15	2.27	16.23	
	Synthetic enamel painting					
	MATERIAL					
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.80	178.00	142.40	
9977	Carriage	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1271.14	W
	Add 1 % Water charges on “W”				12.71	
	TOTAL				1283.85	X
	Add GST on “X” (multiplying factor 0.2127)				273.07	
	TOTAL				1556.92	Y
	Add 15% CPOH on “Y”				233.54	
	TOTAL				1790.46	Z
	Add Cess @ 1% on “Z”				17.90	
	Cost of 10.00 sqm				1808.36	
	Cost of 1.00 sqm				180.84	
	Say				180.85	

13.54 Applying a coat of mordant solution on G.S. sheet:

13.54.1 With a solution of 38 gms of copper acetate in a litre of soft water

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 25 sqm					
	MATERIAL					
4203	Copper acetate	kilogram	0.038	330.00	12.54	
9999	Soft Water	L.S.	1.82	2.27	4.13	
9977	Carriage	L.S.	0.91	2.27	2.07	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.60	736.00	441.60	
9999	Brushes, sand paper etc	L.S.	35.88	2.27	81.45	
9999	Sundries	L.S.	35.88	2.27	81.45	
	TOTAL				1112.84	W
	Add 1 % Water charges on “W”				11.13	
	TOTAL				1123.97	X
	Add GST on “X” (multiplying factor 0.2127)				239.07	
	TOTAL				1363.04	Y
	Add 15% CPOH on “Y”				204.46	
	TOTAL				1567.50	Z
	Add Cess @ 1% on “Z”				15.68	
	Cost of 25 sqm				1583.18	
	Cost of 1.00 sqm				63.33	
	Say				63.35	

13.54.2 With a solution made of 13 gms of hydrochloric acid in a solution of 13 gms each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 25 sqm					
	MATERIAL					
4204	Hydrochloric acid	kilogram	0.013	40.00	0.52	
4205	Copper chloride	kilogram	0.013	330.00	4.29	
4206	Copper nitrate	kilogram	0.013	225.00	2.93	
4207	Ammonium chloride	kilogram	0.013	25.00	0.33	
9999	Soft Water	L.S.	1.82	2.27	4.13	
9977	Carriage	L.S.	0.91	2.27	2.07	
	LABOUR					
0131	Painter	day	0.60	816.00	489.60	
0115	Coolie	day	0.60	736.00	441.60	
9999	Brushes, sand paper etc	L.S.	35.88	2.27	81.45	
9999	Sundries	L.S.	35.88	2.27	81.45	
	TOTAL				1108.37	W
	Add 1 % Water charges on “W”				11.08	
	TOTAL				1119.45	X
	Add GST on “X” (multiplying factor 0.2127)				238.11	
	TOTAL				1357.56	Y
	Add 15% CPOH on “Y”				203.63	
	TOTAL				1561.19	Z
	Add Cess @ 1% on “Z”				15.61	
	Cost of 25 sqm				1576.80	
	Cost of 1.00 sqm				63.07	
	Say				63.05	

13.55 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work:

13.55.1 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x106.4mm x30m =10.032sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.54	140.00	75.60	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.24	816.00	195.84	
0115	Coolie	day	0.24	736.00	176.64	
9999	Brushes, sand paper etc	L.S.	10.79	2.27	24.49	
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.95	120.00	114.00	
9977	Carriage	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Putty, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
9999	Wire brushes for cleaning	L.S.	5.33	2.27	12.10	
9999	Extra for delays	L.S.	61.10	2.27	138.70	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1610.28	W
	Add 1 % Water charges on “W”				16.10	
	TOTAL				1626.38	X
	Add GST on “X” (multiplying factor 0.2127)				345.93	
	TOTAL				1972.31	Y
	Add 15% CPOH on “Y”				295.85	
	TOTAL				2268.16	Z
	Add Cess @ 1% on “Z”				22.68	
	Cost of 30.00 metre				2290.84	
	Cost of 1.00 metre				76.36	
	Say				76.35	

13.55.2 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x0.1572 m x30m =14.82sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.80	140.00	112.00	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Brushes, sand paper etc	L.S.	15.99	2.27	36.30	
9977	Carriage	L.S.	0.91	2.27	2.07	
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	1.41	120.00	169.20	
9977	Carriage	L.S.	2.08	2.27	4.72	
	LABOUR					
0131	Painter	day	0.80	816.00	652.80	
0115	Coolie	day	0.80	736.00	588.80	
9999	Putty, sand paper etc	L.S.	8.06	2.27	18.30	
9999	Sundries	L.S.	11.96	2.27	27.15	
9999	Wire brushes for cleaning	L.S.	7.15	2.27	16.23	
9999	Extra for delays	L.S.	94.12	2.27	213.65	
	TOTAL				2399.94	W
	Add 1 % Water charges on “W”				24.00	
	TOTAL				2423.94	X
	Add GST on “X” (multiplying factor 0.2127)				515.57	
	TOTAL				2939.51	Y
	Add 15% CPOH on “Y”				440.93	
	TOTAL				3380.44	Z
	Add Cess @ 1% on “Z”				33.80	
	Cost of 30.00 metre				3414.24	
	Cost of 1.00 metre				113.81	
	Say				113.80	

13.56 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.

13.56.1 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7x0.1064m x30m =10.032sqm					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
4202	Red oxide Zinc chromate primer	litre	0.54	140.00	75.60	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.24	816.00	195.84	
0115	Coolie	day	0.24	736.00	176.64	
9999	Sundries	L.S.	10.79	2.27	24.49	
	MATERIAL					
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	180.00	208.80	
9977	Carriage	L.S.	1.43	2.27	3.25	
9999	Putty, sand paper etc	L.S.	5.33	2.27	12.10	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Sundries	L.S.	6.76	2.27	15.35	
9999	Wire brushes for cleaning	L.S.	11.96	2.27	27.15	
9999	Extra for delays	L.S.	66.43	2.27	150.80	
	TOTAL				1729.28	W
	Add 1 % Water charges on “W”				17.29	
	TOTAL				1746.57	X
	Add GST on “X” (multiplying factor 0.2127)				371.50	
	TOTAL				2118.07	Y
	Add 15% CPOH on “Y”				317.71	
	TOTAL				2435.78	Z
	Add Cess @ 1% on “Z”				24.36	
	Cost of 30.00 metre				2460.14	
	Cost of 1.00 metre				82.00	
	Say				82.00	

13.56.2 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x157.2mm x30m =14.82sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.80	140.00	112.00	
9977	Carriage	L.S.	0.65	2.27	1.48	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Sundries	L.S.	15.99	2.27	36.30	
	MATERIAL					
0833	Synthetic enamel paint in black or chocolate shade	litre	1.72	180.00	309.60	
9977	Carriage	L.S.	2.08	2.27	4.72	
9999	Putty, sand paper etc	L.S.	7.93	2.27	18.00	
	LABOUR					
0131	Painter	day	0.80	816.00	652.80	
0115	Coolie	day	0.80	736.00	588.80	
9999	Sundries	L.S.	10.01	2.27	22.72	
9999	Wire brushes for cleaning	L.S.	17.81	2.27	40.43	
9999	Extra for delays	L.S.	101.40	2.27	230.18	
	TOTAL				2575.75	W
	Add 1 % Water charges on “W”				25.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2601.51	X
	Add GST on “X” (multiplying factor 0.2127)				553.34	
	TOTAL				3154.85	Y
	Add 15% CPOH on “Y”				473.23	
	TOTAL				3628.08	Z
	Add Cess @ 1% on “Z”				36.28	
	Cost of 30.00 metre				3664.36	
	Cost of 1.00 metre				122.15	
	Say				122.15	

13.57 Painting with oil type wood preservative of approved brand and manufacture :

13.57.1 New work (two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0859	Oil type wood preservative	litre	1.00	130.00	130.00	
9977	Carriage of material	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.15	816.00	122.40	
0115	Coolie	day	0.15	736.00	110.40	
9999	Brushes etc	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	3.90	2.27	8.85	
	TOTAL				382.27	W
	Add 1 % Water charges on “W”				3.82	
	TOTAL				386.09	X
	Add GST on “X” (multiplying factor 0.2127)				82.12	
	TOTAL				468.21	Y
	Add 15% CPOH on “Y”				70.23	
	TOTAL				538.44	Z
	Add Cess @ 1% on “Z”				5.38	
	Cost of 10.00 sqm				543.82	
	Cost of 1.00 sqm				54.38	
	Say				54.40	

13.58 Providing and applying two coats of fire retardant paint on cleaned wood / ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
7240	Fire retardant paint	litre	5.70	259.00	1476.30	
9977	Carriage of material	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0114	Beldar	day	0.54	736.00	397.44	
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				2351.28	W
	Add 1 % Water charges on “W”				23.51	
	TOTAL				2374.79	X
	Add GST on “X” (multiplying factor 0.2127)				505.12	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2879.91	Y
	Add 15% CPOH on "Y"				431.99	
	TOTAL				3311.90	Z
	Add Cess @ 1% on "Z"				33.12	
	Cost of 10.00 sqm				3345.02	
	Cost of 1.00 sqm				334.50	
	Say				334.50	

13.59 Coal tarring two coats on new work using 0.16 Litre and 0.12 litre coal tar per sqm in the first coat and second coat respectively.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
9999	Lime	L.S.	1.43	2.27	3.25	
0324	Coal Tar	litre	2.80	35.00	98.00	
9977	Carriage of material	L.S.	1.43	2.27	3.25	
0771	Kerosene oil	litre	0.50	50.00	25.00	
	LABOUR					
0114	Beldar	day	0.43	736.00	316.48	
9999	Brushes etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				470.18	W
	Add 1 % Water charges on "W"				4.70	
	TOTAL				474.88	X
	Add GST on "X" (multiplying factor 0.2127)				101.01	
	TOTAL				575.89	Y
	Add 15% CPOH on "Y"				86.38	
	TOTAL				662.27	Z
	Add Cess @ 1% on "Z"				6.62	
	Cost of 10.00 sqm				668.89	
	Cost of 1.00 sqm				66.89	
	Say				66.90	

13.61 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :

13.61.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	180.00	208.80	
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.27	12.10	
9977	Carriage	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1095.88	W
	Add 1 % Water charges on "W"				10.96	
	TOTAL				1106.84	X
	Add GST on "X" (multiplying factor 0.2127)				235.42	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1342.26	Y
	Add 15% CPOH on "Y"				201.34	
	TOTAL				1543.60	Z
	Add Cess @ 1% on "Z"				15.44	
	Cost of 10.00 sqm				1559.04	
	Cost of 1.00 sqm				155.90	
	Say				155.90	

13.62 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.62.1 Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	0.75	100.00	75.00	
9999	Putty	L.S.	2.73	2.27	6.20	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	10.79	2.27	24.49	
	MATERIAL					
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	180.00	208.80	
9977	Carriage of paint and material	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1590.46	W
	Add 1 % Water charges on "W"				15.90	
	TOTAL				1606.36	X
	Add GST on "X" (multiplying factor 0.2127)				341.67	
	TOTAL				1948.03	Y
	Add 15% CPOH on "Y"				292.20	
	TOTAL				2240.23	Z
	Add Cess @ 1% on "Z"				22.40	
	Cost of 10.00 sqm				2262.63	
	Cost of 1.00 sqm				226.26	
	Say				226.25	

13.63 Painting with aluminium paint of approved brand and manufacture to give an even shade .

13.63.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0826	Aluminium paint	litre	0.80	170.00	136.00	
9977	Carriage of paint and material	L.S.	1.43	2.27	3.25	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Putty etc	L.S.	5.33	2.27	12.10	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	11.96	2.27	27.15	
	TOTAL				1031.93	W
	Add 1 % Water charges on “W”				10.32	
	TOTAL				1042.25	X
	Add GST on “X” (multiplying factor 0.2127)				221.69	
	TOTAL				1263.94	Y
	Add 15% CPOH on “Y”				189.59	
	TOTAL				1453.53	Z
	Add Cess @ 1% on “Z”				14.54	
	Cost of 10.00 sqm				1468.07	
	Cost of 1.00 sqm				146.81	
	Say				146.80	

13.64 Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :

13.64.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0827	Acid proof paint (chocolate or black)	litre	1.16	225.00	261.00	
9977	Carriage of paint	L.S.	1.43	2.27	3.25	
9999	Putty etc	L.S.	5.33	2.27	12.10	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1148.08	W
	Add 1 % Water charges on “W”				11.48	
	TOTAL				1159.56	X
	Add GST on “X” (multiplying factor 0.2127)				246.64	
	TOTAL				1406.20	Y
	Add 15% CPOH on “Y”				210.93	
	TOTAL				1617.13	Z
	Add Cess @ 1% on “Z”				16.17	
	Cost of 10.00 sqm				1633.30	
	Cost of 1.00 sqm				163.33	
	Say				163.35	

13.65 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :

13.65.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.95	120.00	114.00	
9977	Carriage	L.S.	1.43	2.27	3.25	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				985.73	W
	Add 1 % Water charges on “W”				9.86	
	TOTAL				995.59	X
	Add GST on “X” (multiplying factor 0.2127)				211.76	
	TOTAL				1207.35	Y
	Add 15% CPOH on “Y”				181.10	
	TOTAL				1388.45	Z
	Add Cess @ 1% on “Z”				13.88	
	Cost of 10.00 sqm				1402.33	
	Cost of 1.00 sqm				140.23	
	Say				140.25	

13.67 Varnishing with varnish of approved brand and manufacture :

13.67.1 Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0856	Ordinary varnish	litre	0.70	110.00	77.00	
0763	Glue	kilogram	0.07	80.00	5.60	
0857	Superior copal varnish	litre	1.16	115.00	133.40	
9977	Carriage	L.S.	1.43	2.27	3.25	
9999	Putty for repair to holes etc	L.S.	5.33	2.27	12.10	
	LABOUR					
0131	Painter (0.36+0.54=0.90)	day	0.90	816.00	734.40	
0115	Coolie (0.36+0.54=0.90)	day	0.90	736.00	662.40	
9999	Brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				1659.73	W
	Add 1 % Water charges on “W”				16.60	
	TOTAL				1676.33	X
	Add GST on “X” (multiplying factor 0.2127)				356.56	
	TOTAL				2032.89	Y
	Add 15% CPOH on “Y”				304.93	
	TOTAL				2337.82	Z
	Add Cess @ 1% on “Z”				23.38	
	Cost of 10.00 sqm				2361.20	
	Cost of 1.00 sqm				236.12	
	Say				236.10	

13.67.2 Two or more coats glue sizing with spar varnish or an under coat of flatting varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0856	Ordinary varnish	litre	0.70	110.00	77.00	
0763	Glue	kilogram	0.07	80.00	5.60	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0858	Superior spar varnish	litre	1.26	115.00	144.90	
9977	Carriage	L.S.	1.43	2.27	3.25	
9999	Repair etc	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter (0.36+0.54=0.90)	day	0.90	816.00	734.40	
0115	Coolie (0.36+0.54=0.90)	day	0.90	736.00	662.40	
9999	Brushes, sand paper etc	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				1665.33	W
	Add 1 % Water charges on “W”				16.65	
	TOTAL				1681.98	X
	Add GST on “X” (multiplying factor 0.2127)				357.76	
	TOTAL				2039.74	Y
	Add 15% CPOH on “Y”				305.96	
	TOTAL				2345.70	Z
	Add Cess @ 1% on “Z”				23.46	
	Cost of 10.00 sqm				2369.16	
	Cost of 1.00 sqm				236.92	
	Say				236.90	

13.68 French spirit polishing :

13.68.1 Two or more coats on new works including a coat of wood filler

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
1000	Spirit	litre	1.63	60.00	97.80	
9999	Pigment	L.S.	7.15	2.27	16.23	
0999	Shellac	kilogram	0.24	300.00	72.00	
9977	Carriage of material	L.S.	2.73	2.27	6.20	
9999	White woolen cloth, putty	L.S.	16.12	2.27	36.59	
9999	Sand paper cotton etc	L.S.	13.39	2.27	30.40	
9999	Lineseed oil	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	3.50	816.00	2856.00	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3136.77	W
	Add 1 % Water charges on “W”				31.37	
	TOTAL				3168.14	X
	Add GST on “X” (multiplying factor 0.2127)				673.86	
	TOTAL				3842.00	Y
	Add 15% CPOH on “Y”				576.30	
	TOTAL				4418.30	Z
	Add Cess @ 1% on “Z”				44.18	
	Cost of 10.00 sqm				4462.48	
	Cost of 1.00 sqm				446.25	
	Say				446.25	

13.69 Polishing on wood work with ready mixed wax polish of approved brand and manufacture :

13.69.1 New work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0855	Wax polish (ready made)	kilogram	0.50	242.00	121.00	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.80	816.00	652.80	
0115	Coolie	day	0.80	736.00	588.80	
9999	Soap, brushes, cloth etc	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				1389.16	W
	Add 1 % Water charges on “W”				13.89	
	TOTAL				1403.05	X
	Add GST on “X” (multiplying factor 0.2127)				298.43	
	TOTAL				1701.48	Y
	Add 15% CPOH on “Y”				255.22	
	TOTAL				1956.70	Z
	Add Cess @ 1% on “Z”				19.57	
	Cost of 10.00 sqm				1976.27	
	Cost of 1.00 sqm				197.63	
	Say				197.65	

13.70 Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0855	Wax polish (ready made)	kilogram	0.10	242.00	24.20	
	LABOUR					
0131	Painter	day	0.40	816.00	326.40	
0115	Coolie	day	0.40	736.00	294.40	
9999	Acetic acid soap, cloth etc	L.S.	5.33	2.27	12.10	
9988	Sundries including Carriage	L.S.	8.06	2.27	18.30	
	TOTAL				675.40	W
	Add 1 % Water charges on “W”				6.75	
	TOTAL				682.15	X
	Add GST on “X” (multiplying factor 0.2127)				145.09	
	TOTAL				827.24	Y
	Add 15% CPOH on “Y”				124.09	
	TOTAL				951.33	Z
	Add Cess @ 1% on “Z”				9.51	
	Cost of 10.00 sqm				960.84	
	Cost of 1.00 sqm				96.08	
	Say				96.10	

13.71 Lettering with black Japan paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 letters of 15 cm height					
	MATERIAL					
0829	Black Japan paint	litre	0.56	110.00	61.60	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage	L.S.	0.91	2.27	2.07	
	LABOUR					
0131	Painter	day	6.00	816.00	4896.00	
0115	Coolie	day	2.00	736.00	1472.00	
9999	Painting brushes, turpentine, stencil etc	L.S.	13.39	2.27	30.40	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				6480.37	W
	Add 1 % Water charges on “W”				64.80	
	TOTAL				6545.17	X
	Add GST on “X” (multiplying factor 0.2127)				1392.16	
	TOTAL				7937.33	Y
	Add 15% CPOH on “Y”				1190.60	
	TOTAL				9127.93	Z
	Add Cess @ 1% on “Z”				91.28	
	Cost of 100 letters of 15 cm height				9219.21	
	Cost of 1 letters of 1 cm height				6.15	
	Say				6.15	

13.72 Washed stone grit plaster on exterior walls height upto 10 metre above ground level, in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand), furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 Kg of cement per square metre, top layer 15 mm cement plaster 1:1/ 2:2 (1 cement: 1/2 coarse sand : 2 stone chipping 10 mm nominal size), in panels with groove all around as per approved pattern, including scrubbing and washing the top layer with brushes and water to expose the stone chippings ,complete as per specification and direction of Engineer-in-charge (payment for providing grooves shall be made separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Under layer 12 mm cement plaster with Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4211.70	606.48	
	LABOUR					
0155	Mason (average)	day	0.67	857.00	574.19	
0114	Beldar	day	0.75	736.00	552.00	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding	L.S.	8.97	2.27	20.36	
	Applying cement slurry					
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement	tonne	0.02	0.00	0.00	
0114	Beldar	day	0.25	736.00	184.00	
	Top layer 15 mm thick stone chipping plaster Quantity required = 0.172 cum including wastage					
	Preparation of cement concrete mix 1:1/2:2 (1 cement : 1/2 coarse sand : 2 stone chipping 10 mm nominal size)					
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.14	1400.00	196.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.14	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.04	1450.00	58.00	
2203	Carriage of Coarse sand	cum	0.04	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5156.00	515.60	
2209	Carriage of Cement	tonne	0.10	0.00	0.00	
0114	Beldar	day	0.10	736.00	73.60	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Hire and running charges of mechanical mixer	L.S.	4.29	2.27	9.74	
9999	Sundries	L.S.	2.08	2.27	4.72	
	LABOUR					
0123	Mason 1st class	Day	1.75	897.00	1569.75	
0114	Beldar	Day	1.75	736.00	1288.00	
0101	Bhisti	Day	0.30	816.00	244.80	
9999	Scaffolding	L.S.	24.44	2.27	55.48	
	Labour for washing					
0123	Mason 1st class	Day	1.00	897.00	897.00	
0115	Coolie	Day	0.50	736.00	368.00	
9999	Sundries soft brushes etc	L.S.	25.22	2.27	57.25	
	TOTAL				8169.61	W
	Add 1 % Water charges on “W”				81.70	
	TOTAL				8251.31	X
	Add GST on “X” (multiplying factor 0.2127)				1755.05	
	TOTAL				10006.36	Y
	Add 15% CPOH on “Y”				1500.95	
	TOTAL				11507.31	Z
	Add Cess @ 1% on “Z”				115.07	
	Cost of 10.00 sqm				11622.38	
	Cost of 1.00 sqm				1162.24	
	Say				1162.25	

13.73 Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer, including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge :

13.73.1 15 mm wide and 15 mm deep groove

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 mtrs					
	Second class kail wood in plank 30 x0.015 x0.015m =6.75cudm					
	Wastage @ 10% = 0.68					
	Total = 7.43 cudm					
	Assuming that the battens shall become unserviceable after using 5 times					
	Cost for using once = 7.43 / 5 = 1.48 cudm					
	MATERIAL					
1198	Second class kail wood in planks	10 cudm	0.148	260.00	38.48	
9977	Carriage of wood	L.S.	0.39	2.27	0.89	
	Labour for making battens					
0112	Carpenter 2nd class	day	0.15	816.00	122.40	
0114	Beldar	day	0.15	736.00	110.40	
9999	Sundries	L.S.	2.86	2.27	6.49	
	Labour for nailing the battens to under layer and finishing and repairing grooves					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	0.70	897.00	627.90	
0114	Beldar	day	0.70	736.00	515.20	
9999	Nails and cement mortar	L.S.	71.76	2.27	162.90	
	TOTAL				1584.66	W
	Add 1 % Water charges on “W”				15.85	
	TOTAL				1600.51	X
	Add GST on “X” (multiplying factor 0.2127)				340.43	
	TOTAL				1940.94	Y
	Add 15% CPOH on “Y”				291.14	
	TOTAL				2232.08	Z
	Add Cess @ 1% on “Z”				22.32	
	Cost of 30.00 mtrs				2254.40	
	Cost of 1.00 metre				75.15	
	Say				75.15	

13.73.2 20 mm wide and 15 mm deep groove

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 mtrs					
	Second class kail wood in plank 30 x0.02 x0.015m =9.00 cudm					
	Wastage @ 10% = 0.90					
	Total = 9.90 cudm					
	Assuming that the battens shall become unserviceable after using 5 times					
	Cost for using once = 9.9 / 5 = 1.98 cudm					
	MATERIAL					
1198	Second class kail wood in planks	10 cudm	0.198	260.00	51.48	
9977	Carriage of wood	L.S.	0.52	2.27	1.18	
	Labour for making battens					
0112	Carpenter 2nd class	day	0.15	816.00	122.40	
0114	Beldar	day	0.15	736.00	110.40	
9999	Sundries	L.S.	2.86	2.27	6.49	
	Labour for nailing the battens to under layer and finishing and repairing grooves					
0123	Mason 1st class	day	0.70	897.00	627.90	
0114	Beldar	day	0.70	736.00	515.20	
9999	Nails and cement mortar	L.S.	71.76	2.27	162.90	
	TOTAL				1597.95	W
	Add 1 % Water charges on “W”				15.98	
	TOTAL				1613.93	X
	Add GST on “X” (multiplying factor 0.2127)				343.28	
	TOTAL				1957.21	Y
	Add 15% CPOH on “Y”				293.58	
	TOTAL				2250.79	Z
	Add Cess @ 1% on “Z”				22.51	
	Cost of 30.00 mtrs				2273.30	
	Cost of 1.00 metre				75.78	
	Say				75.80	

13.74 Extra for washed grit plaster on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
9999	Scaffolding	L.S.	215.28	2.27	488.69	
0123	Mason 1st class	day	0.30	897.00	269.10	
0114	Beldar	day	0.30	736.00	220.80	
0101	Bhisti	day	0.15	816.00	122.40	
9999	Sundries	L.S.	28.60	2.27	64.92	
	TOTAL				1165.91	W
	Add 1 % Water charges on “W”				11.66	
	TOTAL				1177.57	X
	Add GST on “X” (multiplying factor 0.2127)				250.47	
	TOTAL				1428.04	Y
	Add 15% CPOH on “Y”				214.21	
	TOTAL				1642.25	Z
	Add Cess @ 1% on “Z”				16.42	
	Cost of 10.00 sqm				1658.67	
	Cost of 1.00 sqm				165.87	
	Say				165.85	

13.75 Extra for washed stone grit plaster on circular work not exceeding 6 m in radius (in two coats).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	53.82	2.27	122.17	
	TOTAL				938.67	W
	Add 1 % Water charges on “W”				9.39	
	TOTAL				948.06	X
	Add GST on “X” (multiplying factor 0.2127)				201.65	
	TOTAL				1149.71	Y
	Add 15% CPOH on “Y”				172.46	
	TOTAL				1322.17	Z
	Add Cess @ 1% on “Z”				13.22	
	Cost of 10.00 sqm				1335.39	
	Cost of 1.00 sqm				133.54	
	Say				133.55	

13.76 Forming groove of uniform size from 12x12 mm and upto 25x15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre Aluminium channel section 15 x 15 x 2 mm (weight 0.221 kg/mtr) Qty = 30 + 5% wastage = 31.5 m @ 0.221 kg/m = 6.96 kg.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7306	Aluminium T or L sections	kilogram	6.96	198.00	1378.08	
9977	Carriage	L.S.	38.98	2.27	88.48	
	Labour for fixing					
0117	Assistant Fitter or 2nd class Fitter	day	0.46	816.00	375.36	
0114	Beldar	day	0.15	736.00	110.40	
9999	Sundries	L.S.	2.86	2.27	6.49	
9999	Nails and cement mortar	L.S.	71.76	2.27	162.90	
	TOTAL				2121.71	W
	Add 1 % Water charges on “W”				21.22	
	TOTAL				2142.93	X
	Add GST on “X” (multiplying factor 0.2127)				455.80	
	TOTAL				2598.73	Y
	Add 15% CPOH on “Y”				389.81	
	TOTAL				2988.54	Z
	Add Cess @ 1% on “Z”				29.89	
	Cost of 30.00 metre				3018.43	
	Cost of 1.00 metre				100.61	
	Say				100.60	

13.77 Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Add for					
0368	White Cement	tonne	0.10	10500.00	1050.00	
	Deduct for ordinary cement					
0367	Portland Cement (OPC-43 grade)	tonne	-0.10	5156.00	-515.60	
	TOTAL				534.40	W
	Add 1 % Water charges on “W”				5.34	
	TOTAL				539.74	X
	Add GST on “X” (multiplying factor 0.2127)				114.80	
	TOTAL				654.54	Y
	Add 15% CPOH on “Y”				98.18	
	TOTAL				752.72	Z
	Add Cess @ 1% on “Z”				7.53	
	Cost of 10.00 sqm				760.25	
	Cost of 1.00 sqm				76.03	
	Say				76.05	

13.78 Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Premixed super white gypsum plaster @ 16.14kg /sqm = 61.40 + 5% wastage = 161.40+8.07= 169.47 kg					
0868	Premixed super white gypsum plaster.	kg	169.47	8.00	1355.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0155	Mason (average)	day	1.20	857.00	1028.40	
0115	Coolie	day	1.20	736.00	883.20	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				3295.98	W
	Add 1 % Water charges on “W”				32.96	
	TOTAL				3328.94	X
	Add GST on “X” (multiplying factor 0.2127)				708.07	
	TOTAL				4037.01	Y
	Add 15% CPOH on “Y”				605.55	
	TOTAL				4642.56	Z
	Add Cess @ 1% on “Z”				46.43	
	Cost of 10.00 sqm				4688.99	
	Cost of 1.00 sqm				468.90	
	Say				468.90	

13.79 Extra for addition of synthetic Polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement plaster/mortar by using 125 gms. of synthetic Polyester triangular fibre for 50 Kgs. cement used in cement mortar as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for per bag of 50 kg of cement used in mortar					
	MATERIAL					
8733	Synthetic ployster triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 including labour for mixing	kg	0.125	440.50	55.06	
	TOTAL				55.06	W
	Add 1 % Water charges on “W”				0.55	
	TOTAL				55.61	X
	Add GST on “X” (multiplying factor 0.2127)				11.83	
	TOTAL				67.44	Y
	Add 15% CPOH on “Y”				10.12	
	TOTAL				77.56	Z
	Add Cess @ 1% on “Z”				0.78	
	Cost per bag of cement				78.34	
	Say				78.35	

13.80 Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0824	Cement base wall care putty 10x0.001x1429 = 14.29kg Add 2% wastage= 0.29kg Total = 14.58kg Say 14.58 kg	kg	14.58	18.00	262.44	
9977	Carriage	L.S.	3.90	2.27	8.85	
	LABOUR					
0122	Mason (for plaster of paris work) 1st class	day	0.45	897.00	403.65	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.45	736.00	331.20	
9999	Scaffolding and sundries	L.S.	40.00	2.27	90.80	
	TOTAL				1096.94	W
	Add 1 % Water charges on “W”				10.97	
	TOTAL				1107.91	X
	Add GST on “X” (multiplying factor 0.2127)				235.65	
	TOTAL				1343.56	Y
	Add 15% CPOH on “Y”				201.53	
	TOTAL				1545.09	Z
	Add Cess @ 1% on “Z”				15.45	
	Cost of 10.00 sqm				1560.54	
	Cost of 1.00 sqm				156.05	
	Say				156.05	

13.81 Distempering with 1st quality acrylic distemper (ready mixed) having VOC (Volatile Organic Compound) content less than 50 gram/ litre, of approved brand and manufacturer including applying additional coats wherever required to achieve even shade and colour

13.81.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0802	Acrylic distemper 1st quality , having VOC content less than 50 gm/kg	Kg	0.62	45.00	27.90	
9988	Sundries for brushes,sand paper,scaffolding including Carriage for distemper	L.S.	8.06	2.27	18.30	
	LABOUR					
0131	Painter	day	0.33	816.00	269.28	
0115	Coolie	day	0.17	736.00	125.12	
	TOTAL				440.60	W
	Add 1 % Water charges on “W”				4.41	
	TOTAL				445.01	X
	Add GST on “X” (multiplying factor 0.2127)				94.65	
	TOTAL				539.66	Y
	Add 15% CPOH on “Y”				80.95	
	TOTAL				620.61	Z
	Add Cess @ 1% on “Z”				6.21	
	Cost of 10.00 sqm				626.82	
	Cost of 1.00 sqm				62.68	
	Say				62.70	

13.82 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.

13.82.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0803	Acrylic emulsion , having VOC content less than 50 gm/ltr	litre	0.53	105.00	55.65	
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.27	12.10	
9977	Carriage of material	L.S.	0.91	2.27	2.07	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	8.06	2.27	18.30	
	TOTAL				646.84	W
	Add 1 % Water charges on “W”				6.47	
	TOTAL				653.31	X
	Add GST on “X” (multiplying factor 0.2127)				138.96	
	TOTAL				792.27	Y
	Add 15% CPOH on “Y”				118.84	
	TOTAL				911.11	Z
	Add Cess @ 1% on “Z”				9.11	
	Cost of 10.00 sqm				920.22	
	Cost of 1.00 sqm				92.02	
	Say				92.00	

13.82.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0803	Acrylic emulsion , having VOC content less than 50 gm/ltr	litre	0.84	105.00	88.20	
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.27	12.10	
9977	Carriage of material	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	10.79	2.27	24.49	
	TOTAL				966.12	W
	Add 1 % Water charges on “W”				9.66	
	TOTAL				975.78	X
	Add GST on “X” (multiplying factor 0.2127)				207.55	
	TOTAL				1183.33	Y
	Add 15% CPOH on “Y”				177.50	
	TOTAL				1360.83	Z
	Add Cess @ 1% on “Z”				13.61	
	Cost of 10.00 sqm				1374.44	
	Cost of 1.00 sqm				137.44	
	Say				137.45	

13.83 Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.

13.83.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.38	210.00	79.80	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.27	12.10	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	8.06	2.27	18.30	
	TOTAL				670.99	W
	Add 1 % Water charges on “W”				6.71	
	TOTAL				677.70	X
	Add GST on “X” (multiplying factor 0.2127)				144.15	
	TOTAL				821.85	Y
	Add 15% CPOH on “Y”				123.28	
	TOTAL				945.13	Z
	Add Cess @ 1% on “Z”				9.45	
	Cost of 10.00 sqm				954.58	
	Cost of 1.00 sqm				95.46	
	Say				95.45	

13.83.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.60	210.00	126.00	
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.27	12.10	
9977	Carriage of material	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0115	Coolie	day	0.54	736.00	397.44	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	10.79	2.27	24.49	
	TOTAL				1003.92	W
	Add 1 % Water charges on “W”				10.04	
	TOTAL				1013.96	X
	Add GST on “X” (multiplying factor 0.2127)				215.67	
	TOTAL				1229.63	Y
	Add 15% CPOH on “Y”				184.44	
	TOTAL				1414.07	Z
	Add Cess @ 1% on “Z”				14.14	
	Cost of 10.00 sqm				1428.21	
	Cost of 1.00 sqm				142.82	
	Say				142.80	

13.85 Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.

13.85.1 With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 gms/lit.	litre	0.75	100.00	75.00	
9999	Putty	L.S.	2.73	2.27	6.20	
9977	Carriage of material	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Sundries for Brushes, sand paper etc	L.S.	10.79	2.27	24.49	
	TOTAL				494.58	W
	Add 1 % Water charges on “W”				4.95	
	TOTAL				499.53	X
	Add GST on “X” (multiplying factor 0.2127)				106.25	
	TOTAL				605.78	Y
	Add 15% CPOH on “Y”				90.87	
	TOTAL				696.65	Z
	Add Cess @ 1% on “Z”				6.97	
	Cost of 10.00 sqm				703.62	
	Cost of 1.00 sqm				70.36	
	Say				70.35	

13.85.3 With water thinnable cement primer on wall surface having VOC content less than 50 grams/ litre

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	40.00	28.00	
9988	Sundries for brushes,sand paper & putty for filling holes including Carriage for primer	L.S.	8.06	2.27	18.30	
	LABOUR					
0131	Painter	day	0.40	816.00	326.40	
0115	Coolie	day	0.20	736.00	147.20	
	TOTAL				519.90	W
	Add 1 % Water charges on “W”				5.20	
	TOTAL				525.10	X
	Add GST on “X” (multiplying factor 0.2127)				111.69	
	TOTAL				636.79	Y
	Add 15% CPOH on “Y”				95.52	
	TOTAL				732.31	Z
	Add Cess @ 1% on “Z”				7.32	
	Cost of 10.00 sqm				739.63	
	Cost of 1.00 sqm				73.96	
	Say				73.95	

13.86 6 mm plaster on cement concrete or reinforced cement concrete work with white cement based polymer modified self curing mortar of approved make as per the direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0772	White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	46.00	18.00	828.00	
9977	Carriage of white cement based polymer modified self curing compound in powder form	L.S.	7.80	2.27	17.71	
	LABOUR					
0155	Mason (average)	day	0.51	857.00	437.07	
0115	Coolie	day	0.75	736.00	552.00	
9999	Extra for removing burrs, cleaning with wire brushes and pock making with pointed tools etc.	L.S.	13.39	2.27	30.40	
9999	Scaffolding and sunderies	L.S.	11.70	2.27	26.56	
	TOTAL				1891.74	W
	Add 1 % Water charges on “W”				18.92	
	TOTAL				1910.66	X
	Add GST on “X” (multiplying factor 0.2127)				406.40	
	TOTAL				2317.06	Y
	Add 15% CPOH on “Y”				347.56	
	TOTAL				2664.62	Z
	Add Cess @ 1% on “Z”				26.65	
	Cost of 10 sqm				2691.27	
	Cost of 1 sqm				269.13	
	Say				269.15	

13.87 White washing with lime to give an even shade :

13.87.1 Old work (two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0775	Dehradun white lime	quintal	0.02	650.00	13.00	
9977	Carriage of lime	L.S.	0.52	2.27	1.18	
	LABOUR					
0141	White Washer	day	0.11	816.00	89.76	
0115	Coolie	day	0.06	736.00	44.16	
9999	Indigo gum etc	L.S.	2.73	2.27	6.20	
9999	Sundries ladders etc	L.S.	2.73	2.27	6.20	
	TOTAL				160.50	W
	Add 1 % Water charges on “W”				1.61	
	TOTAL				162.11	X
	Add GST on “X” (multiplying factor 0.2127)				34.48	
	TOTAL				196.59	Y
	Add 15% CPOH on “Y”				29.49	
	TOTAL				226.08	Z
	Add Cess @ 1% on “Z”				2.26	
	Cost of 10.00 sqm				228.34	
	Cost of 1.00 sqm				22.83	
	Say				22.85	

13.87.2 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0775	Dehradun white lime	quintal	0.01	650.00	6.50	
9977	Carriage of lime	L.S.	0.52	2.27	1.18	
	LABOUR					
0141	White Washer	day	0.07	816.00	57.12	
0115	Coolie	day	0.03	736.00	22.08	
9999	Indigo gum etc	L.S.	2.08	2.27	4.72	
9999	Sundries ladders etc	L.S.	2.73	2.27	6.20	
	TOTAL				97.80	W
	Add 1 % Water charges on “W”				0.98	
	TOTAL				98.78	X
	Add GST on “X” (multiplying factor 0.2127)				21.01	
	TOTAL				119.79	Y
	Add 15% CPOH on “Y”				17.97	
	TOTAL				137.76	Z
	Add Cess @ 1% on “Z”				1.38	
	Cost of 10.00 sqm				139.14	
	Cost of 1.00 sqm				13.91	
	Say				13.90	

13.88 Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	LABOUR					
0114	Beldar	day	0.09	736.00	66.24	
0115	Coolie	day	0.04	736.00	29.44	
0101	Bhisti	day	0.04	816.00	32.64	
9999	Sundries such as sand paper and scrapper	L.S.	2.73	2.27	6.20	
9999	Repair to scraches	L.S.	1.82	2.27	4.13	
	TOTAL				138.65	W
	Add 1 % Water charges on “W”				1.39	
	TOTAL				140.04	X
	Add GST on “X” (multiplying factor 0.2127)				29.79	
	TOTAL				169.83	Y
	Add 15% CPOH on “Y”				25.47	
	TOTAL				195.30	Z
	Add Cess @ 1% on “Z”				1.95	
	Cost of 10 sqm.				197.25	
	Cost of 1 sqm.				19.73	
	Say				19.75	

13.91 Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	LABOUR					
0114	Beldar	day	0.11	736.00	80.96	
0115	Coolie	day	0.05	736.00	36.80	
0101	Bhisti	day	0.05	816.00	40.80	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Scrapper, sand paper etc.	L.S.	6.24	2.27	14.16	
9999	Sundries including mortar to repair the surface	L.S.	1.82	2.27	4.13	
	TOTAL				176.85	W
	Add 1 % Water charges on “W”				1.77	
	TOTAL				178.62	X
	Add GST on “X” (multiplying factor 0.2127)				37.99	
	TOTAL				216.61	Y
	Add 15% CPOH on “Y”				32.49	
	TOTAL				249.10	Z
	Add Cess @ 1% on “Z”				2.49	
	Cost of 10 sqm.				251.59	
	Cost of 1 sqm.				25.16	
	Say				25.15	

13.92 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.92.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
0845	Roofing paint for iron sheets in red colour	litre	0.46	135.00	62.10	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Putty, brushes sand paper etc.	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				655.65	W
	Add 1 % Water charges on “W”				6.56	
	TOTAL				662.21	X
	Add GST on “X” (multiplying factor 0.2127)				140.85	
	TOTAL				803.06	Y
	Add 15% CPOH on “Y”				120.46	
	TOTAL				923.52	Z
	Add Cess @ 1% on “Z”				9.24	
	Cost of 10 sqm.				932.76	
	Cost of 1 sqm.				93.28	
	Say				93.30	

13.93 Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :

13.93.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x0.0814m x30m =7.67 sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.41	140.00	57.40	
9977	Carraige	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.18	816.00	146.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	0.18	736.00	132.48	
9999	Brushes, sand paper etc	L.S.	8.19	2.27	18.59	
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.73	120.00	87.60	
9977	Carraige	L.S.	1.04	2.27	2.36	
	LABOUR					
0131	Painter	day	0.41	816.00	334.56	
0115	Coolie	day	0.41	736.00	301.76	
9999	Putty, sand paper etc	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	6.24	2.27	14.16	
9999	Wire brushes for cleaning	L.S.	4.42	2.27	10.03	
9999	Extra for delays	L.S.	40.3	2.27	91.48	
	TOTAL				1207.63	W
	Add 1 % Water charges on “W”				12.08	
	TOTAL				1219.71	X
	Add GST on “X” (multiplying factor 0.2127)				259.43	
	TOTAL				1479.14	Y
	Add 15% CPOH on “Y”				221.87	
	TOTAL				1701.01	Z
	Add Cess @ 1% on “Z”				17.01	
	Cost of 30.00 metre				1718.02	
	Cost of 1.00 metre				57.27	
	Say				57.25	

13.94 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :

13.94.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x0.0814m x30m =7.67 sqm					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.43	120.00	51.60	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.27	816.00	220.32	
0115	Coolie	day	0.27	736.00	198.72	
9999	Putty, sand paper etc	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	6.24	2.27	14.16	
9999	Wire brushes for cleaning	L.S.	4.42	2.27	10.03	
9999	Extra for delays	L.S.	26.91	2.27	61.09	
	TOTAL				566.25	W
	Add 1 % Water charges on “W”				5.66	
	TOTAL				571.91	X
	Add GST on “X” (multiplying factor 0.2127)				121.65	
	TOTAL				693.56	Y
	Add 15% CPOH on “Y”				104.03	
	TOTAL				797.59	Z
	Add Cess @ 1% on “Z”				7.98	
	Cost of 30.00 metre				805.57	
	Cost of 1.00 metre				26.85	
	Say				26.85	

13.94.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	Area = 22/7x106.4 mmx30 m = 10.032 sqm					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.57	120.00	68.40	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
9999	Wire brushes for cleaning	L.S.	5.33	2.27	12.10	
9999	Extra for delay	L.S.	34.06	2.27	77.32	
	TOTAL				748.12	W
	Add 1 % Water charges on “W”				7.48	
	TOTAL				755.60	X
	Add GST on “X” (multiplying factor 0.2127)				160.72	
	TOTAL				916.32	Y
	Add 15% CPOH on “Y”				137.45	
	TOTAL				1053.77	Z
	Add Cess @ 1% on “Z”				10.54	
	Cost of 30.00 metre				1064.31	
	Cost of 1.00 metre				35.48	
	Say				35.50	

13.94.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	Area = 22/7x157.2 mmx30 m = 14.82 sqm					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.85	120.00	102.00	
9977	Carriage	L.S.	0.65	2.27	1.48	
	LABOUR					
0131	Painter	day	0.53	816.00	432.48	
0115	Coolie	day	0.53	736.00	390.08	
9999	Putty, sand paper brushes etc.	L.S.	8.06	2.27	18.30	
9999	Sundries	L.S.	11.96	2.27	27.15	
9999	Wire brushes for cleaning	L.S.	7.14	2.27	16.21	
9999	Extra for delay	L.S.	40.30	2.27	91.48	
	TOTAL				1079.18	W
	Add 1 % Water charges on “W”				10.79	
	TOTAL				1089.97	X
	Add GST on “X” (multiplying factor 0.2127)				231.84	
	TOTAL				1321.81	Y
	Add 15% CPOH on “Y”				198.27	
	TOTAL				1520.08	Z
	Add Cess @ 1% on “Z”				15.20	
	Cost of 30.00 metre				1535.28	
	Cost of 1.00 metre				51.18	
	Say				51.20	

13.95 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with aluminium paint of approved brand and manufacture over a priming coat of ready mixed zinc chromate yellow primer on new work :

13.95.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x0.0814m x30m =7.67 sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.41	140.00	57.40	
9977	Carriage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.18	816.00	146.88	
0115	Coolie	day	0.18	736.00	132.48	
9999	Sundries	L.S.	8.19	2.27	18.59	
	MATERIAL					
0826	Aluminium paint	litre	0.61	170.00	103.70	
9977	Carriage	L.S.	1.04	2.27	2.36	
9999	Putty, sand paper etc	L.S.	4.16	2.27	9.44	
	LABOUR					
0131	Painter	day	0.41	816.00	334.56	
0115	Coolie	day	0.41	736.00	301.76	
9999	Sundries	L.S.	5.20	2.27	11.80	
9999	Wire brushes for cleaning	L.S.	9.10	2.27	20.66	
9999	Extra for delays	L.S.	44.85	2.27	101.81	
	TOTAL				1242.33	W
	Add 1 % Water charges on “W”				12.42	
	TOTAL				1254.75	X
	Add GST on “X” (multiplying factor 0.2127)				266.89	
	TOTAL				1521.64	Y
	Add 15% CPOH on “Y”				228.25	
	TOTAL				1749.89	Z
	Add Cess @ 1% on “Z”				17.50	
	Cost of 30.00 metre				1767.39	
	Cost of 1.00 metre				58.91	
	Say				58.90	

13.95.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x106.4x30m =10.032sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.54	140.00	75.60	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.24	816.00	195.84	
	0.18 x 10.032 / 7.67 = 0.24					
0115	Coolie	day	0.24	736.00	176.64	
9999	Sundries	L.S.	10.79	2.27	24.49	
	MATERIAL					
0826	Aluminium paint	litre	1.16	170.00	197.20	
	0.61 x 10.032 / 7.67 = 0.80					
9977	Carriage	L.S.	1.43	2.27	3.25	
9999	Putty, sand paper etc	L.S.	5.33	2.27	12.10	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0131	Painter	day	0.54	816.00	440.64	
	0.41 x 10.032 / 7.67 = 0.54					
0115	Coolie	day	0.54	736.00	397.44	
9999	Sundries	L.S.	6.76	2.27	15.35	
9999	Wire brushes for cleaning	L.S.	11.96	2.27	27.15	
9999	Extra for delays	L.S.	66.43	2.27	150.80	
	TOTAL				1717.68	W
	Add 1 % Water charges on “W”				17.18	
	TOTAL				1734.86	X
	Add GST on “X” (multiplying factor 0.2127)				369.00	
	TOTAL				2103.86	Y
	Add 15% CPOH on “Y”				315.58	
	TOTAL				2419.44	Z
	Add Cess @ 1% on “Z”				24.19	
	Cost of 30.00 metre				2443.63	
	Cost of 1.00 metre				81.45	
	Say				81.45	

13.95.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	Area=22/7 x157.12x30m =14.82 sqm					
	MATERIAL					
4202	Red oxide Zinc chromate primer	litre	0.80	140.00	112.00	
9977	Carriage	L.S.	0.65	2.27	1.48	
	LABOUR					
0131	Painter	Day	0.36	816.00	293.76	
	0.18 x 14.82 / 7.67 = 0.36					
0115	Coolie	Day	0.36	736.00	264.96	
9999	Sundries	L.S.	15.99	2.27	36.30	
	MATERIAL					
0826	Aluminium paint	litre	1.72	170.00	292.40	
	0.61 x 14.82 / 7.67 = 1.72					
9977	Carriage	L.S.	2.08	2.27	4.72	
9999	Putty, sand paper etc	L.S.	7.93	2.27	18.00	
	LABOUR					
0131	Painter	day	0.80	816.00	652.80	
	0.41 x 14.82 / 7.67 = 0.80					
0115	Coolie	day	0.80	736.00	588.80	
9999	Sundries	L.S.	10.01	2.27	22.72	
9999	Wire brushes for cleaning	L.S.	17.81	2.27	40.43	
9999	Extra for delays	L.S.	101.4	2.27	230.18	
	TOTAL				2558.55	W
	Add 1 % Water charges on “W”				25.59	
	TOTAL				2584.14	X
	Add GST on “X” (multiplying factor 0.2127)				549.65	
	TOTAL				3133.79	Y
	Add 15% CPOH on “Y”				470.07	
	TOTAL				3603.86	Z
	Add Cess @ 1% on “Z”				36.04	
	Cost of 30.00 metre				3639.90	
	Cost of 1.00 metre				121.33	
	Say				121.35	

13.96 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :

13.96.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	Area = 22/7x0.0814 mmx30 m = 7.67 sqm					
	MATERIAL					
0826	Aluminium paint	litre	0.35	170.00	59.50	
9999	Putty, sand paper etc.	L.S.	0.39	2.27	0.89	
9977	Carriage	L.S.	2.08	2.27	4.72	
	LABOUR					
0131	Painter	day	0.28	816.00	228.48	
0115	Coolie	day	0.28	736.00	206.08	
9999	Putty, sand paper brushes etc.	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	6.24	2.27	14.16	
9999	Wire brushes for cleaning	L.S.	4.42	2.27	10.03	
9999	Extra for delay	L.S.	26.91	2.27	61.09	
	TOTAL				594.39	W
	Add 1 % Water charges on “W”				5.94	
	TOTAL				600.33	X
	Add GST on “X” (multiplying factor 0.2127)				127.69	
	TOTAL				728.02	Y
	Add 15% CPOH on “Y”				109.20	
	TOTAL				837.22	Z
	Add Cess @ 1% on “Z”				8.37	
	Cost of 30.00 metre				845.59	
	Cost of 1.00 metre				28.19	
	Say				28.20	

13.96.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	Area = 22/7x106.4 mmx30 m = 10.032 sqm					
	MATERIAL					
0826	Aluminium paint	litre	0.46	170.00	78.20	
9999	Putty, sand paper etc.	L.S.	0.52	2.27	1.18	
9977	Carriage	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
9999	Wire brushes for cleaning	L.S.	5.33	2.27	12.10	
9999	Extra for delay	L.S.	34.06	2.27	77.32	
	TOTAL				764.12	W
	Add 1 % Water charges on “W”				7.64	
	TOTAL				771.76	X
	Add GST on “X” (multiplying factor 0.2127)				164.15	
	TOTAL				935.91	Y
	Add 15% CPOH on “Y”				140.39	
	TOTAL				1076.30	Z
	Add Cess @ 1% on “Z”				10.76	
	Cost of 30.00 metre				1087.06	
	Cost of 1.00 metre				36.24	
	Say				36.25	

13.96.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	Area = 22/7x157.2 mmx30 m = 14.82 sqm					
	MATERIAL					
0826	Aluminium paint	litre	0.68	170.00	115.60	
9999	Putty, sand paper etc.	L.S.	0.65	2.27	1.48	
9977	Carriage	L.S.	3.90	2.27	8.85	
	LABOUR					
0131	Painter	day	0.53	816.00	432.48	
0115	Coolie	day	0.53	736.00	390.08	
9999	Putty, sand paper brushes etc.	L.S.	7.93	2.27	18.00	
9999	Sundries	L.S.	11.96	2.27	27.15	
9999	Wire brushes for cleaning	L.S.	7.15	2.27	16.23	
9999	Extra for delay	L.S.	40.30	2.27	91.48	
	TOTAL				1101.35	W
	Add 1 % Water charges on “W”				11.01	
	TOTAL				1112.36	X
	Add GST on “X” (multiplying factor 0.2127)				236.60	
	TOTAL				1348.96	Y
	Add 15% CPOH on “Y”				202.34	
	TOTAL				1551.30	Z
	Add Cess @ 1% on “Z”				15.51	
	Cost of 30.00 metre				1566.81	
	Cost of 1.00 metre				52.23	
	Say				52.25	

13.97 Painting with oil type wood preservative of approved brand and manufacture:

13.97.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0859	Oil type wood preservative	litre	0.81	130.00	105.30	
9977	Carriage of material	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.11	816.00	89.76	
0115	Coolie	day	0.11	736.00	80.96	
9999	Brushes etc	L.S.	2.73	2.27	6.20	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				289.60	W
	Add 1 % Water charges on “W”				2.90	
	TOTAL				292.50	X
	Add GST on “X” (multiplying factor 0.2127)				62.21	
	TOTAL				354.71	Y
	Add 15% CPOH on “Y”				53.21	
	TOTAL				407.92	Z
	Add Cess @ 1% on “Z”				4.08	
	Cost of 10.00 sqm				412.00	
	Cost of 1.00 sqm				41.20	
	Say				41.20	

13.99 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.99.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0833	Synthetic enamel paint in black or chocolate shade	litre	0.70	180.00	126.00	
9977	Carriage of paint and materials	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Putty	L.S.	2.73	2.27	6.20	
9999	Brushes sand paper etc.	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				722.50	W
	Add 1 % Water charges on “W”				7.23	
	TOTAL				729.73	X
	Add GST on “X” (multiplying factor 0.2127)				155.21	
	TOTAL				884.94	Y
	Add 15% CPOH on “Y”				132.74	
	TOTAL				1017.68	Z
	Add Cess @ 1% on “Z”				10.18	
	Cost of 10.00 sqm				1027.86	
	Cost of 1.00 sqm				102.79	
	Say				102.80	

13.100 Painting with aluminium paint of approved brand and manufacture to give an even shade:

13.100.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0826	Aluminium paint	litre	0.46	170.00	78.20	
9977	Carriage of paint and material	L.S.	0.52	2.27	1.18	
9999	Putty etc	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				674.70	W
	Add 1 % Water charges on “W”				6.75	
	TOTAL				681.45	X
	Add GST on “X” (multiplying factor 0.2127)				144.94	
	TOTAL				826.39	Y
	Add 15% CPOH on “Y”				123.96	
	TOTAL				950.35	Z
	Add Cess @ 1% on “Z”				9.50	
	Cost of 10.00 sqm				959.85	
	Cost of 1.00 sqm				95.99	
	Say				96.00	

13.101 Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :

13.101.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0827	Acid proof paint (chocolate or black)	litre	0.70	225.00	157.50	
9977	Carriage of paint	L.S.	0.52	2.27	1.18	
9999	Putty etc	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				754.00	W
	Add 1 % Water charges on “W”				7.54	
	TOTAL				761.54	X
	Add GST on “X” (multiplying factor 0.2127)				161.98	
	TOTAL				923.52	Y
	Add 15% CPOH on “Y”				138.53	
	TOTAL				1062.05	Z
	Add Cess @ 1% on “Z”				10.62	
	Cost of 10.00 sqm				1072.67	
	Cost of 1.00 sqm				107.27	
	Say				107.25	

13.102 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :

13.102.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.57	120.00	68.40	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				658.70	W
	Add 1 % Water charges on “W”				6.59	
	TOTAL				665.29	X
	Add GST on “X” (multiplying factor 0.2127)				141.51	
	TOTAL				806.80	Y
	Add 15% CPOH on “Y”				121.02	
	TOTAL				927.82	Z
	Add Cess @ 1% on “Z”				9.28	
	Cost of 10.00 sqm				937.10	
	Cost of 1.00 sqm				93.71	
	Say				93.70	

13.103 French spirit polishing :

13.103.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
1000	Spirit	litre	0.98	60.00	58.80	
0999	Shellac	kilogram	0.13	300.00	39.00	
9977	Carriage of materials	L.S.	0.91	2.27	2.07	
9999	Turpentine oil sand paper cotton/woolen cloth putty etc.	L.S.	10.79	2.27	24.49	
9999	Linseed oil	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	1.76	816.00	1436.16	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1580.00	W
	Add 1 % Water 9charges on “W”				15.80	
	TOTAL				1595.80	X
	Add GST on “X” (multiplying factor 0.2127)				339.43	
	TOTAL				1935.23	Y
	Add 15% CPOH on “Y”				290.28	
	TOTAL				2225.51	Z
	Add Cess @ 1% on “Z”				22.26	
	Cost of 10.00 sqm				2247.77	
	Cost of 1.00 sqm				224.78	
	Say				224.80	

13.104 Polishing on wood work with ready made wax polish of approved brand and manufacture

13.104.1 Old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0855	Wax polish (ready made)	kilogram	0.25	242.00	60.50	
9977	Caariage	L.S.	0.39	2.27	0.89	
	LABOUR					
0131	Painter	day	0.40	816.00	326.40	
0115	Coolie	day	0.40	736.00	294.40	
9999	Soap, brushes, cloth etc	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	4.42	2.27	10.03	
	TOTAL				701.66	W
	Add 1 % Water charges on “W”				7.02	
	TOTAL				708.68	X
	Add GST on “X” (multiplying factor 0.2127)				150.74	
	TOTAL				859.42	Y
	Add 15% CPOH on “Y”				128.91	
	TOTAL				988.33	Z
	Add Cess @ 1% on “Z”				9.88	
	Cost of 10.00 sqm				998.21	
	Cost of 1.00 sqm				99.82	
	Say				99.80	

13.105 Re-lettering with black Japan paint of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 letters of 15 cm height					
	MATERIAL					
0829	Black Japan paint	litre	0.37	110.00	40.70	
9977	Carriage	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	4.00	816.00	3264.00	
0115	Coolie	day	1.00	736.00	736.00	
9999	Painting brushes, turpentine, stencil etc	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				4076.41	W
	Add 1 % Water charges on “W”				40.76	
	TOTAL				4117.17	X
	Add GST on “X” (multiplying factor 0.2127)				875.72	
	TOTAL				4992.89	Y
	Add 15% CPOH on “Y”				748.93	
	TOTAL				5741.82	Z
	Add Cess @ 1% on “Z”				57.42	
	Cost of 100 letters of 15 cm height				5799.24	
	Cost per letter per cm height				3.87	
	Say				3.85	

13.106 Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0829	Black Japan paint	litre	0.70	110.00	77.00	
9977	Carriage	L.S.	0.52	2.27	1.18	
9999	Putty etc.	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Brushes, sand paper etc.	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				673.50	W
	Add 1 % Water charges on “W”				6.74	
	TOTAL				680.24	X
	Add GST on “X” (multiplying factor 0.2127)				144.69	
	TOTAL				824.93	Y
	Add 15% CPOH on “Y”				123.74	
	TOTAL				948.67	Z
	Add Cess @ 1% on “Z”				9.49	
	Cost of 10.00 sqm				958.16	
	Cost of 1sqm				95.82	
	Say				95.80	

13.107 Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:

13.107.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 no.					
	MATERIAL					
1314	C.P.brass chain with 32 mm dia rubber plug	each	1.00	38.00	38.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				56.30	W
	Add 1 % Water charges on “W”				0.56	
	TOTAL				56.86	X
	Add GST on “X” (multiplying factor 0.2127)				12.09	
	TOTAL				68.95	Y
	Add 15% CPOH on “Y”				10.34	
	TOTAL				79.29	Z
	Add Cess @ 1% on “Z”				0.79	
	Cost of each				80.08	
	Say				80.10	

13.107.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 no.					
	MATERIAL					
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	37.00	37.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				55.30	W
	Add 1 % Water charges on “W”				0.55	
	TOTAL				55.85	X
	Add GST on “X” (multiplying factor 0.2127)				11.88	
	TOTAL				67.73	Y
	Add 15% CPOH on “Y”				10.16	
	TOTAL				77.89	Z
	Add Cess @ 1% on “Z”				0.78	
	Cost of each				78.67	
	Say				78.65	

13.109 Finishing walls with water proofing cement paint of required shade :

13.109.1 Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litrs/10 sqm complete including cost of Priming coat.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0851	Water proofing cement paint	kilogram	2.20	41.00	90.20	
8508	Primer for cement paint	litre	0.80	100.00	80.00	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.46	816.00	375.36	
0115	Coolie	day	0.23	736.00	169.28	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Brushes, sand paper etc	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				793.71	W
	Add 1 % Water charges on “W”				7.94	
	TOTAL				801.65	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				170.51	
	TOTAL				972.16	Y
	Add 15% CPOH on “Y”				145.82	
	TOTAL				1117.98	Z
	Add Cess @ 1% on “Z”				11.18	
	Cost of 10.00 sqm				1129.16	
	Cost of 1.00 sqm				112.92	
	Say				112.90	

13.109.2 Old work (one or more coats @ 2.20 kg/10 sqm) complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0851	Water proofing cement paint	kilogram	2.20	41.00	90.20	
9977	Carriage of material	L.S.	1.10	2.27	2.50	
	LABOUR					
0131	Painter	day	0.35	816.00	285.60	
0115	Coolie	day	0.12	736.00	88.32	
0101	Bhisti	day	0.05	816.00	40.80	
9999	Brushes, sand paper etc	L.S.	3.15	2.27	7.15	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				532.87	W
	Add 1 % Water charges on “W”				5.33	
	TOTAL				538.20	X
	Add GST on “X” (multiplying factor 0.2127)				114.48	
	TOTAL				652.68	Y
	Add 15% CPOH on “Y”				97.90	
	TOTAL				750.58	Z
	Add Cess @ 1% on “Z”				7.51	
	Cost of 10.00 sqm				758.09	
	Cost of 1.00 sqm				75.81	
	Say				75.80	

13.110 Finishing walls with textured exterior paint of required shade :

13.110.1 Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8507	Textured exterior paint	litre	3.28	185.00	606.80	
9977	Carriage of material	L.S.	1.56	2.27	3.54	
	LABOUR					
0131	Painter	day	0.46	816.00	375.36	
0115	Coolie	day	0.23	736.00	169.28	
9999	Brushes, sand paper etc	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1189.51	W
	Add 1 % Water charges on “W”				11.90	
	TOTAL				1201.41	X
	Add GST on “X” (multiplying factor 0.2127)				255.54	
	TOTAL				1456.95	Y
	Add 15% CPOH on “Y”				218.54	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1675.49	Z
	Add Cess @ 1% on “Z”				16.75	
	Cost of 10.00 sqm				1692.24	
	Cost of 1.00 sqm				169.22	
	Say				169.20	

13.110.2 Old work (One or more coats) applied @ 1.82 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8507	Textured exterior paint	litre	1.82	185.00	336.70	
9977	Carriage of material	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.33	816.00	269.28	
0115	Coolie	day	0.17	736.00	125.12	
9999	Brushes, sand paper etc	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				766.81	W
	Add 1 % Water charges on “W”				7.67	
	TOTAL				774.48	X
	Add GST on “X” (multiplying factor 0.2127)				164.73	
	TOTAL				939.21	Y
	Add 15% CPOH on “Y”				140.88	
	TOTAL				1080.09	Z
	Add Cess @ 1% on “Z”				10.80	
	Cost of 10.00 sqm				1090.89	
	Cost of 1.00 sqm				109.09	
	Say				109.10	

13.111 Finishing walls with Acrylic Smooth exterior paint of required shade :

13.111.1 Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8505	Acrylic exterior paint	litre	1.67	170.00	283.90	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0131	Painter	day	0.46	816.00	375.36	
0115	Coolie	day	0.23	736.00	169.28	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	8.06	2.27	18.30	
	TOTAL				848.91	W
	Add 1 % Water charges on “W”				8.49	
	TOTAL				857.40	X
	Add GST on “X” (multiplying factor 0.2127)				182.37	
	TOTAL				1039.77	Y
	Add 15% CPOH on “Y”				155.97	
	TOTAL				1195.74	Z
	Add Cess @ 1% on “Z”				11.96	
	Cost of 10.00 sqm				1207.70	
	Cost of 1.00 sqm				120.77	
	Say				120.75	

13.111.2 Old work (One or more coat applied @ 0.90 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8505	Acrylic exterior paint	litre	0.90	170.00	153.00	
9977	Carriage of material	L.S.	0.52	2.27	1.18	
	LABOUR					
0131	Painter	day	0.33	816.00	269.28	
0115	Coolie	day	0.17	736.00	125.12	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	8.06	2.27	18.30	
	TOTAL				566.88	W
	Add 1 % Water charges on “W”				5.67	
	TOTAL				572.55	X
	Add GST on “X” (multiplying factor 0.2127)				121.78	
	TOTAL				694.33	Y
	Add 15% CPOH on “Y”				104.15	
	TOTAL				798.48	Z
	Add Cess @ 1% on “Z”				7.98	
	Cost of 10.00 sqm				806.46	
	Cost of 1.00 sqm				80.65	
	Say				80.65	

13.112 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade

13.112.1 Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8506	Premium Acrylic exterior paint	litre	1.43	250.00	357.50	
9977	Carriage of material	L.S.	1.04	2.27	2.36	
	LABOUR					
0131	Painter	day	0.46	816.00	375.36	
0115	Coolie	day	0.23	736.00	169.28	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	8.06	2.27	18.30	
	TOTAL				922.80	W
	Add 1 % Water charges on “W”				9.23	
	TOTAL				932.03	X
	Add GST on “X” (multiplying factor 0.2127)				198.24	
	TOTAL				1130.27	Y
	Add 15% CPOH on “Y”				169.54	
	TOTAL				1299.81	Z
	Add Cess @ 1% on “Z”				13.00	
	Cost of 10.00 sqm				1312.81	
	Cost of 1.00 sqm				131.28	
	Say				131.30	

13.112.2 Old work (one or more coats applied @ 0.83 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8506	Premium Acrylic exterior paint	litre	0.83	250.00	207.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0131	Painter	day	0.33	816.00	269.28	
0115	Coolie	day	0.17	736.00	125.12	
9999	Sundries for brushes,sand paper,scaffolding etc.	L.S.	8.06	2.27	18.30	
	TOTAL				622.27	W
	Add 1 % Water charges on “W”				6.22	
	TOTAL				628.49	X
	Add GST on “X” (multiplying factor 0.2127)				133.68	
	TOTAL				762.17	Y
	Add 15% CPOH on “Y”				114.33	
	TOTAL				876.50	Z
	Add Cess @ 1% on “Z”				8.77	
	Cost of 10.00 sqm				885.27	
	Cost of 1.00 sqm				88.53	
	Say				88.55	

13.113 Varnishing with varnish of approved brand and manufacture:

13.113.1 One or more coats with copal varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0857	Superior copal varnish	litre	0.70	115.00	80.50	
9977	Carriage	L.S.	0.52	2.27	1.18	
9999	Repair to the surface	L.S.	2.73	2.27	6.20	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Brushes, sand paper etc	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				664.90	W
	Add 1 % Water charges on “W”				6.65	
	TOTAL				671.55	X
	Add GST on “X” (multiplying factor 0.2127)				142.84	
	TOTAL				814.39	Y
	Add 15% CPOH on “Y”				122.16	
	TOTAL				936.55	Z
	Add Cess @ 1% on “Z”				9.37	
	Cost of 10.00 sqm				945.92	
	Cost of 1.00 sqm				94.59	
	Say				94.60	

13.113.2 One or more coats with spar varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0858	Superior spar varnish	litre	0.75	115.00	86.25	
9977	Carriage	L.S.	0.52	2.27	1.18	
9999	Repair etc	L.S.	2.73	2.27	6.20	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0131	Painter	day	0.36	816.00	293.76	
0115	Coolie	day	0.36	736.00	264.96	
9999	Brushes, sand paper etc	L.S.	2.73	2.27	6.20	
9999	Sundries	L.S.	4.16	2.27	9.44	
	TOTAL				667.99	W
	Add 1 % Water charges on “W”				6.68	
	TOTAL				674.67	X
	Add GST on “X” (multiplying factor 0.2127)				143.50	
	TOTAL				818.17	Y
	Add 15% CPOH on “Y”				122.73	
	TOTAL				940.90	Z
	Add Cess @ 1% on “Z”				9.41	
	Cost of 10.00 sqm				950.31	
	Cost of 1.00 sqm				95.03	
	Say				95.05	

13.114 Melamine polishing on wood work (one or more coat).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
7241	Melamine polish	litre	0.65	327.00	212.55	
0006	Hire charges of Spraying machine including electric charges	day	0.78	9750.00	7605.00	
9988	Carriage charge of Machine & Marerial	L.S.	4.42	2.27	10.03	
	LABOUR					
0131	Painter	day	0.35	816.00	285.60	
0114	Beldar	day	0.35	736.00	257.60	
9999	Sundries	L.S.	4.42	2.27	10.03	
	TOTAL				8380.81	W
	Add 1 % Water charges on “W”				83.81	
	TOTAL				8464.62	X
	Add GST on “X” (multiplying factor 0.2127)				1800.42	
	TOTAL				10265.04	Y
	Add 15% CPOH on “Y”				1539.76	
	TOTAL				11804.80	Z
	Add Cess @ 1% on “Z”				118.05	
	Cost of 10.00 sqm				11922.85	
	Cost of 1.00 sqm				1192.29	
	Say				1192.30	

13.115 Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0856	Ordinary varnish	litre	0.70	110.00	77.00	
9999	Glue, putty etc	L.S.	2.73	2.27	6.20	
9977	Carriage	L.S.	1.82	2.27	4.13	
9999	Painting brushes, turpentine, stencil etc	L.S.	24.18	2.27	54.89	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	0.36	736.00	264.96	
	TOTAL				700.94	W
	Add 1 % Water charges on "W"				7.01	
	TOTAL				707.95	X
	Add GST on "X" (multiplying factor 0.2127)				150.58	
	TOTAL				858.53	Y
	Add 15% CPOH on "Y"				128.78	
	TOTAL				987.31	Z
	Add Cess @ 1% on "Z"				9.87	
	Cost of 10.00 sqm				997.18	
	Cost of 1.00 sqm				99.72	
	Say				99.70	

13.116 Polishing in high gloss/matt finish melamine clear polish on wood work in required color/ wooden shade texture with following process in the sequence as detailed below:
1. The surface to be polished is rubbed with sand paper 80/120 no. and then with sand paper of 160/180 nos.
2. Applying two coats of sealer with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs.
3. On drying of sealer coat, wet rubbing with emery cloth of finer grading with ample water to remove excess sealer layer and make the surface further smooth after this wet rubbing, then surface is applied with special grade melamine fillers to fill all the small and big holes/ grooves etc. Filler coat to be allowed to dry for 4 to 6 hrs on which again a light wet rubbing is done this surface is further allowed to dry for 12 hrs.
4. On this, 1st coat of melamine polish is applied with spray gun using melamine clear polish and melamine thinner in required proportion. This 1st coat is allowed to dry for 24 hrs then this dry surface is again fine wet rubbed smooth, which is further allowed to dry for 12 hrs. The final melamine polish is applied with compressor pressure spray gun using melamine clear polish and melamine thinner mixed in required proportion complete as per direction of Engineer-in-Charge. (Final coat to be done in 1 or 2 layers without gap of time.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
7241	Melamine Matt clear polish	litre	1.56	327.00	510.12	
5766	Melamine wood sealer	litre	2.80	200.00	560.00	
5767	Melamine solvent/thinner	litre	2.85	125.00	356.25	
5768	Sanding cloth 150 mm wide	metre	6.00	65.00	390.00	
5769	Sand papers of assorted gratings	Nos	16.00	25.00	400.00	
5770	Melamine wood filler putty	Kg	1.50	120.00	180.00	
5771	Dhoti (worm out soft cotton cloth)	Nos	2.00	25.00	50.00	
	LABOUR					
0167	Polisher 1st class	day	1.66	897.00	1489.02	
0168	Polisher 2nd class	day	3.25	816.00	2652.00	
0114	Beldrs/Coolies	day	2.00	736.00	1472.00	
0006	Hire charges of compressor machine spare gun etc., with electric charges	day	1.25	9750.00	12187.50	
9999	Sundries including scaffolding & T&P etc.	L.S.	300.00	2.27	681.00	
5779	Grinding buffers	day	2.00	255.00	510.00	
	TOTAL				21437.89	W
	Add 1 % Water charges on "W"				214.38	
	TOTAL				21652.27	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				4605.44	
	TOTAL				26257.71	Y
	Add 15% CPOH on “Y”				3938.66	
	TOTAL				30196.37	Z
	Add Cess @ 1% on “Z”				301.96	
	Cost of 10.00 sqm				30498.33	
	Cost of 1.00 sqm				3049.83	
	Say				3049.85	

SUB HEAD : 14.0
REPAIRS TO BUILDING

14.1 Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.1.1 With cement mortar 1:4 (1 cement : 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.183	3708.80	678.71	
	LABOUR					
0155	Mason (average)	day	1.21	857.00	1036.97	
0115	Coolie	day	1.29	736.00	949.44	
0114	Beldar	day	0.54	736.00	397.44	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	15.21	2.27	34.53	
	TOTAL				3847.81	W
	Add 1 % Water charges on “W”				38.48	
	TOTAL				3886.29	X
	Add GST on “X” (multiplying factor 0.2127)				826.61	
	TOTAL				4712.90	Y
	Add 15% CPOH on “Y”				706.94	
	TOTAL				5419.84	Z
	Add Cess @ 1% on “Z”				54.20	
	Cost of 10.00 sqm				5474.04	
	Cost of 1.00 sqm				547.40	
	Say				547.40	

14.1.2 With cement mortar 1:4 (1cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.183	4211.70	770.74	
	LABOUR					
0155	Mason (average)	day	1.21	857.00	1036.97	
0115	Coolie	day	1.29	736.00	949.44	
0114	Beldar	day	0.54	736.00	397.44	
0101	Bhisti	day	0.92	816.00	750.72	
9999	Scaffolding and sundries	L.S.	15.21	2.27	34.53	
	TOTAL				3939.84	W
	Add 1 % Water charges on “W”				39.40	
	TOTAL				3979.24	X
	Add GST on “X” (multiplying factor 0.2127)				846.38	
	TOTAL				4825.62	Y
	Add 15% CPOH on “Y”				723.84	
	TOTAL				5549.46	Z
	Add Cess @ 1% on “Z”				55.49	
	Cost of 10.00 sqm				5604.95	
	Cost of 1.00 sqm				560.50	
	Say				560.50	

14.2 Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.2.1 Door chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 Nos.					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.210	1425.00	299.25	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.072	1400.00	100.80	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.282	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.141	1450.00	204.45	
2203	Carriage of Coarse sand	cum	0.141	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.066	5156.00	340.30	
2209	Carriage of Cement	tonne	0.066	0.00	0.00	
0114	Beldar	day	0.270	736.00	198.72	
0115	Coolie	day	0.195	736.00	143.52	
0130	Mistry	day	0.084	897.00	75.35	
0123	Mason 1st class	day	0.018	897.00	16.15	
0124	Mason 2nd class	day	0.018	816.00	14.69	
0128	Mate	day	0.012	816.00	9.79	
9999	Scaffolding	L.S.	14.300	2.27	32.46	
9999	Hire and running charges of mechanical mixer	L.S.	7.800	2.27	17.71	
9999	Sundries	L.S.	3.900	2.27	8.85	
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.100	3038.50	303.85	
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	241.800	2.27	548.89	
9999	Painting two coats of coaltar	L.S.	135.200	2.27	306.90	
9999	Disposal of mulba	L.S.	18.200	2.27	41.31	
0155	Mason (average)	day	5.000	857.00	4285.00	
0114	Beldar	day	7.500	736.00	5520.00	
9999	Sundries	L.S.	27.300	2.27	61.97	
	TOTAL				12529.96	W
	Add 1 % Water charges on “W”				125.30	
	TOTAL				12655.26	X
	Add GST on “X” (multiplying factor 0.2127)				2691.77	
	TOTAL				15347.03	Y
	Add 15% CPOH on “Y”				2302.05	
	TOTAL				17649.08	Z
	Add Cess @ 1% on “Z”				176.49	
	Cost of 10 Nos.				17825.57	
	Cost of each				1782.56	
	Say				1782.55	

14.2.2 Window chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 Nos.					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.140	1425.00	199.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.048	1400.00	67.20	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.188	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.094	1450.00	136.30	
2203	Carriage of Coarse sand	cum	0.094	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.044	5156.00	226.86	
2209	Carriage of Cement	tonne	0.044	0.00	0.00	
0114	Beldar	day	0.180	736.00	132.48	
0115	Coolie	day	0.130	736.00	95.68	
0130	Mistry	day	0.056	897.00	50.23	
0123	Mason 1st class	day	0.012	897.00	10.76	
0124	Mason 2nd class	day	0.012	816.00	9.79	
0128	Mate	day	0.008	816.00	6.53	
9999	Scaffolding and sundries	L.S.	9.100	2.27	20.66	
9999	Hire and running charges of mechanical mixer	L.S.	5.200	2.27	11.80	
9999	Sundries	L.S.	2.600	2.27	5.90	
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.060	3038.50	182.31	
9999	Cement concrete 1:2:4	L.S.	98.800	2.27	224.28	
9999	Painting two coats of coaltar	L.S.	9.100	2.27	20.66	
0155	Mason (average)	day	3.300	857.00	2828.10	
0114	Beldar	day	5.000	736.00	3680.00	
	TOTAL				7909.04	W
	Add 1 % Water charges on “W”				79.09	
	TOTAL				7988.13	X
	Add GST on “X” (multiplying factor 0.2127)				1699.08	
	TOTAL				9687.21	Y
	Add 15% CPOH on “Y”				1453.08	
	TOTAL				11140.29	Z
	Add Cess @ 1% on “Z”				111.40	
	Cost of 10 Nos.				11251.69	
	Cost of each				1125.17	
	Say				1125.15	

14.2.3 Clerestory window chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 Nos.					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.070	1425.00	99.75	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.024	1400.00	33.60	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.094	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.047	1450.00	68.15	
2203	Carriage of Coarse sand	cum	0.047	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.022	5156.00	113.43	
2209	Carriage of Cement	tonne	0.022	0.00	0.00	
0114	Beldar	day	0.090	736.00	66.24	
0115	Coolie	day	0.065	736.00	47.84	
0130	Mistry	day	0.028	897.00	25.12	
0123	Mason 1st class	day	0.006	897.00	5.38	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0124	Mason 2nd class	day	0.006	816.00	4.90	
0128	Mate	day	0.004	816.00	3.26	
9999	Scaffolding and sundries	L.S.	5.200	2.27	11.80	
9999	Hire and running charges of mechanical mixer	L.S.	2.600	2.27	5.90	
9999	Sundries	L.S.	1.300	2.27	2.95	
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.030	3038.50	91.16	
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	80.600	2.27	182.96	
9999	Painting two coats of coaltar	L.S.	9.100	2.27	20.66	
0155	Mason (average)	day	1.700	857.00	1456.90	
0114	Beldar	day	5.000	736.00	3680.00	
9999	Sundries	L.S.	27.300	2.27	61.97	
	TOTAL				5981.97	W
	Add 1 % Water charges on “W”				59.82	
	TOTAL				6041.79	X
	Add GST on “X” (multiplying factor 0.2127)				1285.09	
	TOTAL				7326.88	Y
	Add 15% CPOH on “Y”				1099.03	
	TOTAL				8425.91	Z
	Add Cess @ 1% on “Z”				84.26	
	Cost of 10 Nos.				8510.17	
	Cost of each				851.02	
	Say				851.00	

14.3 Fixing chowkhat in existing opening in brick/ RCC wall with dash fasteners/Chemical fasteners of appropriate size (3 nos on each vertical member of door chowkhat and 2 nos on each vertical member of window chowkhats), including Cost of dash fasteners/ chemical fastener.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos. chowkhat.					
0114	Beldar	day	0.270	736.00	198.72	
0115	Coolie	day	0.195	736.00	143.52	
0130	Mistry	day	0.084	897.00	75.35	
0128	Mate	day	0.012	816.00	9.79	
9999	Disposal of mulba	L.S.	18.200	2.27	41.31	
7019	Dash fastner/ chemical fastener	each	60.000	13.00	780.00	
9999	Hire charges of drill machine hire charges, Scaffolding and Sundries	L.S.	122.200	2.27	277.39	
	TOTAL				1526.08	W
	Add 1 % Water charges on “W”				15.26	
	TOTAL				1541.34	X
	Add GST on “X” (multiplying factor 0.2127)				327.84	
	TOTAL				1869.18	Y
	Add 15% CPOH on “Y”				280.38	
	TOTAL				2149.56	Z
	Add Cess @ 1% on “Z”				21.50	
	Cost of 10 Nos.				2171.06	
	Cost of each				217.11	
	Say				217.10	

14.4 Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.

14.4.1 For door/ window/ clerestory window

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one opening of size 0.90x2.10m = 1.89 sqm Cement mortar 1:6 (1 cement: 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.01	3038.50	30.39	
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.57	2.27	55.77	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.20	736.00	883.20	
0115	Coolie	day	0.40	736.00	294.40	
9999	Scaffolding and Sundries	L.S.	3.50	2.27	7.95	
	TOTAL				1679.71	W
	Add 1 % Water charges on “W”				16.80	
	TOTAL				1696.51	X
	Add GST on “X” (multiplying factor 0.2127)				360.85	
	TOTAL				2057.36	Y
	Add 15% CPOH on “Y”				308.60	
	TOTAL				2365.96	Z
	Add Cess @ 1% on “Z”				23.66	
	Cost of 1.89sqm.				2389.62	
	Cost of 1.00 sqm.				1264.35	
	Say				1264.35	

14.5 Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:

14.5.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL					
2406	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	321.00	353.10	
9988	Carriage including sundries	L.S.	1.82	2.27	4.13	
0863	Putty for wood work	kilogram	0.68	32.00	21.76	
9999	Painting or varnishing or beewaxing	L.S.	5.33	2.27	12.10	
9999	Sundries Nails etc.	L.S.	6.76	2.27	15.35	
0119	Glazier	day	0.23	816.00	187.68	
0114	Beldar	day	0.23	736.00	169.28	
9999	Sundries such as Rag, cotton etc	L.S.	1.43	2.27	3.25	
	TOTAL				766.65	W
	Add 1 % Water charges on “W”				7.67	
	TOTAL				774.32	X
	Add GST on “X” (multiplying factor 0.2127)				164.70	
	TOTAL				939.02	Y
	Add 15% CPOH on “Y”				140.85	
	TOTAL				1079.87	Z
	Add Cess @ 1% on “Z”				10.80	
	Cost of 1.00 sqm				1090.67	
	Say				1090.65	

14.5.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL					
2407	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	529.00	581.90	
9988	Carriage including sundries	L.S.	1.82	2.27	4.13	
0863	Putty for wood work	kilogram	0.68	32.00	21.76	
9999	Painting or varnishing or beewaxing	L.S.	5.33	2.27	12.10	
9999	Sundries Nails etc.	L.S.	6.76	2.27	15.35	
0119	Glazier	day	0.23	816.00	187.68	
0114	Beldar	day	0.23	736.00	169.28	
9999	Sundries such as Rag, cotton etc	L.S.	1.43	2.27	3.25	
	TOTAL				995.45	W
	Add 1 % Water charges on “W”				9.95	
	TOTAL				1005.40	X
	Add GST on “X” (multiplying factor 0.2127)				213.85	
	TOTAL				1219.25	Y
	Add 15% CPOH on “Y”				182.89	
	TOTAL				1402.14	Z
	Add Cess @ 1% on “Z”				14.02	
	Cost of 1.00 sqm				1416.16	
	Say				1416.15	

14.6 Renewing glass panes, with wooden fillets wherever necessary:

14.6.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL					
2406	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	321.00	353.10	
1189	Second class teak wood in scantling	10 cudm	0.025	776.00	19.40	
1194	Second class deodar wood in planks	10 cudm	0.025	500.00	12.50	
1196	First class kail wood in planks	10 cudm	0.025	300.00	7.50	
9999	Painting or varnishing or beewaxing	L.S.	4.42	2.27	10.03	
9999	Sundries Nails etc.	L.S.	2.73	2.27	6.20	
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0119	Glazier	day	0.25	816.00	204.00	
0114	Beldar	day	0.45	736.00	331.20	
9999	Sundries such as Rag, cotton etc	L.S.	1.82	2.27	4.13	
	TOTAL				1111.26	W
	Add 1 % Water charges on “W”				11.11	
	TOTAL				1122.37	X
	Add GST on “X” (multiplying factor 0.2127)				238.73	
	TOTAL				1361.10	Y
	Add 15% CPOH on “Y”				204.17	
	TOTAL				1565.27	Z
	Add Cess @ 1% on “Z”				15.65	
	Cost of 1.00 sqm				1580.92	
	Say				1580.90	

14.6.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL					
2407	Float glass sheet of nominal thickness					
	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	529.00	581.90	
1189	Second class teak wood in scantling	10 cudm	0.025	776.00	19.40	
1194	Second class deodar wood in planks	10 cudm	0.025	500.00	12.50	
1196	First class kail wood in planks	10 cudm	0.025	300.00	7.50	
9999	Painting or varnishing or beewaxing	L.S.	4.42	2.27	10.03	
9999	Sundries Nails etc.	L.S.	2.73	2.27	6.20	
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0119	Glazier	day	0.25	816.00	204.00	
0114	Beldar	day	0.45	736.00	331.20	
9999	Sundries such as Rag, cotton etc	L.S.	1.82	2.27	4.13	
	TOTAL				1340.06	W
	Add 1 % Water charges on “W”				13.40	
	TOTAL				1353.46	X
	Add GST on “X” (multiplying factor 0.2127)				287.88	
	TOTAL				1641.34	Y
	Add 15% CPOH on “Y”				246.20	
	TOTAL				1887.54	Z
	Add Cess @ 1% on “Z”				18.88	
	Cost of 1.00 sqm				1906.42	
	Say				1906.40	

14.7 Renewing glass panes and refixing existing wooden fillets:

14.7.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL					
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	321.00	353.10	
9977	Carriage of glasspanes and other materials	L.S.	2.73	2.27	6.20	
9999	Sundries Nails etc.	L.S.	9.88	2.27	22.43	
9999	Methylated spirit	L.S.	5.33	2.27	12.10	
0119	Glazier	day	0.30	816.00	244.80	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				862.68	W
	Add 1 % Water charges on “W”				8.63	
	TOTAL				871.31	X
	Add GST on “X” (multiplying factor 0.2127)				185.33	
	TOTAL				1056.64	Y
	Add 15% CPOH on “Y”				158.50	
	TOTAL				1215.14	Z
	Add Cess @ 1% on “Z”				12.15	
	Cost of 1.00 sqm				1227.29	
	Say				1227.30	

14.7.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 glasses area each 0.1sqm.					
	MATERIAL					
2407	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	529.00	581.90	
9977	Carriage of glasspanes and other materials	L.S.	2.73	2.27	6.20	
9999	Sundries Nails etc.	L.S.	9.88	2.27	22.43	
9999	Methylated spirit	L.S.	5.33	2.27	12.10	
0119	Glazier	day	0.30	816.00	244.80	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				1091.48	W
	Add 1 % Water charges on “W”				10.91	
	TOTAL				1102.39	X
	Add GST on “X” (multiplying factor 0.2127)				234.48	
	TOTAL				1336.87	Y
	Add 15% CPOH on “Y”				200.53	
	TOTAL				1537.40	Z
	Add Cess @ 1% on “Z”				15.37	
	Cost of 1.00 sqm				1552.77	
	Say				1552.75	

14.8 Supplying and fixing new wooden fillets wherever necessary:

14.8.1 2nd class teak wood fillets

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres length					
	MATERIAL					
1190	Second class teak wood in planks 10.00x0.01x0.01 = 1.00 cudm	10 cudm	0.115	791.00	90.97	
	Add 15% wastage = 0.15 cudm					
	Total = 1.15 cudm					
9999	Nails	L.S.	26.91	2.27	61.09	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	816.00	204.00	
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				546.26	W
	Add 1 % Water charges on “W”				5.46	
	TOTAL				551.72	X
	Add GST on “X” (multiplying factor 0.2127)				117.35	
	TOTAL				669.07	Y
	Add 15% CPOH on “Y”				100.36	
	TOTAL				769.43	Z
	Add Cess @ 1% on “Z”				7.69	
	Cost of 10.00 metre				777.12	
	Cost of 1.00 metre				77.71	
	Say				77.70	

14.8.2 Hollock wood fillets

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres length					
	MATERIAL					
2466	Hollock wood in scantling	10 cudm	0.115	366.00	42.09	
	10.00x0.01x0.01 = 1.00 cudm					
	Add 15% wastage = 0.15 cudm					
	Total = 1.15 cudm					
9999	Nails	L.S.	26.91	2.27	61.09	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	816.00	204.00	
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				497.38	W
	Add 1 % Water charges on “W”				4.97	
	TOTAL				502.35	X
	Add GST on “X” (multiplying factor 0.2127)				106.85	
	TOTAL				609.20	Y
	Add 15% CPOH on “Y”				91.38	
	TOTAL				700.58	Z
	Add Cess @ 1% on “Z”				7.01	
	Cost of 10.00 metre				707.59	
	Cost of 1.00 metre				70.76	
	Say				70.75	

14.9 Renewal of old putty of glass panes (length)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 13 metres length					
	MATERIAL					
0863	Putty for wood work	kilogram	0.68	32.00	21.76	
9999	Nails	L.S.	7.15	2.27	16.23	
9999	Spirit	L.S.	2.73	2.27	6.20	
	LABOUR					
0112	Carpenter 2nd class	day	0.30	816.00	244.80	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				513.04	W
	Add 1 % Water charges on “W”				5.13	
	TOTAL				518.17	X
	Add GST on “X” (multiplying factor 0.2127)				110.21	
	TOTAL				628.38	Y
	Add 15% CPOH on “Y”				94.26	
	TOTAL				722.64	Z
	Add Cess @ 1% on “Z”				7.23	
	Cost of 13.00 metres				729.87	
	Cost of 1.00 metre				56.14	
	Say				56.15	

14.10 Refixing old glass panes with putty and nails

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 sqm					
0863	Putty for wood work	kilogram	0.68	32.00	21.76	
9999	Spirit	L.S.	2.73	2.27	6.20	
9999	Nails	L.S.	7.15	2.27	16.23	
	LABOUR					
0119	Glazier	day	0.30	816.00	244.80	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				513.04	W
	Add 1 % Water charges on “W”				5.13	
	TOTAL				518.17	X
	Add GST on “X” (multiplying factor 0.2127)				110.21	
	TOTAL				628.38	Y
	Add 15% CPOH on “Y”				94.26	
	TOTAL				722.64	Z
	Add Cess @ 1% on “Z”				7.23	
	Add 15 % Contractor’s profit and overheads				729.87	
	Cost of 1.00 sqm				729.87	
	Say				729.85	

14.11 Fixing old glass panes with wooden fillets (excluding cost of fillets)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 sqm					
	LABOUR					
0119	Glazier	day	0.30	816.00	244.80	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
9999	Nails	L.S.	3.90	2.27	8.85	
	TOTAL				477.70	W
	Add 1 % Water charges on “W”				4.78	
	TOTAL				482.48	X
	Add GST on “X” (multiplying factor 0.2127)				102.62	
	TOTAL				585.10	Y
	Add 15% CPOH on “Y”				87.77	
	TOTAL				672.87	Z
	Add Cess @ 1% on “Z”				6.73	
	Cost of 1.00 sqm				679.60	
	Say				679.60	

14.12 Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 Nos. fan clamp.					
	MATERIAL					
	M.S.bar 16mm dia = 100x0.40 m (including wastage) @ 1.58 kg/m = 63.2 kg=0.632 q					
1003	Mild steel round bar above 12 mm dia	quintal	0.632	5450.00	3444.40	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate 20mm nominal size) mortar for rendering or plastering	L.S.	1352.000	2.27	3069.04	
9999	Painting two or more coats to exposed portion of the clamp including priming coat	L.S.	715.000	2.27	1623.05	
	Labour for fixing					
0102	Blacksmith 1st class	day	3.000	897.00	2691.00	
0124	Mason 2nd class	day	12.000	816.00	9792.00	
0114	Beldar	day	25.000	736.00	18400.00	
9999	Sundries	L.S.	273.000	2.27	619.71	
	TOTAL				39639.20	W
	Add 1 % Water charges on “W”				396.39	
	TOTAL				40035.59	X
	Add GST on “X” (multiplying factor 0.2127)				8515.57	
	TOTAL				48551.16	Y
	Add 15% CPOH on “Y”				7282.67	
	TOTAL				55833.83	Z
	Add Cess @ 1% on “Z”				558.34	
	Cost of 100 Nos.				56392.17	
	Cost of each				563.92	
	Say				563.90	

14.13 Regrading terracing of mud phaska covered with tiles or brick, in cement mortar by dismantling tiles or bricks, removing mud plaster, preparing the surface of mud phaska to proper slope, relaying mud plaster gobri leaping and tiles or bricks, grouted in cement mortar 1:3 (1 cement : 3 fine sand), including replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material to the dumping ground (the cost of the new tiles or brick excluded), all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	(i) Dismantling tiles/bricks in cement mortar including removing mud plaster and cleaning the tiles/bricks					
	LABOUR					
0155	Mason (average)	day	0.54	857.00	462.78	
0114	Beldar	day	0.54	736.00	397.44	
	(ii) Preparing the surface, for mud phuska to proper slope, relaying mud plaster gobri leeping.					
0155	Mason (average)	day	0.27	857.00	231.39	
	25mm thick mud plaster including gobri leaping					
	MATERIAL					
	Mud mortar					
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.24	940.55	225.73	
0308	Bhusa	quintal	0.084	530.00	44.52	
	Gobri mortar					
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.12	940.55	112.87	
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
	(iii) relaying tiles/bricks including Cement mortar 1:3 (1 Cement : 3 fine sand) for grouting					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.3	Rate as per item No 3.3 of SH: Mortars	cum	0.061	4379.05	267.12	
	LABOUR					
0155	Mason (average)	day	1.20	857.00	1028.40	
0114	Beldar	day	1.50	736.00	1104.00	
0101	Bhisti	day	1.00	816.00	816.00	
9999	Disposal of mulba	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				4892.55	W
	Add 1 % Water charges on “W”				48.93	
	TOTAL				4941.48	X
	Add GST on “X” (multiplying factor 0.2127)				1051.05	
	TOTAL				5992.53	Y
	Add 15% CPOH on “Y”				898.88	
	TOTAL				6891.41	Z
	Add Cess @ 1% on “Z”				68.91	
	Cost of 10.00 sqm				6960.32	
	Cost of 1.00 sqm				696.03	
	Say				696.05	

14.14 Replacing sand stone slabs in roofing, laid in cement mortar 1:4 (1 cement : 4 coarse sand), including necessary repairs and cement pointing with same mortar complete, including disposal of rubbish to dumping ground, all complete as per direction of Engineer-in-Charge.

14.14.1 Red/ white sand stone slabs 30 to 50 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm					
	Dismantling existing stone, slabs roofing 10x10 sqmx0.05m = 5 cum.					
0114	Beldar	day	8.850	736.00	6513.60	
0115	Coolie	day	3.750	736.00	2760.00	
9999	Sundries	L.S.	40.300	2.27	91.48	
9999	Cleaning the surface including necessary repairs	L.S.	404.300	2.27	917.76	
1174	Red sand stone slab 45 mm and 50 mm thick (un-dressed)	sqm	110.000	340.00	37400.00	
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	14.100	0.00	0.00	
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.105	4211.70	442.23	
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.075	4379.05	328.43	
0155	Mason (average)	day	16.900	857.00	14483.30	
0100	Bandhani	day	20.300	816.00	16564.80	
0115	Coolie	day	16.900	736.00	12438.40	
0101	Bhisti	day	3.400	816.00	2774.40	
9999	Sundries	L.S.	161.200	2.27	365.92	
2264	Carriage of Rubbish	cum	5.000	185.55	927.75	
	TOTAL				96008.07	W
	Add 1 % Water charges on “W”				960.08	
	TOTAL				96968.15	X
	Add GST on “X” (multiplying factor 0.2127)				20625.13	
	TOTAL				117593.28	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				17638.99	
	TOTAL				135232.27	Z
	Add Cess @ 1% on "Z"				1352.32	
	Cost of 100 sqm				136584.59	
	Cost of 1.00 sqm				1365.85	
	Say				1365.85	

14.15 Renewing wooden battens in roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.15.1 Sal wood battens

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 battens i.e. 300 cudm					
	3 metres long of 100x100mm					
	10x3x0.1x0.1 = 0.3cum =300cudm					
	Add wastage @ 2%= 6 cudm, Total = 306 cudm					
	MATERIAL					
1199	Sal wood in scantling	10 cudm	30.60	600.00	18360.00	
2204	Carriage of Timber	cum	0.306	0.00	0.00	
	LABOUR					
	Taking out the existing battens and refixing new one including supporting the roof					
0112	Carpenter 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	2.00	736.00	1472.00	
9999	Disposal of mulba	L.S.	5.33	2.27	12.10	
9999	Making good the holes including sundries	L.S.	80.73	2.27	183.26	
0859	Oil type wood preservative	litre	1.22	130.00	158.60	
0131	Painter	day	0.183	816.00	149.33	
0115	Coolie	day	0.183	736.00	134.69	
9977	Carriage	L.S.	0.78	2.27	1.77	
9999	Brushes	L.S.	5.07	2.27	11.51	
9999	Sundries	L.S.	4.81	2.27	10.92	
	TOTAL				20902.18	W
	Add 1 % Water charges on "W"				209.02	
	TOTAL				21111.20	X
	Add GST on "X" (multiplying factor 0.2127)				4490.35	
	TOTAL				25601.55	Y
	Add 15% CPOH on "Y"				3840.23	
	TOTAL				29441.78	Z
	Add Cess @ 1% on "Z"				294.42	
	Cost of 300 Cudm				29736.20	
	Cost of 1.00 cum				99120.67	
	Say				99120.65	

14.16 Renewing wooden beams in roofs including making good the holes in walls and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.16.1 Not exceeding 4.00 metres in length.

14.16.1.1 Sal wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3000 cudm or 3 cum					
	Consider 10 beam i.e. 3000 cudm.					
	10x0.25 x 0.30m x 4.0m (long) = 3 cum					
	Add wastage @ 2% (0.06 cum) = 3.06 cum =3060 cudm					
	(i) Propping the roof					
	MATERIAL					
	100x100mm salwood battens 1 metre long = 50 nos.x1.0x0.1x0.1 =0.5cum = 500 cudm. These materials can be used for 16 times Hence qty for one operation 1/16= 500/16 = 31.25 cudm					
1199	Sal wood in scantling	10 cudm	3.125	600.00	1875.00	
2204	Carriage of Timber	cum	0.031	0.00	0.00	
	LABOUR					
0112	Carpenter 2nd class	day	2.500	816.00	2040.00	
0114	Beldar	day	2.500	736.00	1840.00	
	(ii) Taking out the existing beams etc.					
	LABOUR					
0155	Mason (average)	day	1.300	857.00	1114.10	
0100	Bandhani	day	5.000	816.00	4080.00	
0114	Beldar	day	3.300	736.00	2428.80	
	(iii) Renewal					
	Materials and Labour					
1199	Sal wood in scantling	10 cudm	306.000	600.00	183600.00	
2204	Carriage of Timber	cum	3.060	0.00	0.00	
0112	Carpenter 2nd class	day	10.000	816.00	8160.00	
0100	Bandhani	day	5.000	816.00	4080.00	
0114	Beldar	day	10.000	736.00	7360.00	
	Painting with oil preservative=					
	10x[(4x1.1) +(2.0x0.25x0.30)] = 10x(4.4 + 0.15)= 45.5 sqm @ 1 litre/10sqm = 4.55 litre					
0859	Oil type wood preservative	litre	4.550	130.00	591.50	
0131	Painter	day	0.700	816.00	571.20	
0115	Coolie	day	0.700	736.00	515.20	
9999	Sundries	L.S.	1.300	2.27	2.95	
9977	Carriage	L.S.	18.200	2.27	41.31	
9999	Brushes	L.S.	18.200	2.27	41.31	
9999	Making good the holes	L.S.	206.700	2.27	469.21	
9999	Sundries	L.S.	269.100	2.27	610.86	
0302	Safeda ballies 125 mm diameter	metre	25.000	44.00	1100.00	
	TOTAL				220521.44	W
	Add 1 % Water charges on “W”				2205.21	
	TOTAL				222726.65	X
	Add GST on “X” (multiplying factor 0.2127)				47373.96	
	TOTAL				270100.61	Y
	Add 15% CPOH on “Y”				40515.09	
	TOTAL				310615.70	Z
	Add Cess @ 1% on “Z”				3106.16	
	Cost of 3.00 Cum				313721.86	
	Cost of 1.00 cum				104573.95	
	Say				104573.95	

14.16.1.2 Hollock wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3000 cudm or 3 cum					
	Consider 10 beam					
	10x0.25 x 0.30m x 4.0m (long) = 3 cum					
	Add wastage @ 2% (0.06 cum)= 3.06 cum =3060cudm					
	(I) Propping the roof					
	MATERIAL					
	100x100mm hollock wood battens 1.0 metre long = 50 nos.x1.0x0.1x0.1 =0.5cum = 500 cudm.					
	These materials can be used for 16 times hence qty for one operation 1/16 = 500/16= 31.25 cudm					
2466	Hollock wood in scantling	10 cudm	3.125	366.00	1143.75	
2204	Carriage of Timber	cum	0.031	0.00	0.00	
	LABOUR					
0112	Carpenter 2nd class	day	2.500	816.00	2040.00	
0114	Beldar	day	2.500	736.00	1840.00	
	(ii) Taking out the existing beams etc.					
	LABOUR					
0155	Mason (average)	day	1.300	857.00	1114.10	
0100	Bandhani	day	5.000	816.00	4080.00	
0114	Beldar	day	3.300	736.00	2428.80	
	(iii) Renewal					
	Materials and Labour					
2466	Hollock wood in scantling	10 cudm	306.000	366.00	111996.00	
2204	Carriage of Timber	cum	3.060	0.00	0.00	
0112	Carpenter 2nd class	day	10.000	816.00	8160.00	
0100	Bandhani	day	5.000	816.00	4080.00	
0114	Beldar	day	10.000	736.00	7360.00	
	Painting with oil preservative=					
	10x[(4x1.1) + (2.0x0.25x0.30)] =10(4.4 + 0.15)= 45.5 sqm @ 1 litre/10sqm = 4.55 litre					
0859	Oil type wood preservative	litre	4.550	130.00	591.50	
0131	Painter	day	0.700	816.00	571.20	
0115	Coolie	day	0.700	736.00	515.20	
9999	Sundries	L.S.	1.300	2.27	2.95	
9977	Carriage	L.S.	18.200	2.27	41.31	
9999	Brushes	L.S.	18.200	2.27	41.31	
9999	Making good the holes	L.S.	206.700	2.27	469.21	
9999	Sundries	L.S.	269.100	2.27	610.86	
0302	Safeda ballies 125 mm diameter	metre	25.000	44.00	1100.00	
	TOTAL				148186.19	W
	Add 1 % Water charges on “W”				1481.86	
	TOTAL				149668.05	X
	Add GST on “X” (multiplying factor 0.2127)				31834.39	
	TOTAL				181502.44	Y
	Add 15% CPOH on “Y”				27225.37	
	TOTAL				208727.81	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				2087.28	
	Cost of 3.00 Cum				210815.09	
	Cost of 1.00 cum				70271.70	
	Say				70271.70	

14.16.2 Above 4.00 metres and upto 5.00 metres length.

14.16.2.1 Sal wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3750 cudm or 3.75 cum					
	Consider 10 beam i.e. 3750 cudm.					
	10x0.25 x 0.30m x 5.0m (long) = 3.75 cum					
	Add wastage @ 2% (0.08 cum)					
	= 3.83 cum = 3830cudm					
	(i) Propping the roof					
	MATERIAL					
	100x100mm salwood battens 1.0 metre long 60 nos. x1.0x0.1x0.1 = 600 cudm.					
	These materials can be used for 16 times hence qty for one operation 1/16= 600/16 = 37.50 cudm					
1199	Sal wood in scantling	10 cudm	3.750	600.00	2250.00	
2204	Carriage of Timber	cum	0.038	0.00	0.00	
	LABOUR					
0112	Carpenter 2nd class	day	2.500	816.00	2040.00	
0114	Beldar	day	2.500	736.00	1840.00	
	(ii) Taking out the existing beams etc.					
	LABOUR					
0155	Mason (average)	day	2.500	857.00	2142.50	
0100	Bandhani	day	6.300	816.00	5140.80	
0114	Beldar	day	5.000	736.00	3680.00	
	(iii) Renewal					
	Materials and Labour					
1199	Sal wood in scantling	10 cudm	383.000	600.00	229800.00	
2204	Carriage of Timber	cum	3.830	0.00	0.00	
0112	Carpenter 2nd class	day	10.000	816.00	8160.00	
0100	Bandhani	day	10.000	816.00	8160.00	
0114	Beldar	day	20.000	736.00	14720.00	
	Painting with oil preservative= 10(5.00x1.1 + 2.0x0.25x0.30) = 10x(5.5 + 0.15) = 56.5 sqm @ 1 litre/10sqm = 5.65 litre					
0859	Oil type wood preservative	litre	5.650	130.00	734.50	
0131	Painter	day	0.800	816.00	652.80	
0115	Coolie	day	0.800	736.00	588.80	
9999	Sundries	L.S.	2.600	2.27	5.90	
9977	Carriage	L.S.	23.400	2.27	53.12	
9999	Brushes	L.S.	22.100	2.27	50.17	
9999	Making good the holes	L.S.	206.700	2.27	469.21	
9999	Sundries	L.S.	331.500	2.27	752.51	
0302	Safeda ballies 125 mm diameter	metre	37.500	44.00	1650.00	
	TOTAL				282890.31	W
	Add 1 % Water charges on "W"				2828.90	

Code	Description	Unit	Qty	Rate	Amount	
	TOTAL				285719.21	X
	Add GST on “X” (multiplying factor 0.2127)				60772.48	
	TOTAL				346491.69	Y
	Add 15% CPOH on “Y”				51973.75	
	TOTAL				398465.44	Z
	Add Cess @ 1% on “Z”				3984.65	
	Cost of 3.75 Cum				402450.09	
	Cost of 1.00 cum				107320.02	
	Say				107320.00	

14.16.2.2 Hollock wood beams

Code	Description	Unit	Qty	Rate	Amount	
	Details of cost for 3750 cudm or 3.75 cum					
	Consider 10 beam i.e. 3750 cudm.					
	10x0.25 x 0.30m x 5.0m (long) = 3.75 cum					
	Add wastage @ 2% (0.08 cum) = 3.83 cum = 3830cudm					
	(i) Propping the roof					
	MATERIAL					
	100x100mm Hollock wood battens 1.00 metre long= 60 nos. x1.0x0.1x0.1 = 600 cudm.					
	These materials can be used for 16 times hence qty for one operation 1/16= 600/16 = 37.5 cudm					
2466	Hollock wood in scantling	10 cudm	3.750	366.00	1372.50	
2204	Carriage of Timber	cum	0.038	0.00	0.00	
	LABOUR					
0112	Carpenter 2nd clas	day	2.500	816.00	2040.00	
0114	Beldar	day	2.500	736.00	1840.00	
	(ii) Taking out the existing beams etc					
0155	Mason (average)	day	2.500	857.00	2142.50	
100	Bandhani	day	6.300	816.00	5140.80	
0114	Beldar	day	5.000	736.00	3680.00	
	(iii) Renewal					
	Materials and Labour					
2466	Hollock wood in scantling	10 cudm	383.000	366.00	140178.00	
2204	Carriage of Timber	cum	3.830	0.00	0.00	
0112	Carpenter 2nd clas	day	10.000	816.00	8160.00	
0100	Bandhani	day	10.000	816.00	8160.00	
0114	Beldar	day	20.000	736.00	14720.00	
	Painting with oil preservative=10(5.00x1.1 + 2.0x0.25x0.30) = 10x(5.5 + 0.15) = 56.5 sqm @ 1 litre/10sqm = 5.65 litre					
0859	Oil type wood preservative	litre	5.650	130.00	734.5	
0131	Painter	day	0.800	816.00	652.8	
0115	Coolie	day	0.800	736.00	588.8	
9999	Sundries	L.S.	2.600	2.27	5.9	
9977	Carriage	L.S.	23.400	2.27	53.12	
9999	Brushes	L.S.	22.100	2.27	50.17	
9999	Making good the holes	L.S.	206.700	2.27	469.21	
9999	Sundries	L.S.	331.500	2.27	752.51	

Code	Description	Unit	Qty	Rate	Amount	
0302	Safeda ballies 125 mm diameter	metre	37.500	44.00	1650	
	Total				192390.81	W
	Add 1 % Water charges on “W”				1923.91	
	TOTAL				194314.72	X
	Add GST on “X” (multiplying factor 0.2127)				41330.74	
	TOTAL				235645.46	Y
	Add 15% CPOH on “Y”				35346.82	
	TOTAL				270992.28	Z
	Add Cess @ 1% on “Z”				2709.92	
	Cost of 3.75 cum				273702.20	
	Cost for 1 cum				72987.25	
	Say				72987.25	

14.17 Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	0.53	736.00	390.08	
0115	Coolie	day	0.08	736.00	58.88	
0101	Bhisti	day	0.07	816.00	57.12	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				509.33	W
	Add 1 % Water charges on “W”				5.09	
	TOTAL				514.42	X
	Add GST on “X” (multiplying factor 0.2127)				109.42	
	TOTAL				623.84	Y
	Add 15% CPOH on “Y”				93.58	
	TOTAL				717.42	Z
	Add Cess @ 1% on “Z”				7.17	
	Cost of 10.00 sqm				724.59	
	Cost of 1.00 sqm				72.46	
	Say				72.45	

14.18 Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska :

14.18.1 With F.P.S. brick tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.015	4379.05	65.69	
1213	Water proofing materials	kilogram	0.153	45.00	6.89	
	2% of wt. of cement					
	LABOUR					
0115	Coolie	day	0.36	736.00	264.96	
0124	Mason 2nd class	day	0.36	816.00	293.76	
0101	Bhisti	day	0.36	816.00	293.76	
9999	Sundries	L.S.	18.85	2.27	42.79	
	TOTAL				967.85	W

Code	Description	Unit	Qty	Rate	Amount	
	Add 1 % Water charges on “W”				9.68	
	TOTAL				977.53	X
	Add GST on “X” (multiplying factor 0.2127)				207.92	
	TOTAL				1185.45	Y
	Add 15% CPOH on “Y”				177.82	
	TOTAL				1363.27	Z
	Add Cess @ 1% on “Z”				13.63	
	Cost of 10.00 sqm				1376.90	
	Cost of 1.00 sqm				137.69	
	Say				137.70	

14.18.2 With modular brick tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.017	4379.05	74.44	
1213	Water proofing materials	kilogram	0.173	45.00	7.79	
	2% of wt. of cement					
	LABOUR					
0115	Coolie	day	0.36	736.00	264.96	
0124	Mason 2nd class	day	0.36	816.00	293.76	
0101	Bhisti	day	0.36	816.00	293.76	
9999	Sundries	L.S.	18.85	2.27	42.79	
	TOTAL				977.50	W
	Add 1 % Water charges on “W”				9.78	
	TOTAL				987.28	X
	Add GST on “X” (multiplying factor 0.2127)				209.99	
	TOTAL				1197.27	Y
	Add 15% CPOH on “Y”				179.59	
	TOTAL				1376.86	Z
	Add Cess @ 1% on “Z”				13.77	
	Cost of 10.00 sqm				1390.63	
	Cost of 1.00 sqm				139.06	
	Say				139.05	

14.19 Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 mtrs of weight 63 kgs					
	M.S. Flats 40x6mm @ 1.9kg./m = 30x1.9 = 57 kg. (A)					
	J’ hook bolts @ 30cm centre to centre = 101 Nos. x 0.15 m = 15.15 m @ 0.40kg./ m = 6.06kg (B)					
	Total (A+B) = 63.06 kg Say 63 kg					
	LABOUR					
0103	Blacksmith 2nd class	day	0.09	816.00	73.44	
0100	Bandhani	day	0.06	816.00	48.96	
0114	Beldar	day	0.16	736.00	117.76	
	TOTAL				240.16	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				2.40	
	TOTAL				242.56	X
	Add GST on “X” (multiplying factor 0.2127)				51.59	
	TOTAL				294.15	Y
	Add 15% CPOH on “Y”				44.12	
	TOTAL				338.27	Z
	Add Cess @ 1% on “Z”				3.38	
	Cost for 63 kg.				341.65	
	Cost of 1.00 kg				5.42	
	Say				5.40	

14.20 Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand & manufacturer over and including priming coat of ready mixed zinc chromate yellow primer of approved brand.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 20.2 m wind tie					
	MATERIAL					
1023	Galvanised steel J or L hooks 8 mm dia @ 30 cm center to center = 68 Nos	10 Nos	6.80	130.00	884.00	
1208	Bitumen washer	100 Nos	0.68	30.00	20.40	
1209	G.I. plain washer thick	100 Nos	0.68	35.00	23.80	
9977	Carriage of bolts, nuts and washers etc.	L.S.	1.17	2.27	2.66	
	LABOUR					
0102	Blacksmith 1st class	day	0.34	897.00	304.98	
0114	Beldar	day	0.34	736.00	250.24	
9999	Sundries	L.S.	13.91	2.27	31.58	
	Applying priming coat with ready mixed zink chromate yellow primer 20.2x2x(0.04+0.006) = 1.86 sqm					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.86	67.40	125.36	A
	Painting with ready mixed black antcorrosive bitumastic paint					
13.65.1	Rate as per item No.13.65.1 SH: Finishing	sqm	1.86	140.25	260.87	A
	TOTAL				1903.89	W
	Add 1 % Water charges on “W-A”				15.18	
	TOTAL				1919.07	X
	Add GST on “X-A” (multiplying factor 0.2127)				326.04	
	TOTAL				2245.11	Y
	Add 15% CPOH on “Y-A”				278.83	
	TOTAL				2523.94	Z
	Add Cess @ 1% on “Z-A”				21.38	
	Cost of 20.2 metres				2545.32	
	Cost of 1.00 metre				126.01	
	Say				126.00	

14.21 Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for gate of size 1.52x2.4 m (weight 11.55 kg)					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	M.S. Tee 40x40x6 mm Top rail = 1.725 m Bottom rail = 1.570 m Total = 3.295 m say 3.30 m @ 3.5 kg/m = 11.55 kg Add 10% wastage = 1.155 kg Total = 12.705 kg = 0.1270 q say 0.13 q					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.13	5965.00	775.45	
2205	Carriage of Steel	tonne	0.013	0.00	0.00	
15.12.2	Taking out collapsible gate including frame (Rate as per item no 15.12.2 of SH Dismantling and Demolishing)	each	1.00	502.75	502.75	A
	Refixing of collapsible gate including mending good the demaged floor, wall etc.frame Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.03	9311.40	279.34	A
3.6	Cement mortar 1 : 6 (1 cement : 6 fine sand) (Rate as per item No 3.6)	cum	0.01	3038.50	30.39	
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.18	2.27	54.89	
9999	Disposal of mulba	L.S.	1.82	2.27	4.13	
	Priming coat on Tees 0.16x3.3 = 0.53 sqm					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.53	67.40	35.72	A
	LABOUR					
	Labour for fixing the gate					
0155	Mason (average)	day	0.50	857.00	428.50	
0114	Beldar	day	0.75	736.00	552.00	
9999	Sundries	L.S.	2.60	2.27	5.90	
	TOTAL				2669.07	W
	Add 1 % Water charges on “W-A”				18.51	
	TOTAL				2687.58	X
	Add GST on “X-A” (multiplying factor 0.2127)				397.70	
	TOTAL				3085.28	Y
	Add 15% CPOH on “Y-A”				340.12	
	TOTAL				3425.40	Z
	Add Cess @ 1% on “Z-A”				26.08	
	Cost of 11.55 kg				3451.48	
	Cost of 1.00 kg				298.83	
	Say				298.85	

14.22 Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.

14.22.1 Wheel 50 mm dia and below

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos wheels of 40 mm dia. MATERIAL Weight of 10 nos wheels 10x[3.14x{(40/2)x(40/2)}x40]x0.0078 = 3.92 kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Weight of 10 nos clamps 6 mm thick =10x lenth of clamp =10x0.17m @ 1.90kg/m =3.23 kg Weight of 10 nos 10 mm dia. Bolts, 10 cm long 10x0.10m = 1m @ 0.618 kg/m = 0.62 kg. Total = 7.77 kg say 8 kg Labour for dismantling :					
0103	Blacksmith 2nd class	day	0.01	816.00	8.16	
0100	Bandhani	day	0.01	816.00	8.16	
0114	Beldar	day	0.02	736.00	14.72	
9999	Sundries	L.S.	0.39	2.27	0.89	
	Renewing the wheels with clamps :- MATERIAL					
7441	Wheel 40 mm dia. 40 mm wide	each	10.00	25.00	250.00	
1008	10 nos clamps out of M.S. flat 40x6 mm, 170 mm long = 10x0.17m = 1.70m @ 1.9 kg/m = 3.23 kg Add 5% wastage = 0.16 kg Total = 3.39 kg say 3.50 kg					
	Flats upto 10 mm in thickness	quintal	0.035	5450.00	190.75	
1034	M.S. bolt/pin 10 mm dia 10 cm long 10 Nos 10x0.06 = 0.6 kg = 0.006 q					
	Bolts and nuts upto 300 mm in length	quintal	0.006	5200.00	31.20	
1215	Welding by electric plant length = 10x(2x4) = 80cm	cm	80.00	2.50	200.00	
	LABOUR Labour for cutting, assembling and errection charges					
0102	Blacksmith 1st class	day	0.03	897.00	26.91	
0100	Bandhani	day	0.02	816.00	16.32	
0114	Beldar	day	0.110	736.00	80.96	
	Priming coat = 10x2(0.06+0.006)x0.17m = 0.22 sqm on (40x40x6) Tees = 0.172x3.30 = 0.57 sqm, Total = 0.79 sqm					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.79	67.40	53.25	A
9999	Sundries	L.S.	1.69	2.27	3.84	
	TOTAL				885.16	W
	Add 1 % Water charges on “W-A”				8.32	
	TOTAL				893.48	X
	Add GST on “X-A” (multiplying factor 0.2127)				178.72	
	TOTAL				1072.20	Y
	Add 15% CPOH on “Y-A”				152.84	
	TOTAL				1225.04	Z
	Add Cess @ 1% on “Z-A”				11.72	
	Cost of 10 nos wheels				1236.76	
	Cost per wheel				123.68	
	Say				123.70	

14.22.2 Wheel above 50 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos wheels Considering average wheel dia =75 mm Width of wheel = 40 mm M.S. flat for clamp = 60x8 mm Bolt size 16 mm dia. Lenth of one clamp : 2x(0.04+0.0375+0.02)+0.05 =0.195+0.05=0.245m say 0.25m MATERIAL Weight of 10 nos wheels 10x[3.14x{(7.5/2)x(7.5/2)}x4]x7.850/1000= 13.87 kg Weight of 10 nos clamps 8 mm thick =10x0.25 m @ 3.8kg/m = 9.50 kg Weight of 10 nos 16 mm dia. Bolts, 10 cm long 10x0.10 m @ 1.60 kg/m = 1.60 kg Total = 24.97 kg say 25 kg Labour for dismantling :					
0103	Blacksmith 2nd class	day	0.04	816.00	32.64	
0100	Bandhani	day	0.03	816.00	24.48	
0114	Beldar	day	0.06	736.00	44.16	
9999	Sundries	L.S.	1.04	2.27	2.36	
	Renewing the wheels with clamps :- MATERIAL					
7442	Wheel 75 mm dia. 40 mm wide	each	10	66.00	660.00	
1008	10 nos clamps out of M.S. flat 60x8 mm = 10x0.25 m @ 3.8 kg/m = 9.5 kg Add 5% wastage = 0.48 kg Total = 9.98 kg say 10 kg					
	Flats upto 10 mm in thickness	quintal	0.10	5450.00	545.00	
1034	M.S. bolt/pin 16 mm dia 10 cm long 10 Nos 10x0.16= 1.6 kg = 0.016 q					
	Bolts and nuts upto 300 mm in length	quintal	0.02	5200.00	83.20	
1215	Welding by electric plant length = 10x(2x6)	cm	120	2.50	300.00	
	LABOUR					
	Labour for cutting, assembling and errection charges					
0102	Blacksmith 1st class	day	0.10	897.00	89.70	
0100	Bandhani	day	0.05	816.00	40.80	
0114	Beldar	day	0.36	736.00	264.96	
13.50.3	Priming coat : = 10x2(0.06+0.008)x0.25m = 0.34 sqm on (40x40x6) Tees = 0.16x3.30 = 0.53 sqm, Total = 0.87 sqm					
	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.87	67.40	58.64	A
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				2158.04	W
	Add 1 % Water charges on “W-A”				20.99	
	TOTAL				2179.03	X
	Add GST on “X-A” (multiplying factor 0.2127)				451.01	
	TOTAL				2630.04	Y
	Add 15% CPOH on “Y-A”				385.71	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				3015.75	Z
	Add Cess @ 1% on “Z-A”				29.57	
	Cost of 10 nos wheels				3045.32	
	Cost per wheel				304.53	
	Say				304.55	

14.23 Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details for 10.91 kilolitre					
	Pumping hours 3 hrs. or 0.375 days					
0011	Hire charges of Pumpset of capacity 4000 litres/hour.	day	0.375	800.00	300.00	
0114	Beldar for clearing slush	day	2.00	736.00	1472.00	
	TOTAL				1772.00	W
	Add 1 % Water charges on “W”				17.72	
	TOTAL				1789.72	X
	Add GST on “X” (multiplying factor 0.2127)				380.67	
	TOTAL				2170.39	Y
	Add 15% CPOH on “Y”				325.56	
	TOTAL				2495.95	Z
	Add Cess @ 1% on “Z”				24.96	
	Cost of 10.91 kilolitre				2520.91	
	Cost of 1 kilolitre				231.06	
	Say				231.05	

14.25 Brick work with common burnt clay bricks of class designation 7.5 in mud mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	0.494	4724.00	2333.66	
	Mud mortar					
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.25	940.55	235.14	
2201	Carriage of Bricks	1000 Nos	0.494	0.00	0.00	
9999	Sundries	L.S.	2.73	2.27	6.20	
	LABOUR					
0123	Mason 1st class	day	0.36	897.00	322.92	
0124	Mason 2nd class	day	0.36	816.00	293.76	
0115	Coolie	day	1.37	736.00	1008.32	
0101	Bhisti	day	0.2	816.00	163.20	
	TOTAL				4363.20	W
	Add 1 % Water charges on “W”				43.63	
	TOTAL				4406.83	X
	Add GST on “X” (multiplying factor 0.2127)				937.33	
	TOTAL				5344.16	Y
	Add 15% CPOH on “Y”				801.62	
	TOTAL				6145.78	Z
	Add Cess @ 1% on “Z”				61.46	
	Cost of 1 Cum.				6207.24	
	Say				6207.25	

14.26 Providing and fixing 25 mm thick shutters for cup board etc. :

14.26.1 Panelled or panelled & glazed shutters :

14.26.1.1 Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm.					
	MATERIAL					
	Styles					
	4x200x8.0x2.5cm = 0.016 cum+					
	Rails					
	Top rail					
	1x110.5x8.0x2.5cm = 0.0022cum+					
	Lock and bottom rails					
	2x110.5x8.0x2.5 cm = 0.0044 cum					
	Panels					
	2x48x41x1.6cm = 0.006cum+					
	Sash bars					
	2x114x3.8x2.5cm = 0.0022cum+					
	6x48x3.8x2.5cm = 0.003 cum+					
	Beading					
	16x92x1.4x1.2cm = 0.002cum					
	Total = 0.0358 cum					
	Add for wastage @ 10% = 0.00336 cum.					
	Grand Total = 0.0394 cum = 39.40 cudm					
	say 39 cudm					
1186	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cudm	3.90	1100.00	4290.00	
2204	Carriage of Timber	cum	0.04	0.00	0.00	
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	0.99	321.00	317.79	
	Fittings-					
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide	metre	4.00	42.00	168.00	
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	42.00	50.40	
	LABOUR					
0111	Carpenter 1st class	day	2.40	897.00	2152.80	
0119	Glazier	day	0.18	816.00	146.88	
0114	Beldar	day	0.77	736.00	566.72	
9999	Sundries	L.S.	40.43	2.27	91.78	
	TOTAL				7784.37	W
	Add 1 % Water charges on “W”				77.84	
	TOTAL				7862.21	X
	Add GST on “X” (multiplying factor 0.2127)				1672.29	
	TOTAL				9534.50	Y
	Add 15% CPOH on “Y”				1430.18	
	TOTAL				10964.68	Z
	Add Cess @ 1% on “Z”				109.65	
	Cost of 2.16 sqm.				11074.33	
	Cost of 1 sqm.				5127.00	
	Say				5127.00	

14.26.1.2 Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for shutters of a cup-board (half glazed and half panelled) 200x108cm= 2.16 sqm.					
	MATERIAL					
	Styles					
	4x200x8.0x2.5cm = 0.016 cum+					
	Rails					
	Top rail					
	1x110.5x8.0x2.5cm = 0.0022cum+					
	Lock and bottom rail					
	2x110.5x8.0x2.5cm = 0.0044 cum.					
	Panels					
	2x48x41x1.6cm = 0.006cum+					
	Sash bars					
	2x114x3.8x2.5cm = 0.0022 cum+					
	6x48x3.8x2.5cm = 0.003 cum+					
	Beading					
	16x92x1.4x1.2cm = 0.002cum					
	Total = 0.0358					
	Add for wastage @ 10% = 0.0036 cum.					
	Grand Total = 0.0394 cum = 39.40 cudm					
	say 39 cudm					
1188	First class teak wood in planks	10 cudm	3.90	850.00	3315.00	
2204	Carriage of Timber	cum	0.04	0.00	0.00	
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	0.99	321.00	317.79	
	Fittings					
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide	metre	4.00	42.00	168.00	
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	42.00	50.40	
	LABOUR					
0111	Carpenter 1st class	day	2.40	897.00	2152.80	
0119	Glazier	day	0.18	816.00	146.88	
0114	Beldar	day	0.77	736.00	566.72	
9999	Sundries	L.S.	40.43	2.27	91.78	
	TOTAL				6809.37	W
	Add 1 % Water charges on “W”				68.09	
	TOTAL				6877.46	X
	Add GST on “X” (multiplying factor 0.2127)				1462.84	
	TOTAL				8340.30	Y
	Add 15% CPOH on “Y”				1251.05	
	TOTAL				9591.35	Z
	Add Cess @ 1% on “Z”				95.91	
	Cost of 2.16 sqm.				9687.26	
	Cost of 1 sqm.				4484.84	
	Say				4484.85	

14.26.2 Glazed shutters :

14.26.2.1 Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm.					
	MATERIAL					
	(i) Superior class teak wood					
	Styles : 4x200x9.5x2.5 cm = 0.019 cum					
	Rails					
	Top & intermediate rails					
	2x110.5x9.5x2.5 cm = 0.005 cum					
	Lock and bottom rails					
	2x110.5x19.7x2.5 cm = 0.011 cum					
	Beadings-					
	2x186.1x1.9x1.2cm = 0.001cum+					
	4x171.70x1.9x1.2cm = 0.002cum.					
	Total = 0.038 cum.					
	Add for wastage @ 10% = 0.0038 cum.					
	Grand Total = 0.0418 cum = 42 cudm					
1186	Superior class teak wood such as Dandeli,Balarshah or Malabar in planks	10 cudm	4.20	1100.00	4620.00	
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.27	321.00	407.67	
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide 75x45x3.2 mm	metre	4.00	42.00	168.00	
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	42.00	50.40	
0597	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm	10 Nos	0.20	49.00	9.80	
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	40.00	3.20	
2204	Carriage of Timber	cum	0.042	0.00	0.00	
	LABOUR					
0156	Carpenter (average)	day	1.83	857.00	1568.31	
0119	Glazier	day	0.23	816.00	187.68	
0114	Beldar	day	0.77	736.00	566.72	
9999	Sundries	L.S.	40.43	2.27	91.78	
	TOTAL				7673.56	W
	Add 1 % Water charges on “W”				76.74	
	TOTAL				7750.30	X
	Add GST on “X” (multiplying factor 0.2127)				1648.49	
	TOTAL				9398.79	Y
	Add 15% CPOH on “Y”				1409.82	
	TOTAL				10808.61	Z
	Add Cess @ 1% on “Z”				108.09	
	Cost of 2.16 sqm.				10916.70	
	Cost of 1 sqm.				5054.03	
	Say				5054.05	

14.26.2.2 Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm.					
	MATERIAL					
	(i) Teak wood first class					
	Styles : 4x200x9.5x2.5 cm = 0.019 cum					
	Rails					
	Top & intermediate rails					
	2x110.5x9.5x2.5 cm = 0.005 cum					
	Lock and bottom rails					
	2x110.5x19.7x2.5 cm = 0.011 cum					
	Beadings-					
	2x186.1x1.9x1.2cm = 0.001cum+					
	4x171.70x1.9x1.2cm = 0.002cum.					
	Total = 0.038 cum.					
	Add for wastage @ 10% = 0.0038 cum.					
	Grand Total = 0.0418 cum = 42 cudm					
1188	First class teak wood in planks	10 cudm	4.20	850.00	3570.00	
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.27	321.00	407.67	
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide 75x45x3.2 mm	metre	4.00	42.00	168.00	
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	42.00	50.40	
0597	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm	10 Nos	0.20	49.00	9.80	
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	40.00	3.20	
2204	Carriage of Timber	cum	0.042	0.00	0.00	
	LABOUR					
0156	Carpenter (average)	day	1.83	857.00	1568.31	
0119	Glazier	day	0.23	816.00	187.68	
0114	Beldar	day	0.77	736.00	566.72	
9999	Sundries	L.S.	40.43	2.27	91.78	
	TOTAL				6623.56	W
	Add 1 % Water charges on “W”				66.24	
	TOTAL				6689.80	X
	Add GST on “X” (multiplying factor 0.2127)				1422.92	
	TOTAL				8112.72	Y
	Add 15% CPOH on “Y”				1216.91	
	TOTAL				9329.63	Z
	Add Cess @ 1% on “Z”				93.30	
	Cost of 2.16 sqm.				9422.93	
	Cost of 1 sqm.				4362.47	
	Say				4362.45	

14.27 Providing and fixing plain jaffri door and window shutters including bright or/and black enamelled M.S. butt hinges with necessary screws 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with :

14.27.1 Second class teak wood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of a jaffri shutter 176x86 cm = 1.51 sqm					
	MATERIAL					
	Teak wood 2nd class					
	Styles 2x176x7.5x3.5 cm = 0.0092 cum					
	Rails 3x86x7.5x3.5 = 0.0068 cum					
	Total 0.0160 cum					
	Add wastage @ 10 % =0.0016 cum					
	Total = 0.0176 cum Say 18 cudm					
1190	Second class teak wood in planks	10 cudm	1.80	791.00	1423.80	
2204	Carriage of Timber	cum	0.018	0.00	0.00	
	Palain Jaffri work					
9.41.1	Rate as per Item Number 9.41.1 of SH:Wood and PVC work	sqm	1.51	2945.10	4447.10	A
0595	Bright finished or black enamelled mild steel butt hinges 100x58x1.90 mm	10 Nos	0.60	80.00	48.00	
0597	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm	10 Nos	0.20	49.00	9.80	
0637	Bright finished or black enamelled mild steel screws 40 mm	100 Nos	0.48	62.00	29.76	
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	40.00	3.20	
	LABOUR					
	For making frame and fixing fitting					
0112	Carpenter 2nd class	day	0.30	816.00	244.80	
	TOTAL				6206.46	W
	Add 1 % Water charges on “W-A”				17.59	
	TOTAL				6224.05	X
	Add GST on “X-A” (multiplying factor 0.2127)				377.96	
	TOTAL				6602.01	Y
	Add 15% CPOH on “Y-A”				323.24	
	TOTAL				6925.25	Z
	Add Cess @ 1% on “Z-A”				24.78	
	Cost of 1.51 sqm.				6950.03	
	Cost of 1 sqm.				4602.67	
	Say				4602.65	

14.28 Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete.

14.28.1 20 mm diameter.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 2 metre long					
	MATERIAL					
0444	Brass curtain rod 20 mm dia 1.25 mm thick	metre	2.00	154.00	308.00	
0446	Brass brackets (curtain rods) 20 mm	each	2.00	49.00	98.00	
9999	Screws	L.S.	2.73	2.27	6.20	
9977	Carriage	L.S.	1.56	2.27	3.54	
	Wooden plugs including cutting brick work and fixing in cement mortar					
8.23	Rate as per item no 9.32 of SH : Wood work	each	2.00	40.85	81.70	A
9999	LABOUR	L.S.	2.73	2.27	6.20	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	1.56	2.27	3.54	
	TOTAL				507.18	W
	Add 1 % Water charges on “W-A”				4.25	
	TOTAL				511.43	X
	Add GST on “X-A” (multiplying factor 0.2127)				91.40	
	TOTAL				602.83	Y
	Add 15% CPOH on “Y-A”				78.17	
	TOTAL				681.00	Z
	Add Cess @ 1% on “Z-A”				5.99	
	Cost of 2 metre				686.99	
	Cost of 1 metre				343.50	
	Say				343.50	

14.28.2 25 mm diameter.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 2 metre long					
	MATERIAL					
0445	Brass curtain rod 25 mm dia 1.25 mm thick	metre	2.00	209.00	418.00	
0446	Brass brackets (curtain rods) 20 mm	each	2.00	49.00	98.00	
9999	Screws	L.S.	2.73	2.27	6.20	
9977	Carriage	L.S.	1.56	2.27	3.54	
	Wooden plugs including cutting brick work and fixing in cement mortar					
8.23	Rate as per item no 9.32 of SH : Wood work	each	2.00	40.85	81.70	A
9999	LABOUR	L.S.	2.73	2.27	6.20	
9999	Sundries	L.S.	1.56	2.27	3.54	
	TOTAL				617.18	W
	Add 1 % Water charges on “W-A”				5.35	
	TOTAL				622.53	X
	Add GST on “X-A” (multiplying factor 0.2127)				115.03	
	TOTAL				737.56	Y
	Add 15% CPOH on “Y-A”				98.38	
	TOTAL				835.94	Z
	Add Cess @ 1% on “Z-A”				7.54	
	Cost of 2 metres				843.48	
	Cost of 1 metre				421.74	
	Say				421.75	

14.29 Providing and fixing M.S. round or square bars with M.S. flats at required spacing in wooden frames of windows and clerestory windows.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 33.67 kg					
	Details of cost for window -140x110cm					
	MATERIAL					
	M.S. bar 16 mm dia 13x136 cm = 17.68 m @ 1.58 kg/m = 27.93 kg					
	Add for wastage @ 10% =2.79 kg					
	Total = 30.72 kg or 0.307 q					
1003	Mild steel round bar above 12 mm dia	quintal	0.307	5450.00	1673.15	
	M.S. flat 40x6mm 2x96cm = 192cm+					
	1x110cm = 110cm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	= 302cm+					
	Add wastage @ 10% = 30cm					
	Total = 332cm.@ 1.90 kg/m = 6.31 kg					
	Say 0.063 q					
1008	Flats upto 10 mm in thickness	quintal	0.063	5450.00	343.35	
2205	Carriage of Steel	tonne	0.037	0.00	0.00	
	(0.307+0.063 = 0.37 q = 0.037 t)					
9999	Sundries	L.S.	26.91	2.27	61.09	
	LABOUR					
0103	Blacksmith 2nd class	day	0.35	816.00	285.60	
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.45	736.00	331.20	
	TOTAL				2857.59	W
	Add 1 % Water charges on “W”				28.58	
	TOTAL				2886.17	X
	Add GST on “X” (multiplying factor 0.2127)				613.89	
	TOTAL				3500.06	Y
	Add 15% CPOH on “Y”				525.01	
	TOTAL				4025.07	Z
	Add Cess @ 1% on “Z”				40.25	
	Cost of 33.67 kg.(5.74+27.93=33.67kg)				4065.32	
	Cost of 1 kg.				120.74	
	Say				120.75	

14.30 Providing joists (karries) including hoisting, fixing in position and applying wood preservative on unexposed surface etc. complete with :

14.30.1 Sal wood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 300cudm.					
	MATERIAL					
	Sal wood					
	10x0.1mx0.1mx3.0m = 0.30 cum. Or = 300 cudm					
	Add wastage @ 2% = 6.00 cudm.					
	Total = 306 cudm.					
1199	Sal wood in scantling	10 cudm	30.60	600.00	18360.00	
2204	Carriage of Timber	cum	0.306	0.00	0.00	
	LABOUR					
0112	Carpenter 2nd class	day	0.70	816.00	571.20	
0114	Beldar	day	1.45	736.00	1067.20	
0100	Bandhani	day	0.70	816.00	571.20	
	Priming coat (Wood preservative)					
13.57.1	Rate as per item no 13.57.1 SH : Finishing	sqm	0.80	54.40	43.52	A
9999	Sundries	L.S.	26.91	2.27	61.09	
	TOTAL				20674.21	W
	Add 1 % Water charges on “W-A”				206.31	
	TOTAL				20880.52	X
	Add GST on “X-A” (multiplying factor 0.2127)				4432.03	
	TOTAL				25312.55	Y
	Add 15% CPOH on “Y-A”				3790.35	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				29102.90	Z
	Add Cess @ 1% on "Z-A"				290.59	
	Cost of 300 cudm.				29393.49	
	Cost of 1 cum.				97978.30	
	Say				97978.30	

14.30.2 Hollock wood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 300cudm.					
	MATERIAL					
	Hollock wood in scantling					
	10x0.1mx0.1mx3.0m = 0.30 cum. Or = 300 cudm					
	Add wastage @ 2% = 6.00 cudm.					
	Total = 306 cudm.					
2466	Hollock wood in scantling	10 cudm	30.60	366.00	11199.60	
2204	Carriage of Timber	cum	0.306	0.00	0.00	
	LABOUR					
0112	Carpenter 2nd class	day	0.70	816.00	571.20	
0114	Beldar	day	1.45	736.00	1067.20	
0100	Bandhani	day	0.70	816.00	571.20	
	Priming coat (Wood preservative)					
13.57.1	Rate as per item no 13.57.1 SH : Finishing	sqm	0.80	54.40	43.52	A
9999	Sundries	L.S.	26.91	2.27	61.09	
	TOTAL				13513.81	W
	Add 1 % Water charges on "W-A"				134.70	
	TOTAL				13648.51	X
	Add GST on "X-A" (multiplying factor 0.2127)				2893.78	
	TOTAL				16542.29	Y
	Add 15% CPOH on "Y-A"				2474.82	
	TOTAL				19017.11	Z
	Add Cess @ 1% on "Z-A"				189.74	
	Cost of 300 cudm.				19206.85	
	Cost of 1 cum.				64022.83	
	Say				64022.85	

14.31 Providing and fixing bright finished brass single acting spring hinges with necessary brass screws etc. complete :

14.31.1 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0389	Brass single acting spring hinges 150 mm	each	10.00	467.00	4670.00	
0449	Brass screws 50 mm	100 Nos	0.80	242.00	193.60	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				5377.86	W
	Add 1 % Water charges on "W"				53.78	
	TOTAL				5431.64	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				1155.31	
	TOTAL				6586.95	Y
	Add 15% CPOH on “Y”				988.04	
	TOTAL				7574.99	Z
	Add Cess @ 1% on “Z”				75.75	
	Cost of 10 hinges				7650.74	
	Cost of each				765.07	
	Say				765.05	

14.31.2 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0390	Brass single acting spring hinges 125 mm	each	10.00	313.00	3130.00	
0449	Brass screws 50 mm	100 Nos	0.80	242.00	193.60	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				3837.86	W
	Add 1 % Water charges on “W”				38.38	
	TOTAL				3876.24	X
	Add GST on “X” (multiplying factor 0.2127)				824.48	
	TOTAL				4700.72	Y
	Add 15% CPOH on “Y”				705.11	
	TOTAL				5405.83	Z
	Add Cess @ 1% on “Z”				54.06	
	Cost of 10 hinges				5459.89	
	Cost of each				545.99	
	Say				546.00	

14.31.3 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0391	Brass single acting spring hinges 100 mm	each	10.00	275.00	2750.00	
0450	Brass screws 40 mm	100 Nos	0.80	187.00	149.60	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				3413.86	W
	Add 1 % Water charges on “W”				34.14	
	TOTAL				3448.00	X
	Add GST on “X” (multiplying factor 0.2127)				733.39	
	TOTAL				4181.39	Y
	Add 15% CPOH on “Y”				627.21	
	TOTAL				4808.60	Z
	Add Cess @ 1% on “Z”				48.09	
	Cost of 10 hinges				4856.69	
	Cost of each				485.67	
	Say				485.65	

14.32 Providing and fixing bright finished brass double acting spring hinges with necessary brass screws etc. complete :

14.32.1 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0392	Brass double acting spring hinges 150 mm	each	10.00	528.00	5280.00	
0449	Brass screws 50 mm	100 Nos	0.80	242.00	193.60	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				5987.86	W
	Add 1 % Water charges on “W”				59.88	
	TOTAL				6047.74	X
	Add GST on “X” (multiplying factor 0.2127)				1286.35	
	TOTAL				7334.09	Y
	Add 15% CPOH on “Y”				1100.11	
	TOTAL				8434.20	Z
	Add Cess @ 1% on “Z”				84.34	
	Cost of 10 hinges				8518.54	
	Cost of each				851.85	
	Say				851.85	

14.32.2 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0393	Brass double acting spring hinges 125 mm	each	10.00	440.00	4400.00	
0449	Brass screws 50 mm	100 Nos	0.80	242.00	193.60	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				5107.86	W
	Add 1 % Water charges on “W”				51.08	
	TOTAL				5158.94	X
	Add GST on “X” (multiplying factor 0.2127)				1097.31	
	TOTAL				6256.25	Y
	Add 15% CPOH on “Y”				938.44	
	TOTAL				7194.69	Z
	Add Cess @ 1% on “Z”				71.95	
	Cost of 10 hinges				7266.64	
	Cost of each				726.66	
	Say				726.65	

14.32.3 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0394	Brass double acting spring hinges 100 mm	each	10.00	429.00	4290.00	
0450	Brass screws 40 mm	100 Nos	0.80	187.00	149.60	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				4953.86	W
	Add 1 % Water charges on “W”				49.54	
	TOTAL				5003.40	X
	Add GST on “X” (multiplying factor 0.2127)				1064.22	
	TOTAL				6067.62	Y
	Add 15% CPOH on “Y”				910.14	
	TOTAL				6977.76	Z
	Add Cess @ 1% on “Z”				69.78	
	Cost of 10 hinges				7047.54	
	Cost of each				704.75	
	Say				704.75	

14.33 Providing and fixing bright finished brass flush bolts with necessary brass screws etc. complete :

14.33.1 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0404	Brass flush bolt 250 mm	each	10.00	175.00	1750.00	
0452	Brass screws 25 mm	100 Nos	0.60	110.00	66.00	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	Day	0.20	897.00	179.40	
	TOTAL				2003.66	W
	Add 1 % Water charges on “W”				20.04	
	TOTAL				2023.70	X
	Add GST on “X” (multiplying factor 0.2127)				430.44	
	TOTAL				2454.14	Y
	Add 15% CPOH on “Y”				368.12	
	TOTAL				2822.26	Z
	Add Cess @ 1% on “Z”				28.22	
	Cost of 10 hinges				2850.48	
	Cost of each				285.05	
	Say				285.05	

14.33.2 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0405	Brass flush bolt 150 mm	each	10.00	150.00	1500.00	
0452	Brass screws 25 mm	100 Nos	0.60	110.00	66.00	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0111	Carpenter 1st class	day	0.17	897.00	152.49	
	TOTAL				1724.69	W
	Add 1 % Water charges on “W”				17.25	
	TOTAL				1741.94	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				370.51	
	TOTAL				2112.45	Y
	Add 15% CPOH on "Y"				316.87	
	TOTAL				2429.32	Z
	Add Cess @ 1% on "Z"				24.29	
	Cost of 10 hinges				2453.61	
	Cost of each				245.36	
	Say				245.35	

14.33.3 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0406	Brass flush bolt 100 mm	each	10.00	110.00	1100.00	
0452	Brass screws 25 mm	100 Nos	0.60	110.00	66.00	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0111	Carpenter 1st class	day	0.17	897.00	152.49	
	TOTAL				1324.69	W
	Add 1 % Water charges on "W"				13.25	
	TOTAL				1337.94	X
	Add GST on "X" (multiplying factor 0.2127)				284.58	
	TOTAL				1622.52	Y
	Add 15% CPOH on "Y"				243.38	
	TOTAL				1865.90	Z
	Add Cess @ 1% on "Z"				18.66	
	Cost of 10 hinges				1884.56	
	Cost of each				188.46	
	Say				188.45	

14.34 Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0417	Brass 150 mm floor door stopper (0.357kg)	each	10.00	175.00	1750.00	
0450	Brass screws 40 mm	100 Nos	0.40	187.00	74.80	
9977	Carriage of material	L.S.	2.73	2.27	6.20	
	LABOUR					
0111	Carpenter 1st class	day	0.07	897.00	62.79	
9999	Sundries (wooden plugs including fixing in the floor)	L.S.	6.37	2.27	14.46	
	TOTAL				1908.25	W
	Add 1 % Water charges on "W"				19.08	
	TOTAL				1927.33	X
	Add GST on "X" (multiplying factor 0.2127)				409.94	
	TOTAL				2337.27	Y
	Add 15% CPOH on "Y"				350.59	
	TOTAL				2687.86	Z
	Add Cess @ 1% on "Z"				26.88	
	Cost of 10 Nos				2714.74	
	Cost of each				271.47	
	Say				271.45	

14.35 Providing and fixing bright finished brass hard drawn hooks and eyes :

14.35.1 300 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0418	Brass hard drawn hooks and eyes 300 mm	10 Nos	1.00	660.00	660.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
	TOTAL				715.89	W
	Add 1 % Water charges on “W”				7.16	
	TOTAL				723.05	X
	Add GST on “X” (multiplying factor 0.2127)				153.79	
	TOTAL				876.84	Y
	Add 15% CPOH on “Y”				131.53	
	TOTAL				1008.37	Z
	Add Cess @ 1% on “Z”				10.08	
	Cost of 10 Nos				1018.45	
	Cost of each				101.85	
	Say				101.85	

14.35.2 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0419	Brass hard drawn hooks and eyes 250 mm	10 Nos	1.00	631.00	631.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
	TOTAL				686.89	W
	Add 1 % Water charges on “W”				6.87	
	TOTAL				693.76	X
	Add GST on “X” (multiplying factor 0.2127)				147.56	
	TOTAL				841.32	Y
	Add 15% CPOH on “Y”				126.20	
	TOTAL				967.52	Z
	Add Cess @ 1% on “Z”				9.68	
	Cost of 10 hooks and eyes				977.20	
	Cost of 1 hook and eye				97.72	
	Say				97.70	

14.35.3 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0420	Brass hard drawn hooks and eyes 200 mm	10 Nos	1.00	561.00	561.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
	TOTAL				616.89	W
	Add 1 % Water charges on “W”				6.17	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				623.06	X
	Add GST on “X” (multiplying factor 0.2127)				132.52	
	TOTAL				755.58	Y
	Add 15% CPOH on “Y”				113.34	
	TOTAL				868.92	Z
	Add Cess @ 1% on “Z”				8.69	
	Cost of 10 Nos				877.61	
	Cost of each				87.76	
	Say				87.75	

14.35.4 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0421	Brass hard drawn hooks and eyes 150 mm	10 Nos	1.00	440.00	440.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
	TOTAL				495.89	W
	Add 1 % Water charges on “W”				4.96	
	TOTAL				500.85	X
	Add GST on “X” (multiplying factor 0.2127)				106.53	
	TOTAL				607.38	Y
	Add 15% CPOH on “Y”				91.11	
	TOTAL				698.49	Z
	Add Cess @ 1% on “Z”				6.98	
	Cost of 10 Nos				705.47	
	Cost of each				70.55	
	Say				70.55	

14.35.5 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0422	Brass hard drawn hooks and eyes 100 mm	10 Nos	1.00	379.00	379.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
	TOTAL				434.89	W
	Add 1 % Water charges on “W”				4.35	
	TOTAL				439.24	X
	Add GST on “X” (multiplying factor 0.2127)				93.43	
	TOTAL				532.67	Y
	Add 15% CPOH on “Y”				79.90	
	TOTAL				612.57	Z
	Add Cess @ 1% on “Z”				6.13	
	Cost of 10 Nos				618.70	
	Cost of each				61.87	
	Say				61.85	

14.36 Providing and fixing bright finished brass fan light pivot with necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0429	Brass fanlight pivot	10 Nos	1.00	184.00	184.00	
0450	Brass screws 40 mm	100 Nos	0.40	187.00	74.80	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.08	897.00	71.76	
	TOTAL				332.63	W
	Add 1 % Water charges on “W”				3.33	
	TOTAL				335.96	X
	Add GST on “X” (multiplying factor 0.2127)				71.46	
	TOTAL				407.42	Y
	Add 15% CPOH on “Y”				61.11	
	TOTAL				468.53	Z
	Add Cess @ 1% on “Z”				4.69	
	Cost of 10 Nos				473.22	
	Cost of each				47.32	
	Say				47.30	

14.37 Providing and fixing 300 mm long bright finished brass chain with hook for fan light including necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0430	Brass chain with hook for fan light catch	each	10.00	39.00	390.00	
0452	Brass screws 25 mm	100 Nos	0.40	110.00	44.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.10	897.00	89.70	
	TOTAL				525.77	W
	Add 1 % Water charges on “W”				5.26	
	TOTAL				531.03	X
	Add GST on “X” (multiplying factor 0.2127)				112.95	
	TOTAL				643.98	Y
	Add 15% CPOH on “Y”				96.60	
	TOTAL				740.58	Z
	Add Cess @ 1% on “Z”				7.41	
	Cost of 10 Nos				747.99	
	Cost of each				74.80	
	Say				74.80	

14.38 Providing and fixing bright finished brass quadrant stay 300 mm long with necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0427	Brass quadrant stays 300 mm	each	10.00	121.00	1210.00	
0452	Brass screws 25 mm	100 Nos	0.40	110.00	44.00	
9977	Carriage of material	L.S.	0.91	2.27	2.07	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0111	Carpenter 1st class	day	0.10	897.00	89.70	
	TOTAL				1345.77	W
	Add 1 % Water charges on “W”				13.46	
	TOTAL				1359.23	X
	Add GST on “X” (multiplying factor 0.2127)				289.11	
	TOTAL				1648.34	Y
	Add 15% CPOH on “Y”				247.25	
	TOTAL				1895.59	Z
	Add Cess @ 1% on “Z”				18.96	
	Cost of 10 quadrant stayes				1914.55	
	Cost of each				191.46	
	Say				191.45	

14.39 Providing and fixing bright finished brass helical door spring (superior quality).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0442	Brass helical spring 150 mm	each	10.00	319.00	3190.00	
0449	Brass screws 50 mm	100 Nos	0.40	242.00	96.80	
0452	Brass screws 25 mm	100 Nos	0.20	110.00	22.00	
9977	Carriage of material	L.S.	3.84	2.27	8.72	
	LABOUR					
0111	Carpenter 1st class	day	0.40	897.00	358.80	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				3823.52	W
	Add 1 % Water charges on “W”				38.24	
	TOTAL				3861.76	X
	Add GST on “X” (multiplying factor 0.2127)				821.40	
	TOTAL				4683.16	Y
	Add 15% CPOH on “Y”				702.47	
	TOTAL				5385.63	Z
	Add Cess @ 1% on “Z”				53.86	
	Cost of 10 Nos				5439.49	
	Cost of each				543.95	
	Say				543.95	

14.40 Providing and fixing chromium plated brass butt hinges with necessary chromium plated brass screws etc. complete.

14.40.1 125x70x4 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0525	Chromium plated Brass butt hinges (light/ ordinary) type 125x70x4 mm	10 Nos	1.00	720.00	720.00	
0585	Chromium plated Brass screws 50 mm	100 Nos	1.00	275.00	275.00	
9977	Carriage of material	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.14	897.00	125.58	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				1202.44	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				12.02	
	TOTAL				1214.46	X
	Add GST on “X” (multiplying factor 0.2127)				258.32	
	TOTAL				1472.78	Y
	Add 15% CPOH on “Y”				220.92	
	TOTAL				1693.70	Z
	Add Cess @ 1% on “Z”				16.94	
	Cost of 10 nos.				1710.64	
	Cost of each				171.06	
	Say				171.05	

14.40.2 100x70x4 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0526	Chromium plated Brass butt hinges (light/ ordinary) type 100x70x4 mm	10 Nos	1.00	635.00	635.00	
0586	Chromium plated Brass screws 40 mm	100 Nos	0.80	254.00	203.20	
9977	Carriage of material	L.S.	3.64	2.27	8.26	
	LABOUR					
0111	Carpenter 1st class	day	0.14	897.00	125.58	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				1045.64	W
	Add 1 % Water charges on “W”				10.46	
	TOTAL				1056.10	X
	Add GST on “X” (multiplying factor 0.2127)				224.63	
	TOTAL				1280.73	Y
	Add 15% CPOH on “Y”				192.11	
	TOTAL				1472.84	Z
	Add Cess @ 1% on “Z”				14.73	
	Cost of 10 nos.				1487.57	
	Cost of each				148.76	
	Say				148.75	

14.40.3 75x65x4 mm (heavy type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0524	Chromium plated Brass butt hinges (heavy) type 75x65x4 .0 mm (200gms)	10 Nos	1.00	932.00	932.00	
0587	Chromium plated Brass screws 30 mm	100 Nos	0.60	228.00	136.80	
9977	Carriage of material	L.S.	1.82	2.27	4.13	
	LABOUR					
0111	Carpenter 1st class	day	0.14	897.00	125.58	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				1272.11	W
	Add 1 % Water charges on “W”				12.72	
	TOTAL				1284.83	X
	Add GST on “X” (multiplying factor 0.2127)				273.28	
	TOTAL				1558.11	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on “Y”				233.72	
	TOTAL				1791.83	Z
	Add Cess @ 1% on “Z”				17.92	
	Cost of 10 nos.				1809.75	
	Cost of each				180.98	
	Say				181.00	

14.40.4 75x40x2.5 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0527	Chromium plated Brass butt hinges (light/ ordinary) type 75x40x2.5 mm	10 Nos	1.00	381.00	381.00	
0587	Chromium plated Brass screws 30 mm	100 Nos	0.60	228.00	136.80	
9977	Carriage of material	L.S.	1.82	2.27	4.13	
	LABOUR					
0111	Carpenter 1st class	day	0.14	897.00	125.58	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				721.11	W
	Add 1 % Water charges on “W”				7.21	
	TOTAL				728.32	X
	Add GST on “X” (multiplying factor 0.2127)				154.91	
	TOTAL				883.23	Y
	Add 15% CPOH on “Y”				132.48	
	TOTAL				1015.71	Z
	Add Cess @ 1% on “Z”				10.16	
	Cost of 10 nos.				1025.87	
	Cost of each				102.59	
	Say				102.60	

14.40.5 50x40x2.5 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0528	Chromium plated Brass butt hinges (light/ ordinary) type 50x40x2.5 mm	10 Nos	1.00	200.00	200.00	
0589	Chromium plated Brass screws 20 mm	100 Nos	0.40	152.00	60.80	
9977	Carriage of material	L.S.	0.91	2.27	2.07	
	LABOUR					
0111	Carpenter 1st class	day	0.08	897.00	71.76	
	TOTAL				334.63	W
	Add 1 % Water charges on “W”				3.35	
	TOTAL				337.98	X
	Add GST on “X” (multiplying factor 0.2127)				71.89	
	TOTAL				409.87	Y
	Add 15% CPOH on “Y”				61.48	
	TOTAL				471.35	Z
	Add Cess @ 1% on “Z”				4.71	
	Cost of 10 nos.				476.06	
	Cost of each				47.61	
	Say				47.60	

14.41 Providing and fixing 85x42 mm chromium plated brass pull bolt lock with necessary chromium plated brass screws, nuts, bolts and washers etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos					
	MATERIAL					
2467	Chromium plated Brass pull bolt lock (locking bolt) of size 85 mmx42 mm with screws,bolts,nuts and washers complete	each	10.00	174.00	1740.00	
9988	Carriage of materials & sundries	L.S.	6.37	2.27	14.46	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	816.00	204.00	
	TOTAL				1958.46	W
	Add 1 % Water charges on “W”				19.58	
	TOTAL				1978.04	X
	Add GST on “X” (multiplying factor 0.2127)				420.73	
	TOTAL				2398.77	Y
	Add 15% CPOH on “Y”				359.82	
	TOTAL				2758.59	Z
	Add Cess @ 1% on “Z”				27.59	
	Cost of 10 nos.				2786.18	
	Cost of each				278.62	
	Say				278.60	

14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.
Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for area 22.5m x 9.0m =202.5 sqm					
14.72X	Rate as per Item No.14.72X of SH:Repairs to Buildings	each	1.00	9081.00	9081.00	
2205	Carriage of Steel	tonne	6.054	0.00	0.00	
	40mm dia MS pipe = 3765.42 kg					
	25mm spigot = 123.98 kg					
	Nuts & bolts = 37.80 kg					
	Clamp = 120 nos @ 1.00kg each = 120.00 kg					
	Challies = 90 nos @ 15.00kg each					
	= 1350.00 kg					
	Cup locks = 1314 nos @ 0.50kg each					
	= 657.00 kg					
	Total = 6054.20 kg = 6.054 tonne					
	LABOUR					
0116	Fitter (grade 1)	day	15.50	897.00	13903.50	
0114	Beldar	day	31.00	736.00	22816.00	
9999	Sundries	L.S.	1035	2.27	2349.45	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				48149.95	W
	Add 1 % Water charges on “W”				481.50	
	TOTAL				48631.45	X
	Add GST on “X” (multiplying factor 0.2127)				10343.91	
	TOTAL				58975.36	Y
	Add 15% CPOH on “Y”				8846.30	
	TOTAL				67821.66	Z
	Add Cess @ 1% on “Z”				678.22	
	Cost of 202.50 sqm.				68499.88	
	Cost of 1 sqm.				338.27	
	Say				338.25	

14.72X Scaffolding

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for area 22.5 x 9.0= 202.50 sqm					
	MATERIAL					
	Assuming shuttering material will become unserviceable after use of 40 times					
7397	Base jack	each	14.00	155.00	2170.00	
	7x2=14 nos					
4009	Mild steel tubes hot finished welded type	kilogram	3765.42	72.00	271110.24	
	40mm dia M.S. Tube					
	Vertical standard 2.5m length					
	= 7x2x9x2.5 = 315.00 m					
	Bracing ledder 1.5m length = 7x2x9x4.0873 = 513.00 m					
	Side support 6.00m length = 3x2x6.00= 36.00 m					
	Horizontal support 3.00m length = 18x3x3.00 = 162.00 m					
	Total = 1026.00m @ 3.67 kg/m = 3765.42 kg					
7387	Spigot for standard jointing	kg	123.98	44.00	5455.12	
	7x2x9 = 126 nos x 0.40m length = 50.40m					
	50.40m @ 2.46kg/m = 123.98kg					
1034	Bolts and nuts upto 300 mm in length	quintal	0.378	5200.00	1965.60	
	2x7x2x9 = 252 nos @ 0.15 kg each					
	= 37.80 kg = 0.378 q					
7346	Double coupler	each	120.00	49.00	5880.00	
	2x3x2 + 2x18x3 = 120 nos					
7398	Challies	each	90.00	834.00	75060.00	
	3 nos x 18 lines = 54 nos					
	Two level plate challies = 2x 18 lines = 36 nos, Total = 90 nos					
7399	Cup lock	each	1314.00	50.00	65700.00	
	Vertical standards 5x7x2x9 = 630.00 Nos.					
	2x18x19 = 684 Nos.					
	Total =1314 Nos.					
	TOTAL				427340.96	P
	Add 10% for maintenance on P				42734.10	Q
	Less 25% salvage value on P				-106835.24	R
	TOTAL (P+Q+R)				363239.82	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Considering that scaffolding shall be unserviceable after using 40 times cost of using once				9081.00	
	Say				9081.00	

14.73 Providing and fixing bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos (10 x 0.20 = 2.00 kg)					
	MATERIAL					
0423	Brass casement window fastener	each	10.00	49.00	490.00	
9999	Fixing charges including welding and materials etc.	L.S.	125.58	2.27	285.07	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	TOTAL				783.33	W
	Add 1 % Water charges on “W”				7.83	
	TOTAL				791.16	X
	Add GST on “X” (multiplying factor 0.2127)				168.28	
	TOTAL				959.44	Y
	Add 15% CPOH on “Y”				143.92	
	TOTAL				1103.36	Z
	Add Cess @ 1% on “Z”				11.03	
	Cost of 2.00kg window fasteners				1114.39	
	Cost of 1 kg window fastener				557.20	
	Say				557.20	

14.74 Providing and fixing 14 mm bright finished brass spring catch to steel centre hung ventilators with necessary welding and machine screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos					
	MATERIAL					
0428	Brass fanlight catch	10 Nos	1.00	187.00	187.00	
9999	Fixing charges including welding and materials etc.	L.S.	125.58	2.27	285.07	
9977	Carriage of materials	L.S.	3.64	2.27	8.26	
	TOTAL				480.33	W
	Add 1 % Water charges on “W”				4.80	
	TOTAL				485.13	X
	Add GST on “X” (multiplying factor 0.2127)				103.19	
	TOTAL				588.32	Y
	Add 15% CPOH on “Y”				88.25	
	TOTAL				676.57	Z
	Add Cess @ 1% on “Z”				6.77	
	Cost of 10 window fasteners				683.34	
	Cost of each				68.33	
	Say				68.35	

14.75 Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	MATERIAL					
0772	White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	125.00	18.00	2250.00	
9977	Carriage of white cement based polymer modified self curing compound in powder form	L.S.	21.10	2.27	47.90	
	LABOUR					
0155	Mason (average)	day	1.21	857.00	1036.97	
0114	Beldar	day	0.54	736.00	397.44	
0115	Coolie	day	1.29	736.00	949.44	
9999	Scaffolding and sunderies	L.S.	15.21	2.27	34.53	
	TOTAL				4716.28	W
	Add 1 % Water charges on “W”				47.16	
	TOTAL				4763.44	X
	Add GST on “X” (multiplying factor 0.2127)				1013.18	
	TOTAL				5776.62	Y
	Add 15% CPOH on “Y”				866.49	
	TOTAL				6643.11	Z
	Add Cess @ 1% on “Z”				66.43	
	Cost of 10 sqm				6709.54	
	Cost of 1 sqm				670.95	
	Say				670.95	

14.75A Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ ₹ 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 tanks					
	1 tank is of 500 litres capacity i.e. 5000 litres					
	MATERIAL					
1301	Bleaching powder	quintal	0.025	1700.00	42.50	
2264	Carriage of Rubbish	cum	0.25	185.55	46.39	
	(asuming 0.040m depth of silt)					
9999	Marking with paint i/c removal of existing markings	L.S.	30.00	2.27	68.10	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter for opening ball cock wheel valve and other fittings	day	1.00	816.00	816.00	
0114	Beldar for cleaning disinfecting etc	day	1.00	736.00	736.00	
	TOTAL				1708.99	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				17.09	
	TOTAL				1726.08	X
	Add GST on "X" (multiplying factor 0.2127)				367.14	
	TOTAL				2093.22	Y
	Add 15% CPOH on "Y"				313.98	
	TOTAL				2407.20	Z
	Add Cess @ 1% on "Z"				24.07	
	Cost of 5000 litre				2431.27	
	Cost of 1 litre				0.49	
	Say				0.50	

14.76 Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos.					
	LABOUR					
0129	Sewerman	day	1.00	736.00	736.00	
9999	T & P Bamboo, bucket, whell barrow etc.	L.S.	11.20	2.27	25.42	
	TOTAL				761.42	W
	Add 1 % Water charges on "W"				7.61	
	TOTAL				769.03	X
	Add GST on "X" (multiplying factor 0.2127)				163.57	
	TOTAL				932.60	Y
	Add 15% CPOH on "Y"				139.89	
	TOTAL				1072.49	Z
	Add Cess @ 1% on "Z"				10.72	
	Cost of 10 nos				1083.21	
	Cost of each				108.32	
	Say				108.30	

14.77 Cleaning of chocked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 208 metre					
	MATERIAL					
9999	Soap, brush, cloths & sundries	L.S.	345.00	2.27	783.15	
8500	Water for jetting / blowback	1000 litre	0.002	1450.00	2.90	
	Machineries					
0087	Hire Charges of Suction Jeting machine 2200 PSI machine i/c POL and operator	day	1.00	44800.00	44800.00	
	LABOUR					
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	816.00	3264.00	
0160	Technician	day	1.00	973.00	973.00	
	TOTAL				49823.05	W
	Add 1 % Water charges on "W"				498.23	
	TOTAL				50321.28	X
	Add GST on "X" (multiplying factor 0.2127)				10703.34	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				61024.62	Y
	Add 15% CPOH on "Y"				9153.69	
	TOTAL				70178.31	Z
	Add Cess @ 1% on "Z"				701.78	
	Cost of 208 metre				70880.09	
	Cost of 1.00 metre				340.77	
	Say				340.75	

14.78 Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:-

(i)Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits.

(ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water.

(iii) Chlorination of RCC internal surface by liquid chlorine.

(iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface.

(v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Let a underground tank of capacity 272000 litre or 272 KL and area of tank is 570sqm					
	(a) Dewater and slit cleaning					
	Considering through pumping 20% of water to be lifted, water discharge =(272 x 20/100=54.40KL)					
	Cost of pumping water with pump of capacity 4000 litres per hours , = (54.4/4 =13.6 hours = @ 8 hours/ day = 1.7 day)					
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	1.70	800.00	1360.00	
0114	Beldar	day	10.88	736.00	8007.68	
	(b) Scrabing the internal surface of tank					
0114	Beldar	day	5.13	736.00	3775.68	
0115	Coolie	day	2.28	736.00	1678.08	
0101	Bhisti	day	2.28	816.00	1860.48	
9999	Sundries	L.S.	142.50	2.27	323.48	
	(c) Bleaching					
1301	Bleaching powder	quintal	0.57	1700.00	969.00	
0006	Hire charges of Spraying machine including electric charges	day	14.25	9750.00	138937.50	
0138	Sprayer (for bitumen, tar etc.)	day	14.25	816.00	11628.00	
	(d) Air jetting					
0058	Air compressor	hour	2.00	250.00	500.00	
0114	Beldar	day	0.25	736.00	184.00	
	(e) Ultra Violet Radiation					
0085	Using cost of Ultra Violet Radiation tube	hour	0.50	200.00	100.00	
0114	Beldar	day	0.063	736.00	46.37	
	TOTAL				169370.27	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				1693.70	
	TOTAL				171063.97	X
	Add GST on "X" (multiplying factor 0.2127)				36385.31	
	TOTAL				207449.28	Y
	Add 15% CPOH on "Y"				31117.39	
	TOTAL				238566.67	Z
	Add Cess @ 1% on "Z"				2385.67	
	Cost of 570 sqm				240952.34	
	Cost of 1 sqm				422.72	
	Say				422.70	

14.79 Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	LABOUR					
	For disconnecting & dismantling of existing W/s line of water storage tanks on terrace of Qtrs.					
0117	Assistant Fitter or 2nd class Fitter	day	0.10	816.00	81.60	
0114	Beldar	day	0.10	736.00	73.60	
	For Bringing the tank at Ground Level					
0114	Beldar	day	0.20	736.00	147.20	
9999	Sundries	L.S.	1.10	2.27	2.50	
	TOTAL				304.90	W
	Add 1 % Water charges on "W"				3.05	
	TOTAL				307.95	X
	Add GST on "X" (multiplying factor 0.2127)				65.50	
	TOTAL				373.45	Y
	Add 15% CPOH on "Y"				56.02	
	TOTAL				429.47	Z
	Add Cess @ 1% on "Z"				4.29	
	Cost for each				433.76	
	Say				433.75	

14.80 Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.

14.80.1 Long pattern W.C Pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
1953	Vitreous china Indian type W.C. pan size 580 mm	each	1.00	500.00	500.00	
1970	Vitreous china foot rests 250x125x25 mm	pair	1.00	108.00	108.00	
1890	Centrifugally sand cast (spun) S&S "P" or "S" trap	each	1.00	358.00	358.00	
9999	Cement sand & grit etc.	L.S.	13.36	2.27	30.33	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	Less for					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1880	Dismantled “P” or “S” trap scrap (app. Wt 2 kg.)	kg	-2.00	28.00	-56.00	
	LABOUR					
	(a) For dismantling WC seat and P or S trap					
0129	Sewerman	day	0.05	736.00	36.80	
0114	Beldar	day	0.20	736.00	147.20	
	(b) For Fixing WC seat and “P” or “S” trap					
0126	Mason 1st class	day	0.80	897.00	717.60	
0114	Beldar	day	0.80	736.00	588.80	
	TOTAL				2461.42	W
	Add 1 % Water charges on “W”				24.61	
	TOTAL				2486.03	X
	Add GST on “X” (multiplying factor 0.2127)				528.78	
	TOTAL				3014.81	Y
	Add 15% CPOH on “Y”				452.22	
	TOTAL				3467.03	Z
	Add Cess @ 1% on “Z”				34.67	
	Cost of each				3501.70	
	Say				3501.70	

14.80.2 Orissa pattern W.C Pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
1954	Vitreous china orrisa type W.C. pan size 580 mm	each	1.00	1350.00	1350.00	
1890	Centrifugally sand cast (spun) S&S “P” or “S” trap	each	1.00	358.00	358.00	
9999	Cement sand & grit etc.	L.S.	13.36	2.27	30.33	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	Less for					
1880	Dismantled “P” or “S” trap scrap (app. Wt 2 kg.)	kg	-2.00	28.00	-56.00	
	LABOUR					
	(a) For dismantling WC seat and P or S trap					
0129	Sewerman	day	0.05	736.00	36.80	
0114	Beldar	day	0.125	736.00	92.00	
	(b) For Fixing WC seat and “P” or “S” trap					
0126	Mason 1st class	day	0.80	897.00	717.60	
0114	Beldar	day	0.80	736.00	588.80	
	TOTAL				3148.22	W
	Add 1 % Water charges on “W”				31.48	
	TOTAL				3179.70	X
	Add GST on “X” (multiplying factor 0.2127)				676.32	
	TOTAL				3856.02	Y
	Add 15% CPOH on “Y”				578.40	
	TOTAL				4434.42	Z
	Add Cess @ 1% on “Z”				44.34	
	Cost of each				4478.76	
	Say				4478.75	

14.81 Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of Cost for 10 holes					
	Size 0.30x0.30x0.23 m wall					
	MATERIAL					
	12 mm plaster 1:4 (1 Cement: 4 Coarse sand)					
	Actual Area (10x4x0.3x0.23) = 0.296 + 0.24					
	L.S. For corners/sides = 3.00 Sqm					
13.4.1	Rate as per Item No.13.4.1 of SH:FINISHING	sqm	3.00	357.35	1072.05	A
7752	PVC slotted pipe 200 mm dia as per IS: 12818	metre	0.25	875.00	218.75	
9999	Sundries	L.S.	8.06	2.27	18.30	
	LABOUR					
	Proportionate labour taken as actually required at site					
0123	Mason 1st class (0.16/0.0306)= 0.11 Nos.	day	0.11	897.00	98.67	
0124	Mason 2nd class (0.16/0.030)x0.207 = 0.11 Nos.	day	0.11	816.00	89.76	
0114	Beldar (1.25x0.207)/0.0306 =1.10 Nos.	day	1.10	736.00	809.60	
9999	Add L.S. For Delay	L.S.	16.12	2.27	36.59	
	TOTAL				2343.72	W
	Add 1 % Water charges on “W-A”				12.72	
	TOTAL				2356.44	X
	Add GST on “X-A” (multiplying factor 0.2127)				273.19	
	TOTAL				2629.63	Y
	Add 15% CPOH on “Y-A”				233.64	
	TOTAL				2863.27	Z
	Add Cess @ 1% on “Z-A”				17.91	
	Cost of 10 nos				2881.18	
	Cost of each				288.12	
	Say				288.10	

14.82 Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	LABOUR					
0114	Beldar	day	0.125	736.00	92.00	
9999	Sundries	L.S.	1.00	2.27	2.27	
	TOTAL				94.27	W
	Add 1 % Water charges on “W”				0.94	
	TOTAL				95.21	X
	Add GST on “X” (multiplying factor 0.2127)				20.25	
	TOTAL				115.46	Y
	Add 15% CPOH on “Y”				17.32	
	TOTAL				132.78	Z
	Add Cess @ 1% on “Z”				1.33	
	Cost of each				134.11	
	Say				134.10	

14.83 Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	0.03	736.00	22.08	
9999	Sundries	L.S.	1.00	2.27	2.27	
	TOTAL				24.35	W
	Add 1 % Water charges on "W"				0.24	
	TOTAL				24.59	X
	Add GST on "X" (multiplying factor 0.2127)				5.23	
	TOTAL				29.82	Y
	Add 15% CPOH on "Y"				4.47	
	TOTAL				34.29	Z
	Add Cess @ 1% on "Z"				0.34	
	Cost of 10 sqm				34.63	
	Cost of 1 sqm				3.46	
	Say				3.45	

14.84 Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.
(a) Internal Work- Exposed on wall

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
9999	Dismantling of G.I. Pipe and stacking etc.	L.S.	10.00	2.27	22.70	
	TOTAL				22.70	W
	Add 1 % Water charges on "W"				0.23	
	TOTAL				22.93	X
	Add GST on "X" (multiplying factor 0.2127)				4.88	
	TOTAL				27.81	Y
	Add 15% CPOH on "Y"				4.17	
	TOTAL				31.98	Z
	Add Cess @ 1% on "Z"				0.32	
	Cost of 10 metres				32.30	
	Cost of 1 metre				3.23	
	Say				3.25	

14.85 Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one shutter (2.02 sqm)					
	Normal exiting size of shutter 1.00x2.02m =2.02sqm					
	MATERIAL					
0637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	0.24	62.00	14.88	
	Assuming old hinges fixed in Tee iron frames					
	Half qty = 48/2=24 needs replacement					
	LABOUR					
0156	Carpenter (average)	day	0.18	857.00	154.26	
0114	Beldar	day	0.18	736.00	132.48	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				301.62	W
	Add 1 % Water charges on "W"				3.02	
	TOTAL				304.64	X
	Add GST on "X" (multiplying factor 0.2127)				64.80	
	TOTAL				369.44	Y
	Add 15% CPOH on "Y"				55.42	
	TOTAL				424.86	Z
	Add Cess @ 1% on "Z"				4.25	
	Cost for each shutter				429.11	
	Say				429.10	

14.86 Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5 mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 sqm					
	MATERIAL					
	APP modified polymeric felt (two layers) 1.5 mm thick = 2x30 = 60 sqm + Add 10% wastage = 6 sqm. Total = 66 sqm					
8200	A.P.P. modified polymeric felt (two layers) 1.5 mm thick	sqm	66.00	90.00	5940.00	
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	50.00	600.00	
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 3x36 =108 kg = 0.108 tonne	tonne	0.108	38250.00	4131.00	
2211	Carriage of Tar bitumen	tonne	0.12	0.00	0.00	
9977	Carriage of polymeric felt	L.S.	7.80	2.27	17.71	
0370	Coal (steam)	quintal	0.174	500.00	87.00	
2200	Carriage of steam coal	tonne	0.017	0.00	0.00	
9999	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.27	305.43	
	LABOUR					
0131	Painter	day	2.16	816.00	1762.56	
0114	Beldar	day	3.24	736.00	2384.64	
0130	Mistry	day	0.18	897.00	161.46	
9999	Sundries, brushes etc	L.S.	6.76	2.27	15.35	
	TOTAL				15405.15	W
	Add 1 % Water charges on "W"				154.05	
	TOTAL				15559.20	X
	Add GST on "X" (multiplying factor 0.2127)				3309.44	
	TOTAL				18868.64	Y
	Add 15% CPOH on "Y"				2830.30	
	TOTAL				21698.94	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				216.99	
	Cost for 30 sqm				21915.93	
	Cost for 1 sqm				730.53	
	Say				730.55	

14.87 Providing and laying in situ five course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd & 4th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/ sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 sqm					
	MATERIAL					
	APP modified polymeric felt (two layers) 2.0 mm thick = 30 sqm Add 10% wastage = 3 sqm					
	Total = 33 sqm					
8201	A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	33.00	130.00	4290.00	
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	50.00	600.00	
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 1.20x30x2 =72 kg = 0.072 tonne	tonne	0.072	38250.00	2754.00	
2211	Carriage of Tar bitumen	tonne	0.084	0.00	0.00	
9977	Carriage of polymeric felt	L.S.	7.80	2.27	17.71	
0370	Coal (steam)	quintal	0.174	500.00	87.00	
2200	Carriage of steam coal	tonne	0.017	0.00	0.00	
9999	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.27	305.43	
	LABOUR					
0131	Painter	day	1.58	816.00	1289.28	
0114	Beldar	day	2.37	736.00	1744.32	
0130	Mistry	day	0.13	897.00	116.61	
9999	Sundries, brushes etc	L.S.	6.76	2.27	15.35	
	TOTAL				11219.70	W
	Add 1 % Water charges on "W"				112.20	
	TOTAL				11331.90	X
	Add GST on "X" (multiplying factor 0.2127)				2410.30	
	TOTAL				13742.20	Y
	Add 15% CPOH on "Y"				2061.33	
	TOTAL				15803.53	Z
	Add Cess @ 1% on "Z"				158.04	
	Cost for 30 sqm				15961.57	
	Cost for 1 sqm				532.05	
	Say				532.05	

14.88 Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 sqm					
	MATERIAL					
	APP modified polymeric felt (two layers) 2.0 mm thick = 2x30 = 60 sqm Add 10% wastage = 6 sqm					
	Total = 66 sqm					
8201	A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	66.00	130.00	8580.00	
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	50.00	600.00	
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 3course x 36 = 108 kg = 0.108 tonne	tonne	0.108	38250.00	4131.00	
2211	Carriage of Tar bitumen	tonne	0.12	0.00	0.00	
9977	Carriage of polymeric felt	L.S.	7.80	2.27	17.71	
0370	Coal (steam)	quintal	0.174	500.00	87.00	
2200	Carriage of steam coal	tonne	0.017	0.00	0.00	
9999	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.27	305.43	
	LABOUR					
0131	Painter	day	2.16	816.00	1762.56	
0114	Beldar	day	3.24	736.00	2384.64	
0130	Mistry	day	0.18	897.00	161.46	
9999	Sundries, brushes etc	L.S.	6.76	2.27	15.35	
	TOTAL				18045.15	W
	Add 1 % Water charges on “W”				180.45	
	TOTAL				18225.60	X
	Add GST on “X” (multiplying factor 0.2127)				3876.59	
	TOTAL				22102.19	Y
	Add 15% CPOH on “Y”				3315.33	
	TOTAL				25417.52	Z
	Add Cess @ 1% on “Z”				254.18	
	Cost for 30 sqm				25671.70	
	Cost for 1 sqm				855.72	
	Say				855.70	

14.89 Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrance manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/ 5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacture of membrane.

14.89.1 2mm (for corrugated roof sheets)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm					
	MATERIAL					
	A.P.P. modified 2 mm thick = 30 sqm					
	Add 10% for wastage - 3 sqm					
	Total= 33 sqm					
8203	A.P.P. modified 2 mm thick membrance reinforced with glass fibre matt	sqm	33.00	120.00	3960.00	
8206	Bitumen primer for bitumen membrance	litre	12.00	95.00	1140.00	
2211	Carriage of Tar bitumen	tonne	0.012	0.00	0.00	
9977	Carriage of bitumen membrance	L.S.	7.80	2.27	17.71	
1241	Commercial LPG in cylinder	kg	7.00	106.00	742.00	
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.27	112.43	
	LABOUR					
0159	Skilled torch operator for laying tack	day	2.16	897.00	1937.52	
0130	Mistry	day	0.18	897.00	161.46	
0114	Beldar	day	3.24	736.00	2384.64	
9999	Sundries, brushes, bitumen torch etc	L.S.	23.40	2.27	53.12	
	TOTAL				10508.88	W
	Add 1 % Water charges on “W”				105.09	
	TOTAL				10613.97	X
	Add GST on “X” (multiplying factor 0.2127)				2257.59	
	TOTAL				12871.56	Y
	Add 15% CPOH on “Y”				1930.73	
	TOTAL				14802.29	Z
	Add Cess @ 1% on “Z”				148.02	
	Cost for 30 sqm				14950.31	
	Cost for 1 sqm				498.34	
	Say				498.35	

14.90 Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :

14.90.1 3 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm					
	MATERIAL					
	A.P.P. modified 3 mm thick = 30 sqm					
	Add 10% for wastage - 3 sqm					
	Total = 33 sqm					
8204	A.P.P. modified 3 mm thick membrance reinforced with glass fibre matt	sqm	33.00	145.00	4785.00	
8206	Bitumen primer for bitumen membrance	litre	12.00	95.00	1140.00	
2211	Carriage of Tar bitumen	tonne	0.012	0.00	0.00	
9977	Carriage of bitumen membrance	L.S.	7.80	2.27	17.71	
1241	Commercial LPG in cylinder	kg	7.00	106.00	742.00	
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.27	112.43	
	LABOUR					
0159	Skilled torch operator for laying tack	day	2.16	897.00	1937.52	
0130	Mistry	day	0.18	897.00	161.46	
0114	Beldar	day	3.24	736.00	2384.64	
9999	Sundries, brushes, bitumen torch etc	L.S.	23.40	2.27	53.12	
	TOTAL				11333.88	W
	Add 1 % Water charges on “W”				113.34	
	TOTAL				11447.22	X
	Add GST on “X” (multiplying factor 0.2127)				2434.82	
	TOTAL				13882.04	Y
	Add 15% CPOH on “Y”				2082.31	
	TOTAL				15964.35	Z
	Add Cess @ 1% on “Z”				159.64	
	Cost for 30 sqm				16123.99	
	Cost for 1 sqm				537.47	
	Say				537.45	

14.91 Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscocity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/ 5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :

14.91.1 3 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm					
	MATERIAL					
	A.P.P. modified 3 mm thick - 30 sqm					
	Add 10% for wastage - 3 sqm					
	Total = 33 sqm					
8205	A.P.P. modified 3 mm thick membrance reinforced with polyster matt	sqm	33.00	160.00	5280.00	
8206	Bitumen primer for bitumen membrance	litre	12.00	95.00	1140.00	
2211	Carriage of Tar bitumen	tonne	0.012	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of bitumen membrance	L.S.	7.80	2.27	17.71	
	Fuel					
1241	Commercial LPG in cylinder	kg	7.00	106.00	742.00	
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.27	112.43	
	LABOUR					
0159	Skilled torch operator for laying tack	day	2.16	897.00	1937.52	
0130	Mistry	day	0.18	897.00	161.46	
0114	Beldar	day	3.24	736.00	2384.64	
9999	Sundries, brushes, bitumen torch etc	L.S.	23.4	2.27	53.12	
	TOTAL				11828.88	W
	Add 1 % Water charges on “W”				118.29	
	TOTAL				11947.17	X
	Add GST on “X” (multiplying factor 0.2127)				2541.16	
	TOTAL				14488.33	Y
	Add 15% CPOH on “Y”				2173.25	
	TOTAL				16661.58	Z
	Add Cess @ 1% on “Z”				166.62	
	Cost for 30 sqm				16828.20	
	Cost for 1 sqm				560.94	
	Say				560.95	

14.92 Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm					
	MATERIAL					
	Geotextile 120 gsm membrance - 30 sqm					
	Add 5% for wastage - 1.50 sqm					
	Total= 31.50 sqm					
8207	Geotextile 120 gsm membrance	sqm	31.50	27.00	850.50	
9977	Carriage of Geotextile	L.S.	7.80	2.27	17.71	
	LABOUR					
0159	Skilled torch operator for laying tack	day	0.43	897.00	385.71	
	or fitter 2.16 / 5 = 0.43					
0130	Mistry	day	0.04	897.00	35.88	
	0.18 / 5 = 0.04					
0114	Beldar	day	0.65	736.00	478.40	
	3.24-5 / 0.65					
9999	Sundries, torch, LPG etc	L.S.	46.80	2.27	106.24	
	TOTAL				1874.44	W
	Add 1 % Water charges on “W”				18.74	
	TOTAL				1893.18	X
	Add GST on “X” (multiplying factor 0.2127)				402.68	
	TOTAL				2295.86	Y
	Add 15% CPOH on “Y”				344.38	
	TOTAL				2640.24	Z
	Add Cess @ 1% on “Z”				26.40	
	Cost for 30 sqm				2666.64	
	Cost for 1 sqm				88.89	
	Say				88.90	

14.93 Providing round the clock security guard without gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete,as per the direction of Engineer-in-charge. (One job means 8 hour's duty).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 job (8hour's duty)					
0164	Security guard (without gun)	day	1.00	897.00	897.00	
9999	Lathi,torch,dress & other sundries	L.S.	10.00	2.27	22.70	
	TOTAL				919.70	W
	Add 1 % Water charges on "W"				9.20	
	TOTAL				928.90	X
	Add GST on "X" (multiplying factor 0.2127)				197.58	
	TOTAL				1126.48	Y
	Add 15% CPOH on "Y"				168.97	
	TOTAL				1295.45	Z
	Add Cess @ 1% on "Z"				12.95	
	Cost of 1 job				1308.40	
	Say				1308.40	

14.94 Providing round the clock security guard with gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete, as per the direction of Engineer-in-charge.(One job means 8 hour's duty).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 job (8hour's duty)					
0165	Security guard (with gun)	day	1.00	973.00	973.00	
9999	Lathi,torch,uniform,wooden stick & other miscellaneous items	L.S.	10.00	2.27	22.70	
	TOTAL				995.70	W
	Add 1 % Water charges on "W"				9.96	
	TOTAL				1005.66	X
	Add GST on "X" (multiplying factor 0.2127)				213.90	
	TOTAL				1219.56	Y
	Add 15% CPOH on "Y"				182.93	
	TOTAL				1402.49	Z
	Add Cess @ 1% on "Z"				14.02	
	Cost of 1 job				1416.51	
	Say				1416.50	

SUB HEAD : 15.0
DISMANTLING AND DEMOLISHING

15.1 Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer- in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.44	736.00	323.84	
0115	Coolie	day	0.37	736.00	272.32	
9999	Sundries	L.S.	1.04	2.27	2.36	
	TOTAL				598.52	W
	Add 1 % Water charges on “W”				5.99	
	TOTAL				604.51	X
	Add GST on “X” (multiplying factor 0.2127)				128.58	
	TOTAL				733.09	Y
	Add 15% CPOH on “Y”				109.96	
	TOTAL				843.05	Z
	Add Cess @ 1% on “Z”				8.43	
	Cost of 1.00 cum				851.48	
	Say				851.50	

15.2 Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.

15.2.1 Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	1.59	736.00	1170.24	
0115	Coolie	day	0.72	736.00	529.92	
9999	Sundries	L.S.	4.81	2.27	10.92	
	TOTAL				1711.08	W
	Add 1 % Water charges on “W”				17.11	
	TOTAL				1728.19	X
	Add GST on “X” (multiplying factor 0.2127)				367.59	
	TOTAL				2095.78	Y
	Add 15% CPOH on “Y”				314.37	
	TOTAL				2410.15	Z
	Add Cess @ 1% on “Z”				24.10	
	Cost of 1.00 cum				2434.25	
	Say				2434.25	

15.2.2 Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.88	736.00	647.68	
0115	Coolie	day	0.55	736.00	404.80	
9999	Sundries	L.S.	1.95	2.27	4.43	
	TOTAL				1056.91	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				10.57	
	TOTAL				1067.48	X
	Add GST on "X" (multiplying factor 0.2127)				227.05	
	TOTAL				1294.53	Y
	Add 15% CPOH on "Y"				194.18	
	TOTAL				1488.71	Z
	Add Cess @ 1% on "Z"				14.89	
	Cost of 1.00 cum				1503.60	
	Say				1503.60	

15.3 Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	2.65	736.00	1950.40	
0115	Coolie	day	0.72	736.00	529.92	
9999	Sundries	L.S.	7.02	2.27	15.94	
	TOTAL				2496.26	W
	Add 1 % Water charges on "W"				24.96	
	TOTAL				2521.22	X
	Add GST on "X" (multiplying factor 0.2127)				536.26	
	TOTAL				3057.48	Y
	Add 15% CPOH on "Y"				458.62	
	TOTAL				3516.10	Z
	Add Cess @ 1% on "Z"				35.16	
	Cost of 1.00 cum				3551.26	
	Say				3551.25	

15.4 Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	2.12	736.00	1560.32	
0115	Coolie	day	0.90	736.00	662.40	
9999	Sundries	L.S.	4.68	2.27	10.62	
	TOTAL				2233.34	W
	Add 1 % Water charges on "W"				22.33	
	TOTAL				2255.67	X
	Add GST on "X" (multiplying factor 0.2127)				479.78	
	TOTAL				2735.45	Y
	Add 15% CPOH on "Y"				410.32	
	TOTAL				3145.77	Z
	Add Cess @ 1% on "Z"				31.46	
	Cost of 1.00 cum				3177.23	
	Say				3177.25	

15.5 Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 sqm					
	R.C.C. or R.B. workReinforced area considering 1% reinforcement = 0.01sqm					
	LABOUR					
	For cutting 0.01 sqm reinforcement					
0103	Blacksmith 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				806.40	W
	Add 1 % Water charges on “W”				8.06	
	TOTAL				814.46	X
	Add GST on “X” (multiplying factor 0.2127)				173.24	
	TOTAL				987.70	Y
	Add 15% CPOH on “Y”				148.16	
	TOTAL				1135.86	Z
	Add Cess @ 1% on “Z”				11.36	
	Cost of 1.00 sqm				1147.22	
	Say				1147.20	

15.6 Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 Nos					
	6 metres long 16 mm dia bars @ 1.58 kg/metre					
	Total weight = 94.80 kg = 0.948 quintal					
	LABOUR					
0103	Blacksmith 2nd class	day	0.25	816.00	204.00	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				602.40	W
	Add 1 % Water charges on “W”				6.02	
	TOTAL				608.42	X
	Add GST on “X” (multiplying factor 0.2127)				129.41	
	TOTAL				737.83	Y
	Add 15% CPOH on “Y”				110.67	
	TOTAL				848.50	Z
	Add Cess @ 1% on “Z”				8.49	
	Cost of 94.80 kg				856.99	
	Cost of 1.00 kg				9.04	
	Say				9.05	

15.7 Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.

15.7.1 In mud mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.30	736.00	220.80	
0115	Coolie	day	0.37	736.00	272.32	
9999	Sundries	L.S.	1.04	2.27	2.36	
	TOTAL				495.48	W
	Add 1 % Water charges on “W”				4.95	
	TOTAL				500.43	X
	Add GST on “X” (multiplying factor 0.2127)				106.44	
	TOTAL				606.87	Y
	Add 15% CPOH on “Y”				91.03	
	TOTAL				697.90	Z
	Add Cess @ 1% on “Z”				6.98	
	Cost of 1.00 cum				704.88	
	Say				704.90	

15.7.2 In lime mortar with old mughal bricks

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	1.24	736.00	912.64	
0115	Coolie	day	0.46	736.00	338.56	
9999	Sundries	L.S.	1.04	2.27	2.36	
	TOTAL				1253.56	W
	Add 1 % Water charges on “W”				12.54	
	TOTAL				1266.10	X
	Add GST on “X” (multiplying factor 0.2127)				269.30	
	TOTAL				1535.40	Y
	Add 15% CPOH on “Y”				230.31	
	TOTAL				1765.71	Z
	Add Cess @ 1% on “Z”				17.66	
	Cost of 1.00 cum				1783.37	
	Say				1783.35	

15.7.3 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.44	736.00	323.84	
0115	Coolie	day	0.37	736.00	272.32	
9999	Sundries	L.S.	1.04	2.27	2.36	
	TOTAL				598.52	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				5.99	
	TOTAL				604.51	X
	Add GST on “X” (multiplying factor 0.2127)				128.58	
	TOTAL				733.09	Y
	Add 15% CPOH on “Y”				109.96	
	TOTAL				843.05	Z
	Add Cess @ 1% on “Z”				8.43	
	Cost of 1.00 cum				851.48	
	Say				851.50	

15.7.4 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	1.06	736.00	780.16	
0115	Coolie	day	0.90	736.00	662.40	
9999	Sundries	L.S.	2.47	2.27	5.61	
	TOTAL				1448.17	W
	Add 1 % Water charges on “W”				14.48	
	TOTAL				1462.65	X
	Add GST on “X” (multiplying factor 0.2127)				311.11	
	TOTAL				1773.76	Y
	Add 15% CPOH on “Y”				266.06	
	TOTAL				2039.82	Z
	Add Cess @ 1% on “Z”				20.40	
	Cost of 1.00 cum				2060.22	
	Say				2060.20	

15.8 Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):

15.8.1 From brick work in mud mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1000 Nos					
	LABOUR					
0114	Beldar	day	2.40	736.00	1766.40	
0115	Coolie	day	1.60	736.00	1177.60	
0124	Mason 2nd class	day	0.40	816.00	326.40	
9999	Sundries	L.S.	1.82	2.27	4.13	
	TOTAL				3274.53	W
	Add 1 % Water charges on “W”				32.75	
	TOTAL				3307.28	X
	Add GST on “X” (multiplying factor 0.2127)				703.46	
	TOTAL				4010.74	Y
	Add 15% CPOH on “Y”				601.61	
	TOTAL				4612.35	Z
	Add Cess @ 1% on “Z”				46.12	
	Cost of 1000 Nos				4658.47	
	Say				4658.45	

15.8.2 From brick work in lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1000 Nos					
	LABOUR					
0114	Beldar	day	2.80	736.00	2060.80	
0115	Coolie	day	1.40	736.00	1030.40	
0124	Mason 2nd class	day	0.80	816.00	652.80	
9999	Sundries	L.S.	8.97	2.27	20.36	
	TOTAL				3764.36	W
	Add 1 % Water charges on “W”				37.64	
	TOTAL				3802.00	X
	Add GST on “X” (multiplying factor 0.2127)				808.69	
	TOTAL				4610.69	Y
	Add 15% CPOH on “Y”				691.60	
	TOTAL				5302.29	Z
	Add Cess @ 1% on “Z”				53.02	
	Cost of 1000 Nos				5355.31	
	Say				5355.30	

15.8.3 From brick work in cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1000 Nos					
	LABOUR					
0114	Beldar	day	3.50	736.00	2576.00	
0115	Coolie	day	1.50	736.00	1104.00	
0124	Mason 2nd class	day	1.24	816.00	1011.84	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				4710.14	W
	Add 1 % Water charges on “W”				47.10	
	TOTAL				4757.24	X
	Add GST on “X” (multiplying factor 0.2127)				1011.86	
	TOTAL				5769.10	Y
	Add 15% CPOH on “Y”				865.37	
	TOTAL				6634.47	Z
	Add Cess @ 1% on “Z”				66.34	
	Cost of 1000 Nos				6700.81	
	Say				6700.80	

15.9 Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.9.1 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.61	736.00	448.96	
0115	Coolie	day	0.49	736.00	360.64	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	1.95	2.27	4.43	
	TOTAL				814.03	W
	Add 1 % Water charges on “W”				8.14	
	TOTAL				822.17	X
	Add GST on “X” (multiplying factor 0.2127)				174.88	
	TOTAL				997.05	Y
	Add 15% CPOH on “Y”				149.56	
	TOTAL				1146.61	Z
	Add Cess @ 1% on “Z”				11.47	
	Cost of 1.00 cum				1158.08	
	Say				1158.10	

15.9.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	1.30	736.00	956.80	
0115	Coolie	day	1.04	736.00	765.44	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				1728.44	W
	Add 1 % Water charges on “W”				17.28	
	TOTAL				1745.72	X
	Add GST on “X” (multiplying factor 0.2127)				371.31	
	TOTAL				2117.03	Y
	Add 15% CPOH on “Y”				317.55	
	TOTAL				2434.58	Z
	Add Cess @ 1% on “Z”				24.35	
	Cost of 1.00 cum				2458.93	
	Say				2458.95	

15.10 Dismantling dressed stone work ashlar face stone work, marble work or precast concrete work manually/ by mechanical means including stacking of serviceable and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.10.1 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.78	736.00	574.08	
0115	Coolie	day	0.61	736.00	448.96	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				1029.24	W
	Add 1 % Water charges on “W”				10.29	
	TOTAL				1039.53	X
	Add GST on “X” (multiplying factor 0.2127)				221.11	
	TOTAL				1260.64	Y
	Add 15% CPOH on “Y”				189.10	
	TOTAL				1449.74	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on “Z”				14.50	
	Cost of 1.00 cum				1464.24	
	Say				1464.25	

15.10.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	1.55	736.00	1140.80	
0115	Coolie	day	1.19	736.00	875.84	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				2022.84	W
	Add 1 % Water charges on “W”				20.23	
	TOTAL				2043.07	X
	Add GST on “X” (multiplying factor 0.2127)				434.56	
	TOTAL				2477.63	Y
	Add 15% CPOH on “Y”				371.64	
	TOTAL				2849.27	Z
	Add Cess @ 1% on “Z”				28.49	
	Cost of 1.00 cum				2877.76	
	Say				2877.75	

15.11 Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured):

15.11.1 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0124	Mason 2nd class	day	0.05	816.00	40.80	
0114	Beldar	day	0.20	736.00	147.20	
0115	Coolie	day	0.20	736.00	147.20	
9999	Sundries	L.S.	0.52	2.27	1.18	
	TOTAL				336.38	W
	Add 1 % Water charges on “W”				3.36	
	TOTAL				339.74	X
	Add GST on “X” (multiplying factor 0.2127)				72.26	
	TOTAL				412.00	Y
	Add 15% CPOH on “Y”				61.80	
	TOTAL				473.80	Z
	Add Cess @ 1% on “Z”				4.74	
	Cost of 1.00 cum				478.54	
	Say				478.55	

15.11.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0124	Mason 2nd class	day	0.05	816.00	40.80	
0114	Beldar	day	0.40	736.00	294.40	
0115	Coolie	day	0.20	736.00	147.20	
9999	Sundries	L.S.	0.91	2.27	2.07	
	TOTAL				484.47	W
	Add 1 % Water charges on “W”				4.84	
	TOTAL				489.31	X
	Add GST on “X” (multiplying factor 0.2127)				104.08	
	TOTAL				593.39	Y
	Add 15% CPOH on “Y”				89.01	
	TOTAL				682.40	Z
	Add Cess @ 1% on “Z”				6.82	
	Cost of 1.00 cum				689.22	
	Say				689.20	

15.12 Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :

15.12.1 Of area 3 sq. metres and below

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0124	Mason 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.18	736.00	132.48	
0103	Blacksmith 2nd class	day	0.05	816.00	40.80	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				258.13	W
	Add 1 % Water charges on “W”				2.58	
	TOTAL				260.71	X
	Add GST on “X” (multiplying factor 0.2127)				55.45	
	TOTAL				316.16	Y
	Add 15% CPOH on “Y”				47.42	
	TOTAL				363.58	Z
	Add Cess @ 1% on “Z”				3.64	
	Cost of each				367.22	
	Say				367.20	

15.12.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0124	Mason 2nd class	day	0.13	816.00	106.08	
0114	Beldar	day	0.25	736.00	184.00	
0103	Blacksmith 2nd class	day	0.07	816.00	57.12	
9999	Sundries	L.S.	2.73	2.27	6.20	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				353.40	W
	Add 1 % Water charges on “W”				3.53	
	TOTAL				356.93	X
	Add GST on “X” (multiplying factor 0.2127)				75.92	
	TOTAL				432.85	Y
	Add 15% CPOH on “Y”				64.93	
	TOTAL				497.78	Z
	Add Cess @ 1% on “Z”				4.98	
	Cost of each				502.76	
	Say				502.75	

15.13 Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :

15.13.1 Of area 3 sq. metres and below

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0112	Carpenter 2nd class	day	0.05	816.00	40.80	
0114	Beldar	day	0.08	736.00	58.88	
9999	Sundries	L.S.	0.52	2.27	1.18	
	TOTAL				100.86	W
	Add 1 % Water charges on “W”				1.01	
	TOTAL				101.87	X
	Add GST on “X” (multiplying factor 0.2127)				21.67	
	TOTAL				123.54	Y
	Add 15% CPOH on “Y”				18.53	
	TOTAL				142.07	Z
	Add Cess @ 1% on “Z”				1.42	
	Cost of each				143.49	
	Say				143.50	

15.13.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0112	Carpenter 2nd class	day	0.07	816.00	57.12	
0114	Beldar	day	0.10	736.00	73.60	
9999	Sundries	L.S.	0.91	2.27	2.07	
	TOTAL				132.79	W
	Add 1 % Water charges on “W”				1.33	
	TOTAL				134.12	X
	Add GST on “X” (multiplying factor 0.2127)				28.53	
	TOTAL				162.65	Y
	Add 15% CPOH on “Y”				24.40	
	TOTAL				187.05	Z
	Add Cess @ 1% on “Z”				1.87	
	Cost of each				188.92	
	Say				188.90	

15.14 Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead :

15.14.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0112	Carpenter 2nd class	day	2.00	816.00	1632.00	
0114	Beldar	day	2.00	736.00	1472.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				3134.40	W
	Add 1 % Water charges on “W”				31.34	
	TOTAL				3165.74	X
	Add GST on “X” (multiplying factor 0.2127)				673.35	
	TOTAL				3839.09	Y
	Add 15% CPOH on “Y”				575.86	
	TOTAL				4414.95	Z
	Add Cess @ 1% on “Z”				44.15	
	Cost of 1.00 cum				4459.10	
	Say				4459.10	

15.14.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
0112	Carpenter 2nd class	day	0.08	816.00	65.28	
0114	Beldar	day	0.08	736.00	58.88	
9999	Sundries	L.S.	0.52	2.27	1.18	
	TOTAL				125.34	W
	Add 1 % Water charges on “W”				1.25	
	TOTAL				126.59	X
	Add GST on “X” (multiplying factor 0.2127)				26.93	
	TOTAL				153.52	Y
	Add 15% CPOH on “Y”				23.03	
	TOTAL				176.55	Z
	Add Cess @ 1% on “Z”				1.77	
	Cost of 10.00 metre				178.32	
	Cost of 1.00 metre				17.83	
	Say				17.85	

15.15 Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of one metre or part thereof beyond 10 metres :

15.15.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1cum for every additional span of 1 metre					
	LABOUR					
0103	Blacksmith 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.30	736.00	220.80	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				414.40	W
	Add 1 % Water charges on “W”				4.14	
	TOTAL				418.54	X
	Add GST on “X” (multiplying factor 0.2127)				89.02	
	TOTAL				507.56	Y
	Add 15% CPOH on “Y”				76.13	
	TOTAL				583.69	Z
	Add Cess @ 1% on “Z”				5.84	
	Cost of 1.00 cum per metre span				589.53	
	Say				589.55	

15.15.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre for every additional span of 1 metre					
	LABOUR					
0103	Blacksmith 2nd class	day	0.006	816.00	4.90	
0114	Beldar	day	0.008	736.00	5.89	
9999	Sundries	L.S.	0.39	2.27	0.89	
	TOTAL				11.68	W
	Add 1 % Water charges on “W”				0.12	
	TOTAL				11.80	X
	Add GST on “X” (multiplying factor 0.2127)				2.51	
	TOTAL				14.31	Y
	Add 15% CPOH on “Y”				2.15	
	TOTAL				16.46	Z
	Add Cess @ 1% on “Z”				0.16	
	Cost of 10.00 metre per metre span				16.62	
	Cost of 1.00 metre per metre span				1.66	
	Say				1.65	

15.16 Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional height of one metre or part thereof beyond 5 metres :

15.16.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum for every additional height of 1 metre					
	LABOUR					
0103	Blacksmith 2nd class	day	0.25	816.00	204.00	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				602.40	W
	Add 1 % Water charges on “W”				6.02	
	TOTAL				608.42	X
	Add GST on “X” (multiplying factor 0.2127)				129.41	
	TOTAL				737.83	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				110.67	
	TOTAL				848.50	Z
	Add Cess @ 1% on "Z"				8.49	
	Cost of 1.00 cum per metre height				856.99	
	Say				857.00	

15.16.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre for every additional height of 1 metre					
	LABOUR					
0103	Blacksmith 2nd class	day	0.01	816.00	8.16	
0114	Beldar	day	0.02	736.00	14.72	
9999	Sundries	L.S.	0.39	2.27	0.89	
	TOTAL				23.77	W
	Add 1 % Water charges on "W"				0.24	
	TOTAL				24.01	X
	Add GST on "X" (multiplying factor 0.2127)				5.11	
	TOTAL				29.12	Y
	Add 15% CPOH on "Y"				4.37	
	TOTAL				33.49	Z
	Add Cess @ 1% on "Z"				0.33	
	Cost of 10.00 metre per metre height				33.82	
	Cost of 1.00 metre per metre height				3.38	
	Say				3.40	

15.17 Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:

15.17.1 R.S. Joists

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal					
	LABOUR					
0103	Blacksmith 2nd class	day	0.05	816.00	40.80	
0100	Bandhani	day	0.10	816.00	81.60	
0114	Beldar	day	0.15	736.00	110.40	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				239.00	W
	Add 1 % Water charges on "W"				2.39	
	TOTAL				241.39	X
	Add GST on "X" (multiplying factor 0.2127)				51.34	
	TOTAL				292.73	Y
	Add 15% CPOH on "Y"				43.91	
	TOTAL				336.64	Z
	Add Cess @ 1% on "Z"				3.37	
	Cost of 1.00 quintal				340.01	
	Cost of 1.00 kg				3.40	
	Say				3.40	

15.17.2 Channels, angles, tees and flats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal					
	LABOUR					
0103	Blacksmith 2nd class	day	0.05	816.00	40.80	
0100	Bandhani	day	0.05	816.00	40.80	
0114	Beldar	day	0.10	736.00	73.60	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				161.40	W
	Add 1 % Water charges on “W”				1.61	
	TOTAL				163.01	X
	Add GST on “X” (multiplying factor 0.2127)				34.67	
	TOTAL				197.68	Y
	Add 15% CPOH on “Y”				29.65	
	TOTAL				227.33	Z
	Add Cess @ 1% on “Z”				2.27	
	Cost of 1.00 quintal				229.60	
	Cost of 1.00 kg				2.30	
	Say				2.30	

15.18 Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal					
	LABOUR					
0103	Blacksmith 2nd class	day	0.15	816.00	122.40	
0100	Bandhani	day	0.10	816.00	81.60	
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	4.16	2.27	9.44	
	TOTAL				397.44	W
	Add 1 % Water charges on “W”				3.97	
	TOTAL				401.41	X
	Add GST on “X” (multiplying factor 0.2127)				85.38	
	TOTAL				486.79	Y
	Add 15% CPOH on “Y”				73.02	
	TOTAL				559.81	Z
	Add Cess @ 1% on “Z”				5.60	
	Cost of 1.00 quintal				565.41	
	Cost of 1.00 kg				5.65	
	Say				5.65	

15.19 Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal					
	LABOUR					
0100	Bandhani	day	0.10	816.00	81.60	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				271.80	W
	Add 1 % Water charges on “W”				2.72	
	TOTAL				274.52	X
	Add GST on “X” (multiplying factor 0.2127)				58.39	
	TOTAL				332.91	Y
	Add 15% CPOH on “Y”				49.94	
	TOTAL				382.85	Z
	Add Cess @ 1% on “Z”				3.83	
	Cost of 1.00 quintal				386.68	
	Cost of 1.00 kg				3.87	
	Say				3.85	

15.20 Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one metre or part thereof beyond 10 metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal for every additional span of 1 metre beyond 10 metre LABOUR					
0100	Bandhani	day	0.02	816.00	16.32	
0114	Beldar	day	0.06	736.00	44.16	
9999	Sundries	L.S.	0.39	2.27	0.89	
	TOTAL				61.37	W
	Add 1 % Water charges on “W”				0.61	
	TOTAL				61.98	X
	Add GST on “X” (multiplying factor 0.2127)				13.18	
	TOTAL				75.16	Y
	Add 15% CPOH on “Y”				11.27	
	TOTAL				86.43	Z
	Add Cess @ 1% on “Z”				0.86	
	Cost of 1.00 quintal per metre span				87.29	
	Cost of 1.00 kg per metre span				0.87	
	Say				0.85	

15.21 Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one metre or part thereof beyond 5 metres.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal for every additional height of 1 metre beyond 5 metre LABOUR					
0100	Bandhani	day	0.02	816.00	16.32	
0114	Beldar	day	0.06	736.00	44.16	
9999	Sundries	L.S.	0.39	2.27	0.89	
	TOTAL				61.37	W
	Add 1 % Water charges on “W”				0.61	
	TOTAL				61.98	X
	Add GST on “X” (multiplying factor 0.2127)				13.18	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				75.16	Y
	Add 15% CPOH on “Y”				11.27	
	TOTAL				86.43	Z
	Add Cess @ 1% on “Z”				0.86	
	Cost of 1.00 quintal per metre height				87.29	
	Cost of 1.00 kg per metre height				0.87	
	Say				0.85	

15.22 Extra for marking of structural steel work required to be re-erected.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal					
	LABOUR					
0130	Mistry	day	0.20	897.00	179.40	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				326.60	W
	Add 1 % Water charges on “W”				3.27	
	TOTAL				329.87	X
	Add GST on “X” (multiplying factor 0.2127)				70.16	
	TOTAL				400.03	Y
	Add 15% CPOH on “Y”				60.00	
	TOTAL				460.03	Z
	Add Cess @ 1% on “Z”				4.60	
	Cost of 1.00 quintal				464.63	
	Cost of 1.00 kg				4.65	
	Say				4.65	

15.23 Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.

15.23.1 For thickness of tiles 10 mm to 25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason 2nd class	day	0.30	816.00	244.80	
0114	Beldar	day	0.12	736.00	88.32	
0115	Coolie	day	0.24	736.00	176.64	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				515.96	W
	Add 1 % Water charges on “W”				5.16	
	TOTAL				521.12	X
	Add GST on “X” (multiplying factor 0.2127)				110.84	
	TOTAL				631.96	Y
	Add 15% CPOH on “Y”				94.79	
	TOTAL				726.75	Z
	Add Cess @ 1% on “Z”				7.27	
	Cost of 10.00 sqm				734.02	
	Cost of 1.00 sqm				73.40	
	Say				73.40	

15.23.2 For thickness of tiles above 25 mm and up to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason 2nd class	day	0.59	816.00	481.44	
0114	Beldar	day	0.18	736.00	132.48	
0115	Coolie	day	0.24	736.00	176.64	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				796.76	W
	Add 1 % Water charges on “W”				7.97	
	TOTAL				804.73	X
	Add GST on “X” (multiplying factor 0.2127)				171.17	
	TOTAL				975.90	Y
	Add 15% CPOH on “Y”				146.39	
	TOTAL				1122.29	Z
	Add Cess @ 1% on “Z”				11.22	
	Cost of 10.00 sqm				1133.51	
	Cost of 1.00 sqm				113.35	
	Say				113.35	

15.24 Demolishing dry brick pitching in floors, drains etc. including stacking of serviceable material and disposal of unserviceable material within 50 metres lead :

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	1.00	736.00	736.00	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				926.20	W
	Add 1 % Water charges on “W”				9.26	
	TOTAL				935.46	X
	Add GST on “X” (multiplying factor 0.2127)				198.97	
	TOTAL				1134.43	Y
	Add 15% CPOH on “Y”				170.16	
	TOTAL				1304.59	Z
	Add Cess @ 1% on “Z”				13.05	
	Cost of 1.00 cum				1317.64	
	Say				1317.65	

15.25 Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	1.77	736.00	1302.72	
0115	Coolie	day	0.75	736.00	552.00	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1873.02	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				18.73	
	TOTAL				1891.75	X
	Add GST on "X" (multiplying factor 0.2127)				402.38	
	TOTAL				2294.13	Y
	Add 15% CPOH on "Y"				344.12	
	TOTAL				2638.25	Z
	Add Cess @ 1% on "Z"				26.38	
	Cost of 10.00 sqm				2664.63	
	Cost of 1.00 sqm				266.46	
	Say				266.45	

15.26 Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason 2nd class	day	0.54	816.00	440.64	
0114	Beldar	day	0.16	736.00	117.76	
0115	Coolie	day	0.24	736.00	176.64	
9999	Sundries	L.S.	2.47	2.27	5.61	
	TOTAL				740.65	W
	Add 1 % Water charges on "W"				7.41	
	TOTAL				748.06	X
	Add GST on "X" (multiplying factor 0.2127)				159.11	
	TOTAL				907.17	Y
	Add 15% CPOH on "Y"				136.08	
	TOTAL				1043.25	Z
	Add Cess @ 1% on "Z"				10.43	
	Cost of 10.00 sqm				1053.68	
	Cost of 1.00 sqm				105.37	
	Say				105.35	

15.27 Demolishing mud phaska in terracing and disposal of material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	0.62	736.00	456.32	
9999	Sundries	L.S.	1.04	2.27	2.36	
	TOTAL				642.68	W
	Add 1 % Water charges on "W"				6.43	
	TOTAL				649.11	X
	Add GST on "X" (multiplying factor 0.2127)				138.07	
	TOTAL				787.18	Y
	Add 15% CPOH on "Y"				118.08	
	TOTAL				905.26	Z
	Add Cess @ 1% on "Z"				9.05	
	Cost of 1.00 cum				914.31	
	Say				914.30	

15.28 Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:

15.28.1 G.S. Sheet

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.00	736.00	736.00	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				1159.35	W
	Add 1 % Water charges on “W”				11.59	
	TOTAL				1170.94	X
	Add GST on “X” (multiplying factor 0.2127)				249.06	
	TOTAL				1420.00	Y
	Add 15% CPOH on “Y”				213.00	
	TOTAL				1633.00	Z
	Add Cess @ 1% on “Z”				16.33	
	Cost of 10.00 sqm				1649.33	
	Cost of 1.00 sqm				164.93	
	Say				164.95	

15.28.2 Asbestos Cement sheet

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				543.30	W
	Add 1 % Water charges on “W”				5.43	
	TOTAL				548.73	X
	Add GST on “X” (multiplying factor 0.2127)				116.71	
	TOTAL				665.44	Y
	Add 15% CPOH on “Y”				99.82	
	TOTAL				765.26	Z
	Add Cess @ 1% on “Z”				7.65	
	Cost of 10.00 sqm				772.91	
	Cost of 1.00 sqm				77.29	
	Say				77.30	

15.29 Dismantling stone slab roofing over wooden karries or R.C.C. battens (dismantling karries and battens to be paid for separately), including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 cum					
	LABOUR					
0114	Beldar	day	1.77	736.00	1302.72	
0115	Coolie	day	0.75	736.00	552.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1873.02	W
	Add 1 % Water charges on “W”				18.73	
	TOTAL				1891.75	X
	Add GST on “X” (multiplying factor 0.2127)				402.38	
	TOTAL				2294.13	Y
	Add 15% CPOH on “Y”				344.12	
	TOTAL				2638.25	Z
	Add Cess @ 1% on “Z”				26.38	
	Cost of 1.00 cum				2664.63	
	Say				2664.65	

15.30 Dismantling jack arch roofing and floors including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	1.19	736.00	875.84	
0115	Coolie	day	1.21	736.00	890.56	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1784.70	W
	Add 1 % Water charges on “W”				17.85	
	TOTAL				1802.55	X
	Add GST on “X” (multiplying factor 0.2127)				383.40	
	TOTAL				2185.95	Y
	Add 15% CPOH on “Y”				327.89	
	TOTAL				2513.84	Z
	Add Cess @ 1% on “Z”				25.14	
	Cost of 10.00 sqm				2538.98	
	Cost of 1.00 sqm				253.90	
	Say				253.90	

15.31 Dismantling tiled roofing with battens, boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	1.73	736.00	1273.28	
0115	Coolie	day	0.25	736.00	184.00	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				1475.58	W
	Add 1 % Water charges on “W”				14.76	
	TOTAL				1490.34	X
	Add GST on “X” (multiplying factor 0.2127)				317.00	
	TOTAL				1807.34	Y
	Add 15% CPOH on “Y”				271.10	
	TOTAL				2078.44	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on “Z”				20.78	
	Cost of 10.00 sqm				2099.22	
	Cost of 1.00 sqm				209.92	
	Say				209.90	

15.32 Demolishing thatch roofing including mats, bamboo, jaffari etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	0.54	736.00	397.44	
9999	Sundries	L.S.	3.64	2.27	8.26	
	TOTAL				405.70	W
	Add 1 % Water charges on “W”				4.06	
	TOTAL				409.76	X
	Add GST on “X” (multiplying factor 0.2127)				87.16	
	TOTAL				496.92	Y
	Add 15% CPOH on “Y”				74.54	
	TOTAL				571.46	Z
	Add Cess @ 1% on “Z”				5.71	
	Cost of 10.00 sqm				577.17	
	Cost of 1.00 sqm				57.72	
	Say				57.70	

15.33 Dismantling wooden ballies in posts and struts including stacking within 50metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 50 metre					
	LABOUR					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries	L.S.	0.52	2.27	1.18	
	TOTAL				737.18	W
	Add 1 % Water charges on “W”				7.37	
	TOTAL				744.55	X
	Add GST on “X” (multiplying factor 0.2127)				158.37	
	TOTAL				902.92	Y
	Add 15% CPOH on “Y”				135.44	
	TOTAL				1038.36	Z
	Add Cess @ 1% on “Z”				10.38	
	Cost of 50.00 metre				1048.74	
	Cost of 1.00 metre				20.97	
	Say				20.95	

15.34 Dismantling and stacking within 50 metres lead, fencing posts or struts including all earth work and dismantling of concrete etc. in base of:

15.34.1 T' or 'L' iron or pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0114	Beldar	day	0.107	736.00	78.75	
0115	Coolie	day	0.067	736.00	49.31	
9999	Excavation, transporting and stacking the posts to the required place within 50 metres lead, refilling the pit and dressing the same	L.S.	0.26	2.27	0.59	
9999	Extra for lifting of R.C.C. posts being heavier than L iron and cleaning the posts of stacking concrete	L.S.	13.39	2.27	30.40	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				162.30	W
	Add 1 % Water charges on "W"				1.62	
	TOTAL				163.92	X
	Add GST on "X" (multiplying factor 0.2127)				34.87	
	TOTAL				198.79	Y
	Add 15% CPOH on "Y"				29.82	
	TOTAL				228.61	Z
	Add Cess @ 1% on "Z"				2.29	
	Cost of each				230.90	
	Say				230.90	

15.34.2 R.C.C.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0114	Beldar	day	0.097	736.00	71.39	
0115	Coolie	day	0.06	736.00	44.16	
9999	Sundries	L.S.	0.26	2.27	0.59	
9999	Excavation, transporting and stacking the posts to the required place within 50 metres lead, refilling the pit and dressing the same	L.S.	13.39	2.27	30.40	
9999	Extra for lifting of R.C.C. posts being heavier than L iron and cleaning the posts of stacking concrete	L.S.	8.06	2.27	18.30	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				171.04	W
	Add 1 % Water charges on "W"				1.71	
	TOTAL				172.75	X
	Add GST on "X" (multiplying factor 0.2127)				36.74	
	TOTAL				209.49	Y
	Add 15% CPOH on "Y"				31.42	
	TOTAL				240.91	Z
	Add Cess @ 1% on "Z"				2.41	
	Cost of each				243.32	
	Say				243.30	

15.35 Cutting ballies or wooden posts of fencing at the point of projection above the concrete or ground and stacking the same within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 ballie (post)					
9999	Cutting	L.S.	2.73	2.27	6.20	
9999	Transporting and stacking	L.S.	1.43	2.27	3.25	
	TOTAL				9.45	W
	Add 1 % Water charges on "W"				0.09	
	TOTAL				9.54	X
	Add GST on "X" (multiplying factor 0.2127)				2.03	
	TOTAL				11.57	Y
	Add 15% CPOH on "Y"				1.74	
	TOTAL				13.31	Z
	Add Cess @ 1% on "Z"				0.13	
	Cost of each				13.44	
	Say				13.45	

15.36 Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 quintal					
	LABOUR					
0114	Beldar	day	3.50	736.00	2576.00	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				2588.10	W
	Add 1 % Water charges on "W"				25.88	
	TOTAL				2613.98	X
	Add GST on "X" (multiplying factor 0.2127)				555.99	
	TOTAL				3169.97	Y
	Add 15% CPOH on "Y"				475.50	
	TOTAL				3645.47	Z
	Add Cess @ 1% on "Z"				36.45	
	Cost of 1.00 quintal				3681.92	
	Cost of 1.00 kg				36.82	
	Say				36.80	

15.37 Dismantling wooden trellis work excluding frames but including stacking the serviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				455.80	W
	Add 1 % Water charges on "W"				4.56	
	TOTAL				460.36	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				97.92	
	TOTAL				558.28	Y
	Add 15% CPOH on "Y"				83.74	
	TOTAL				642.02	Z
	Add Cess @ 1% on "Z"				6.42	
	Cost of 10.00 sqm				648.44	
	Cost of 1.00 sqm				64.84	
	Say				64.85	

15.38 Dismantling expanded metal or I.R.C. fabrics with necessary battens and beading including stacking the serviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.40	736.00	294.40	
0115	Coolie	day	0.20	736.00	147.20	
9999	Sundries	L.S.	4.16	2.27	9.44	
	TOTAL				532.64	W
	Add 1 % Water charges on "W"				5.33	
	TOTAL				537.97	X
	Add GST on "X" (multiplying factor 0.2127)				114.43	
	TOTAL				652.40	Y
	Add 15% CPOH on "Y"				97.86	
	TOTAL				750.26	Z
	Add Cess @ 1% on "Z"				7.50	
	Cost of 10.00 sqm				757.76	
	Cost of 1.00 sqm				75.78	
	Say				75.80	

15.39 Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :

15.39.1 Up to 10 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.15	816.00	122.40	
0114	Beldar	day	0.20	736.00	147.20	
0115	Coolie	day	0.20	736.00	147.20	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				428.90	W
	Add 1 % Water charges on "W"				4.29	
	TOTAL				433.19	X
	Add GST on "X" (multiplying factor 0.2127)				92.14	
	TOTAL				525.33	Y
	Add 15% CPOH on "Y"				78.80	
	TOTAL				604.13	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on “Z”				6.04	
	Cost of 10.00 sqm				610.17	
	Cost of 1.00 sqm				61.02	
	Say				61.00	

15.39.2 Thickness above 10 mm up to 25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	0.25	736.00	184.00	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				546.55	W
	Add 1 % Water charges on “W”				5.47	
	TOTAL				552.02	X
	Add GST on “X” (multiplying factor 0.2127)				117.41	
	TOTAL				669.43	Y
	Add 15% CPOH on “Y”				100.41	
	TOTAL				769.84	Z
	Add Cess @ 1% on “Z”				7.70	
	Cost of 10.00 sqm				777.54	
	Cost of 1.00 sqm				77.75	
	Say				77.75	

15.39.3 Thickness above 25 mm up to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.30	736.00	220.80	
0115	Coolie	day	0.30	736.00	220.80	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				635.20	W
	Add 1 % Water charges on “W”				6.35	
	TOTAL				641.55	X
	Add GST on “X” (multiplying factor 0.2127)				136.46	
	TOTAL				778.01	Y
	Add 15% CPOH on “Y”				116.70	
	TOTAL				894.71	Z
	Add Cess @ 1% on “Z”				8.95	
	Cost of 10.00 sqm				903.66	
	Cost of 1.00 sqm				90.37	
	Say				90.35	

15.40 Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :

15.40.1 Thickness up to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	2.00	736.00	1472.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries	L.S.	13.39	2.27	30.40	
	TOTAL				2033.60	W
	Add 1 % Water charges on “W”				20.34	
	TOTAL				2053.94	X
	Add GST on “X” (multiplying factor 0.2127)				436.87	
	TOTAL				2490.81	Y
	Add 15% CPOH on “Y”				373.62	
	TOTAL				2864.43	Z
	Add Cess @ 1% on “Z”				28.64	
	Cost of 10.00 sqm				2893.07	
	Cost of 1.00 sqm				289.31	
	Say				289.30	

15.40.2 Thickness above 40 mm up to 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason 2nd class	day	0.30	816.00	244.80	
0114	Beldar	day	3.00	736.00	2208.00	
0115	Coolie	day	0.75	736.00	552.00	
9999	Sundries	L.S.	18.85	2.27	42.79	
	TOTAL				3047.59	W
	Add 1 % Water charges on “W”				30.48	
	TOTAL				3078.07	X
	Add GST on “X” (multiplying factor 0.2127)				654.71	
	TOTAL				3732.78	Y
	Add 15% CPOH on “Y”				559.92	
	TOTAL				4292.70	Z
	Add Cess @ 1% on “Z”				42.93	
	Cost of 10.00 sqm				4335.63	
	Cost of 1.00 sqm				433.56	
	Say				433.55	

15.41 Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm.					
	LABOUR					
0112	Carpenter 2nd class	day	0.20	816.00	163.20	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				396.10	W
	Add 1 % Water charges on “W”				3.96	
	TOTAL				400.06	X
	Add GST on “X” (multiplying factor 0.2127)				85.09	
	TOTAL				485.15	Y
	Add 15% CPOH on “Y”				72.77	
	TOTAL				557.92	Z
	Add Cess @ 1% on “Z”				5.58	
	Cost of 10.00 sqm.				563.50	
	Cost of 1.00 sqm.				56.35	
	Say				56.35	

15.42 Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :

15.42.1 75 to 80 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.36	736.00	264.96	
0115	Coolie	day	0.36	736.00	264.96	
9999	Sundries	L.S.	0.91	2.27	2.07	
	TOTAL				531.99	W
	Add 1 % Water charges on “W”				5.32	
	TOTAL				537.31	X
	Add GST on “X” (multiplying factor 0.2127)				114.29	
	TOTAL				651.60	Y
	Add 15% CPOH on “Y”				97.74	
	TOTAL				749.34	Z
	Add Cess @ 1% on “Z”				7.49	
	Cost of 10.00 metre				756.83	
	Cost of 1.00 metre				75.68	
	Say				75.70	

15.42.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.36	736.00	264.96	
0115	Coolie	day	0.38	736.00	279.68	
9999	Sundries	L.S.	1.56	2.27	3.54	
	TOTAL				548.18	W
	Add 1 % Water charges on “W”				5.48	
	TOTAL				553.66	X
	Add GST on “X” (multiplying factor 0.2127)				117.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				671.42	Y
	Add 15% CPOH on "Y"				100.71	
	TOTAL				772.13	Z
	Add Cess @ 1% on "Z"				7.72	
	Cost of 10.00 metre				779.85	
	Cost of 1.00 metre				77.99	
	Say				78.00	

15.42.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.36	736.00	264.96	
0115	Coolie	day	0.40	736.00	294.40	
9999	Sundries	L.S.	2.08	2.27	4.72	
	TOTAL				564.08	W
	Add 1 % Water charges on "W"				5.64	
	TOTAL				569.72	X
	Add GST on "X" (multiplying factor 0.2127)				121.18	
	TOTAL				690.90	Y
	Add 15% CPOH on "Y"				103.64	
	TOTAL				794.54	Z
	Add Cess @ 1% on "Z"				7.95	
	Cost of 10.00 metre				802.49	
	Cost of 1.00 metre				80.25	
	Say				80.25	

15.43 Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.43.1 Water bound macadam road

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 36 sqm					
	Consider a road 6 metres wide and 6 metres length wise 25 cm average depth = 9.00 cubic metre					
	LABOUR					
	For cutting road taking out soiling and metalling including sorting and screening					
0114	Beldar	day	4.80	736.00	3532.80	
0115	Coolie	day	2.40	736.00	1766.40	
9999	Labour for stacking of serviceable material and disposal of unserviceable material within 50 metres lead	L.S.	89.70	2.27	203.62	
	TOTAL				5502.82	W
	Add 1 % Water charges on "W"				55.03	
	TOTAL				5557.85	X
	Add GST on "X" (multiplying factor 0.2127)				1182.15	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				6740.00	Y
	Add 15% CPOH on "Y"				1011.00	
	TOTAL				7751.00	Z
	Add Cess @ 1% on "Z"				77.51	
	Cost of 36.00 sqm				7828.51	
	Cost of 1.00 sqm				217.46	
	Say				217.45	

15.43.2 bituminous road

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 36 sqm					
	Consider a road 6 metres wide and 6 metres length wise 30 cm average depth =10.80 cubic metre					
	LABOUR					
	For cutting road taking out soiling and metalling including sorting and screening					
0114	Beldar	day	9.60	736.00	7065.60	
0115	Coolie	day	4.80	736.00	3532.80	
9999	Labour for stacking of serviceable material and disposal of unserviceable material within 50 metres lead	L.S.	107.64	2.27	244.34	
	TOTAL				10842.74	W
	Add 1 % Water charges on "W"				108.43	
	TOTAL				10951.17	X
	Add GST on "X" (multiplying factor 0.2127)				2329.31	
	TOTAL				13280.48	Y
	Add 15% CPOH on "Y"				1992.07	
	TOTAL				15272.55	Z
	Add Cess @ 1% on "Z"				152.73	
	Cost of 36.00 sqm				15425.28	
	Cost of 1.00 sqm				428.48	
	Say				428.50	

15.44 Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :

15.44.1 15 mm to 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
	Trenching and refilling etc					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
9999	Dismantling G.I. pipe and stacking etc	L.S.	35.88	2.27	81.45	
	TOTAL				1052.97	W
	Add 1 % Water charges on "W"				10.53	
	TOTAL				1063.50	X
	Add GST on "X" (multiplying factor 0.2127)				226.21	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1289.71	Y
	Add 15% CPOH on "Y"				193.46	
	TOTAL				1483.17	Z
	Add Cess @ 1% on "Z"				14.83	
	Cost of 10.00 metre				1498.00	
	Cost of 1.00 metre				149.80	
	Say				149.80	

15.44.2 Above 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
	Trenching and refilling etc					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
9999	Dismantling G.I. pipe and stacking etc	L.S.	71.76	2.27	162.90	
	TOTAL				1134.42	W
	Add 1 % Water charges on "W"				11.34	
	TOTAL				1145.76	X
	Add GST on "X" (multiplying factor 0.2127)				243.70	
	TOTAL				1389.46	Y
	Add 15% CPOH on "Y"				208.42	
	TOTAL				1597.88	Z
	Add Cess @ 1% on "Z"				15.98	
	Cost of 10.00 metre				1613.86	
	Cost of 1.00 metre				161.39	
	Say				161.40	

15.45 Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:

15.45.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.55x0.75 m =16.61cum					
	Deduct for pipes of average 100 mm dia					
	=1x40.26x(22/7)/4x(0.118)x(0.118) =0.44cum					
	Total =16.17cum					
	LABOUR					
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	16.17	260.30	4209.05	A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	16.17	196.00	3169.32	A
0761	Fuel wood	quintal	0.46	550.00	253.00	
0771	Kerosene oil	litre	0.38	50.00	19.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0117	Assistant Fitter or 2nd class Fitter	day	0.63	816.00	514.08	
0114	Beldar	day	4.50	736.00	3312.00	
9977	Carriage	L.S.	53.82	2.27	122.17	
	TOTAL				11598.62	W
	Add 1 % Water charges on “W-A”				42.20	
	TOTAL				11640.82	X
	Add GST on “X-A” (multiplying factor 0.2127)				906.62	
	TOTAL				12547.44	Y
	Add 15% CPOH on “Y-A”				775.36	
	TOTAL				13322.80	Z
	Add Cess @ 1% on “Z-A”				59.44	
	Cost of 40.26 metre				13382.24	
	Cost of 1.00 metre				332.40	
	Say				332.40	

15.45.2 Above 150 mm dia up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.65x0.75 m =19.63cum					
	Deduct for pipes of average 250 mm dia					
	=1x40.26x(22/7)/4x(0.274)x(0.274) =2.37cum					
	Total =17.26cum					
	LABOUR					
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	17.26	260.30	4492.78	A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	17.26	196.00	3382.96	A
0761	Fuel wood	quintal	1.03	550.00	566.50	
0771	Kerosene oil	litre	1.14	50.00	57.00	
0117	Assistant Fitter or 2nd class Fitter	day	1.30	816.00	1060.80	
0114	Beldar	day	7.50	736.00	5520.00	
9977	Carriage	L.S.	80.73	2.27	183.26	
	TOTAL				15263.30	W
	Add 1 % Water charges on “W-A”				73.88	
	TOTAL				15337.18	X
	Add GST on “X-A” (multiplying factor 0.2127)				1587.05	
	TOTAL				16924.23	Y
	Add 15% CPOH on “Y-A”				1357.27	
	TOTAL				18281.50	Z
	Add Cess @ 1% on “Z-A”				104.06	
	Cost of 40.26 metre				18385.56	
	Cost of 1.00 metre				456.67	
	Say				456.65	

15.45.3 Above 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.85x0.75 m =25.67cum					
	Deduct for pipes of average 450 mm dia					
	=1x40.26x(22/7)/4x(0.48)x(0.48) =7.29cum					
	Total =18.38cum					
	LABOUR					
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	18.38	260.30	4784.31	A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	18.38	196.00	3602.48	A
0761	Fuel wood	quintal	1.40	550.00	770.00	
0771	Kerosene oil	litre	2.27	50.00	113.50	
0117	Assistant Fitter or 2nd class Fitter	day	2.25	816.00	1836.00	
0114	Beldar	day	11.50	736.00	8464.00	
9988	Carriage and sundries	L.S.	134.55	2.27	305.43	
	TOTAL				19875.72	W
	Add 1 % Water charges on “W-A”				114.89	
	TOTAL				19990.61	X
	Add GST on “X-A” (multiplying factor 0.2127)				2468.13	
	TOTAL				22458.74	Y
	Add 15% CPOH on “Y-A”				2110.79	
	TOTAL				24569.53	Z
	Add Cess @ 1% on “Z-A”				161.83	
	Cost of 40.26 metre				24731.36	
	Cost of 1.00 metre				614.29	
	Say				614.30	

15.46 Dismantling steel cylinder R.C. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metres lead as per direction of Engineer-in-charge :

15.46.1 Up to 600 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x1.30x1.65 m =86.36cum					
	Deduct for pipes of average 450 mm dia					
	=1x40.26x(22/7)/4x(0.48)x(0.48) =7.29cum					
	Total=79.07cum					
	LABOUR					
0114	Beldar	day	5.32	736.00	3915.52	
0115	Coolie	day	5.46	736.00	4018.56	
0101	Bhisti	day	0.31	816.00	252.96	
0761	Fuel wood	quintal	1.40	550.00	770.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0771	Kerosene oil	litre	2.27	50.00	113.50	
0117	Assistant Fitter or 2nd class Fitter	day	2.25	816.00	1836.00	
0114	Beldar	day	11.50	736.00	8464.00	
9988	Carriage and sundries	L.S.	134.55	2.27	305.43	
	TOTAL				19675.97	W
	Add 1 % Water charges on “W”				196.76	
	TOTAL				19872.73	X
	Add GST on “X” (multiplying factor 0.2127)				4226.93	
	TOTAL				24099.66	Y
	Add 15% CPOH on “Y”				3614.95	
	TOTAL				27714.61	Z
	Add Cess @ 1% on “Z”				277.15	
	Cost of 40.26 metre				27991.76	
	Cost of 1.00 metre				695.27	
	Say				695.25	

15.46.2 Above 600 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x1.30x1.65 m =86.36cum					
	Deduct for pipes of average 900 mm dia					
	=1x40.26x(22/7)/4x(1.00)x(1.00) =31.63cum					
	Total=54.73cum					
	LABOUR					
0114	Beldar	day	15.82	736.00	11643.52	
0115	Coolie	day	16.25	736.00	11960.00	
0101	Bhisti	day	0.93	816.00	758.88	
0761	Fuel wood	quintal	3.08	550.00	1694.00	
0771	Kerosene oil	litre	5.00	50.00	250.00	
0117	Assistant Fitter or 2nd class Fitter	day	10.00	816.00	8160.00	
0114	Beldar	day	20.00	736.00	14720.00	
9988	Carriage and sundries	L.S.	179.40	2.27	407.24	
	TOTAL				49593.64	W
	Add 1 % Water charges on “W”				495.94	
	TOTAL				50089.58	X
	Add GST on “X” (multiplying factor 0.2127)				10654.05	
	TOTAL				60743.63	Y
	Add 15% CPOH on “Y”				9111.54	
	TOTAL				69855.17	Z
	Add Cess @ 1% on “Z”				698.55	
	Cost of 40.26 metre				70553.72	
	Cost of 1.00 metre				1752.45	
	Say				1752.45	

15.47 Dismantling asbestos cement pressure pipes including excavation and refilling trenches after taking out the pipes manually/ by mechanical means and stacking the pipes within 50 metres lead as per direction of Engineer-in-charge :

15.47.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 10.00x0.55x0.75 m =4.125cum					
	Deduct for pipes of average 100 mm dia					
	=1x10x(22/7)/4x(0.118)x(0.118) =0.109cum					
	Total=4.016cum					
	LABOUR					
0114	Beldar	day	1.16	736.00	853.76	
0115	Coolie	day	1.19	736.00	875.84	
0101	Bhisti	day	0.07	816.00	57.12	
0114	Beldar	day	0.36	736.00	264.96	
0115	Coolie	day	0.38	736.00	279.68	
9988	Carriage and sundries	L.S.	1.56	2.27	3.54	
	TOTAL				2334.90	W
	Add 1 % Water charges on “W”				23.35	
	TOTAL				2358.25	X
	Add GST on “X” (multiplying factor 0.2127)				501.60	
	TOTAL				2859.85	Y
	Add 15% CPOH on “Y”				428.98	
	TOTAL				3288.83	Z
	Add Cess @ 1% on “Z”				32.89	
	Cost of 10.00 metre				3321.72	
	Cost of 1.00 metre				332.17	
	Say				332.15	

15.47.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre or 11 nos joints					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 10.00x0.65x0.75 m =4.88cum					
	Deduct for pipes of average 250 mm dia					
	=1x10x(22/7)/4x(0.274)x(0.274) =0.590cum					
	Total=4.29cum					
	LABOUR					
0114	Beldar	day	1.24	736.00	912.64	
0115	Coolie	day	1.28	736.00	942.08	
0101	Bhisti	day	0.07	816.00	57.12	
0114	Beldar	day	0.36	736.00	264.96	
0115	Coolie	day	0.88	736.00	647.68	
9988	Carriage and sundries	L.S.	3.77	2.27	8.56	
	TOTAL				2833.04	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				28.33	
	TOTAL				2861.37	X
	Add GST on "X" (multiplying factor 0.2127)				608.61	
	TOTAL				3469.98	Y
	Add 15% CPOH on "Y"				520.50	
	TOTAL				3990.48	Z
	Add Cess @ 1% on "Z"				39.90	
	Cost of 10.00 metre				4030.38	
	Cost of 1.00 metre				403.04	
	Say				403.05	

15.48 Taking out C.I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 man hole					
	Demolition of R.C.C. slab 1.3x1.2x0.15 m =0.234cum					
	Less cover 0.61x0.455x0.15 m =0.042cum					
	Net Quantity =0.192cum					
	LABOUR					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.14	736.00	103.04	
9999	Removel of C.I. Cover with frame including stacking	L.S.	1.30	2.27	2.95	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				490.22	W
	Add 1 % Water charges on "W"				4.90	
	TOTAL				495.12	X
	Add GST on "X" (multiplying factor 0.2127)				105.31	
	TOTAL				600.43	Y
	Add 15% CPOH on "Y"				90.06	
	TOTAL				690.49	Z
	Add Cess @ 1% on "Z"				6.90	
	Cost of each				697.39	
	Say				697.40	

15.49 Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 man hole					
	Demolition of R.C.C. slab					
	1.1x0.9x0.15 m =0.148cum					
	Less cover 0.61x0.455x0.15 m =0.042cum					
	=0.106cum Say 0.11cum					
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.29	736.00	213.44	
0115	Coolie	day	0.08	736.00	58.88	
9999	Removel of C.I. Cover with frame including stacking	L.S.	0.65	2.27	1.48	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				285.90	W
	Add 1 % Water charges on “W”				2.86	
	TOTAL				288.76	X
	Add GST on “X” (multiplying factor 0.2127)				61.42	
	TOTAL				350.18	Y
	Add 15% CPOH on “Y”				52.53	
	TOTAL				402.71	Z
	Add Cess @ 1% on “Z”				4.03	
	Cost of each				406.74	
	Say				406.75	

15.50 Dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refilling the excavated gap, stacking the useful materials near the site and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	Dismantling cement concrete					
	1:4:8 0.90x0.90x1.35m =1.094cum					
	Less shaft 1/4x22/7x(0.450)x(0.450)x					
	1.10 m =0.175cum					
	=0.919cum Say 0.92cum					
	Dismantling cement concrete					
	1:2:4 0.90x0.90x0.15m =0.122cum					
	Less shaft 1/4x22/7x0.15x0.45 m=0.024cum					
	=0.098cum Say 0.10cum					
	LABOUR					
0114	Beldar	day	0.81	736.00	596.16	
0115	Coolie	day	0.51	736.00	375.36	
9999	Sundries	L.S.	1.82	2.27	4.13	
0114	Beldar	day	0.16	736.00	117.76	
0115	Coolie	day	0.07	736.00	51.52	
9999	Sundries	L.S.	0.52	2.27	1.18	
0130	Mistry	day	0.25	897.00	224.25	
0123	Mason 1st class	day	0.12	897.00	107.64	
0124	Mason 2nd class	day	0.12	816.00	97.92	
0100	Bandhani	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
9999	Sundries for scaffolding etc	L.S.	53.82	2.27	122.17	
	TOTAL				3250.09	W
	Add 1 % Water charges on “W”				32.50	
	TOTAL				3282.59	X
	Add GST on “X” (multiplying factor 0.2127)				698.21	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				3980.80	Y
	Add 15% CPOH on "Y"				597.12	
	TOTAL				4577.92	Z
	Add Cess @ 1% on "Z"				45.78	
	Cost of each				4623.70	
	Say				4623.70	

15.51 Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead including refilling the excavated gap.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one chamber					
	Dismantling cement concrete					
	a) 1:5:10 1.05x1.00x0.15m =0.16cum					
	Dismantling brick work in cement mortar					
	2.70x0.20x0.45m =0.24cum					
	Dismantling cement concrete					
	b) 1:2:4 2.70x0.20x0.15m =0.08cum					
	LABOUR					
0114	Beldar	day	0.14	736.00	103.04	
0115	Coolie	day	0.09	736.00	66.24	
9999	Sundries	L.S.	0.26	2.27	0.59	
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	0.22	736.00	161.92	
9999	Sundries	L.S.	0.52	2.27	1.18	
0114	Beldar	day	0.13	736.00	95.68	
0115	Coolie	day	0.06	736.00	44.16	
9999	Sundries for scaffolding etc	L.S.	0.39	2.27	0.89	
9999	Dismantling C.I. Grating	L.S.	7.15	2.27	16.23	
	TOTAL				673.93	W
	Add 1 % Water charges on "W"				6.74	
	TOTAL				680.67	X
	Add GST on "X" (multiplying factor 0.2127)				144.78	
	TOTAL				825.45	Y
	Add 15% CPOH on "Y"				123.82	
	TOTAL				949.27	Z
	Add Cess @ 1% on "Z"				9.49	
	Cost of each				958.76	
	Say				958.75	

15.52 Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for each					
	LABOUR					
0117	Fitter (grade 2)	day	0.05	816.00	40.80	
0114	Beldar	day	0.05	736.00	36.80	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	0.52	2.27	1.18	
	TOTAL				78.78	W
	Add 1 % Water charges on “W”				0.79	
	TOTAL				79.57	X
	Add GST on “X” (multiplying factor 0.2127)				16.92	
	TOTAL				96.49	Y
	Add 15% CPOH on “Y”				14.47	
	TOTAL				110.96	Z
	Add Cess @ 1% on “Z”				1.11	
	Cost of each				112.07	
	Say				112.05	

15.53 Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres

15.53.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for dismantling 10 sluice valves (ave.) 100mm LABOUR					
0116	Fitter (grade 1)	day	0.60	897.00	538.20	
0117	Assistant Fitter or 2nd class Fitter	day	0.40	816.00	326.40	
0114	Beldar	day	1.60	736.00	1177.60	
9999	Sundries for removing the R.C.C. cover etc for dismantling sluice valve	L.S.	89.70	2.27	203.62	
	TOTAL				2245.82	W
	Add 1 % Water charges on “W”				22.46	
	TOTAL				2268.28	X
	Add GST on “X” (multiplying factor 0.2127)				482.46	
	TOTAL				2750.74	Y
	Add 15% CPOH on “Y”				412.61	
	TOTAL				3163.35	Z
	Add Cess @ 1% on “Z”				31.63	
	Cost of 10 Nos				3194.98	
	Cost of each				319.50	
	Say				319.50	

15.53.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for dismantling 10 sluice valves (ave.) 250mm LABOUR					
0116	Fitter (grade 1)	day	2.40	897.00	2152.80	
0117	Assistant Fitter or 2nd class Fitter	day	1.54	816.00	1256.64	
0114	Beldar	day	6.40	736.00	4710.40	
9999	Sundries for removing the R.C.C. cover etc for dismantling sluice valve	L.S.	89.70	2.27	203.62	
	TOTAL				8323.46	W
	Add 1 % Water charges on “W”				83.23	
	TOTAL				8406.69	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				1788.10	
	TOTAL				10194.79	Y
	Add 15% CPOH on “Y”				1529.22	
	TOTAL				11724.01	Z
	Add Cess @ 1% on “Z”				117.24	
	Cost of 10 Nos				11841.25	
	Cost of each				1184.13	
	Say				1184.15	

15.54 Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 Nos					
	LABOUR					
0116	Fitter (grade 1)	day	1.50	897.00	1345.50	
0117	Assistant Fitter or 2nd class Fitter	day	1.00	816.00	816.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				5105.50	W
	Add 1 % Water charges on “W”				51.06	
	TOTAL				5156.56	X
	Add GST on “X” (multiplying factor 0.2127)				1096.80	
	TOTAL				6253.36	Y
	Add 15% CPOH on “Y”				938.00	
	TOTAL				7191.36	Z
	Add Cess @ 1% on “Z”				71.91	
	Cost of 10 Nos				7263.27	
	Cost of each				726.33	
	Say				726.35	

15.55 Dismantling of cement concrete platform along with curtain walls and base concrete etc. including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead :

15.55.1 120 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one platform					
	Dismantling cement concrete 1:5:10					
	4.00x0.35x0.12m =0.168cum					
	0.80x0.80x0.075m =0.048cum					
	=0.216cum Say 0.22cum					
	Dismantling brick work in cement mortar					
	4.00x0.20x0.30m =0.24cum					
	4.00x0.10x0.20m =0.088cum					
	=0.328cum Say 0.33cum					
	Dismantling 40 mm C.C. flooring 1:2:4					
	1.00x1.00x0.04m =0.04cum					
	LABOUR					
0114	Beldar	day	0.19	736.00	139.84	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	0.12	736.00	88.32	
9999	Sundries	L.S.	0.39	2.27	0.89	
0114	Beldar	day	0.35	736.00	257.60	
0115	Coolie	day	0.30	736.00	220.80	
9999	Sundries	L.S.	0.91	2.27	2.07	
0114	Beldar	day	0.06	736.00	44.16	
0115	Coolie	day	0.03	736.00	22.08	
9999	Sundries for scaffolding etc	L.S.	0.13	2.27	0.30	
	TOTAL				776.06	W
	Add 1 % Water charges on “W”				7.76	
	TOTAL				783.82	X
	Add GST on “X” (multiplying factor 0.2127)				166.72	
	TOTAL				950.54	Y
	Add 15% CPOH on “Y”				142.58	
	TOTAL				1093.12	Z
	Add Cess @ 1% on “Z”				10.93	
	Cost of each				1104.05	
	Say				1104.05	

15.55.2 210 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one platform					
	Dismantling cement concrete 1:5:10					
	5.80x0.35x0.12m =0.243cum					
	0.80x1.70x0.075m =0.102cum					
	=0.345cum Say 0.35cum					
	Dismantling brick work in cement mortar					
	5.80x0.20x0.30m =0.348cum					
	6.20x0.10x0.20m =0.124cum					
	=0.472cum Say 0.47cum					
	Dismantling 40 mm C.C. flooring 1:2:4					
	1.90x1.00x0.04m =0.08cum					
	LABOUR					
0114	Beldar	day	0.31	736.00	228.16	
0115	Coolie	day	0.19	736.00	139.84	
9999	Sundries	L.S.	0.65	2.27	1.48	
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.42	736.00	309.12	
9999	Sundries	L.S.	1.30	2.27	2.95	
0114	Beldar	day	0.13	736.00	95.68	
0115	Coolie	day	0.06	736.00	44.16	
9999	Sundries for scaffolding etc	L.S.	0.39	2.27	0.89	
	TOTAL				1190.28	W
	Add 1 % Water charges on “W”				11.90	
	TOTAL				1202.18	X
	Add GST on “X” (multiplying factor 0.2127)				255.70	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1457.88	Y
	Add 15% CPOH on “Y”				218.68	
	TOTAL				1676.56	Z
	Add Cess @ 1% on “Z”				16.77	
	Cost of each				1693.33	
	Say				1693.35	

15.55.3 320 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one platform					
	Dismantling cement concrete 1:5:10					
	8.00x0.35x0.12m =0.336cum					
	2.80x0.80x0.075m =0.168cum					
	=0.504cum Say 0.50cum					
	Dismantling brick work in cement mortar					
	8.00x0.20x0.30m =0.48cum					
	8.40x0.10x0.20m =0.168cum					
	=0.648cum Say 0.65cum					
	Dismantling 40 mm C.C. flooring 1:2:4					
	3.00x1.00x0.04m =0.12cum					
	LABOUR					
0114	Beldar	day	0.44	736.00	323.84	
0115	Coolie	day	0.28	736.00	206.08	
9999	Sundries	L.S.	0.91	2.27	2.07	
0114	Beldar	day	0.69	736.00	507.84	
0115	Coolie	day	0.59	736.00	434.24	
9999	Sundries	L.S.	1.56	2.27	3.54	
0114	Beldar	day	0.19	736.00	139.84	
0115	Coolie	day	0.09	736.00	66.24	
9999	Sundries for scaffolding etc	L.S.	0.52	2.27	1.18	
	TOTAL				1684.87	W
	Add 1 % Water charges on “W”				16.85	
	TOTAL				1701.72	X
	Add GST on “X” (multiplying factor 0.2127)				361.96	
	TOTAL				2063.68	Y
	Add 15% CPOH on “Y”				309.55	
	TOTAL				2373.23	Z
	Add Cess @ 1% on “Z”				23.73	
	Cost of each				2396.96	
	Say				2396.95	

15.56 Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	0.36	736.00	264.96	
0115	Coolie	day	0.08	736.00	58.88	
0101	Bhisti	day	0.07	816.00	57.12	
9999	Sundries for scaffolding etc	L.S.	1.43	2.27	3.25	
	TOTAL				384.21	W
	Add 1 % Water charges on “W”				3.84	
	TOTAL				388.05	X
	Add GST on “X” (multiplying factor 0.2127)				82.54	
	TOTAL				470.59	Y
	Add 15% CPOH on “Y”				70.59	
	TOTAL				541.18	Z
	Add Cess @ 1% on “Z”				5.41	
	Cost of 10.00 sqm				546.59	
	Cost of 1.00 sqm				54.66	
	Say				54.65	

15.57 Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	5.38	2.27	12.21	
	TOTAL				396.21	W
	Add 1 % Water charges on “W”				3.96	
	TOTAL				400.17	X
	Add GST on “X” (multiplying factor 0.2127)				85.12	
	TOTAL				485.29	Y
	Add 15% CPOH on “Y”				72.79	
	TOTAL				558.08	Z
	Add Cess @ 1% on “Z”				5.58	
	Cost of 10.00 sqm				563.66	
	Cost of 1.00 sqm				56.37	
	Say				56.35	

15.58 Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum					
	LABOUR					
0128	Mate	day	0.03	816.00	24.48	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for operating pneumatic tools					
0139	Skilled Beldar (for floor rubbing etc.)	day	0.50	816.00	408.00	
0114	Beldar	day	0.50	736.00	368.00	
	Labour for cutting reinforcement bars.					
0103	Blacksmith 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	0.50	736.00	368.00	
	MACHINERY					
0040	Air compressor 250 cfm with two leads for pneumatic cutters/ hammers.	day	0.125	1800.00	225.00	
0039	Tractor with trolley .	day	0.05	1350.00	67.50	
0041	Joint cutting machine with 2-3 blades	day	0.125	900.00	112.50	
	TOTAL				1981.48	W
	Add 1 % Water charges on “W”				19.81	
	TOTAL				2001.29	X
	Add GST on “X” (multiplying factor 0.2127)				425.67	
	TOTAL				2426.96	Y
	Add 15% CPOH on “Y”				364.04	
	TOTAL				2791.00	Z
	Add Cess @ 1% on “Z”				27.91	
	Cost of 1 cum				2818.91	
	Say				2818.90	

15.59 Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 cum					
	LABOUR					
0128	Mate	day	0.100	816.00	81.60	
0114	Beldar	day	3.000	736.00	2208.00	
	MACHINERY					
0039	Tractor with trolley .	day	0.475	1350.00	641.25	
0038	Tractor with ripper attachment.	day	0.020	1350.00	27.00	
	TOTAL				2957.85	W
	Add 1 % Water charges on “W”				29.58	
	TOTAL				2987.43	X
	Add GST on “X” (multiplying factor 0.2127)				635.43	
	TOTAL				3622.86	Y
	Add 15% CPOH on “Y”				543.43	
	TOTAL				4166.29	Z
	Add Cess @ 1% on “Z”				41.66	
	Cost of 10 cum				4207.95	
	Cost of 1 cum				420.80	
	Say				420.80	

15.60 Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum					
2264	Carriage of Rubbish	cum	1.00	185.55	185.55	
	TOTAL				185.55	W
	Add 1 % Water charges on “W”				1.86	
	TOTAL				187.41	X
	Add GST on “X” (multiplying factor 0.2127)				39.86	
	TOTAL				227.27	Y
	Add 15% CPOH on “Y”				34.09	
	TOTAL				261.36	Z
	Add Cess @ 1% on “Z”				2.61	
	Cost of 1 cum				263.97	
	Say				263.95	

SUB HEAD : 16.0

ROAD WORK

16.1 Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	(A) preparation of subgrade.					
	Earth work in excavation including dressing etc. 100sqm.x22.5cm (average depth) = 22.5cum.					
	LABOUR					
0128	Mate	day	1.80	816.00	1468.80	
0115	Coolie	day	18.00	736.00	13248.00	
0114	Beldar	day	0.27	736.00	198.72	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3350.00	180.90	
0113	Chowkidar	day	0.054	736.00	39.74	
9999	Sundries	L.S.	6.76	2.27	15.35	
	(B) Conslidation of subgrade					
	Roller charges (one roller does 1860 sqm. of conosolidation of sub - grade with road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spoils etc. and rerolling the subgrade					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3350.00	180.90	
0113	Chowkidar	day	0.054	736.00	39.74	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				15387.50	W
	Add 1 % Water charges on “W”				153.88	
	TOTAL				15541.38	X
	Add GST on “X” (multiplying factor 0.2127)				3305.65	
	TOTAL				18847.03	Y
	Add 15% CPOH on “Y”				2827.05	
	TOTAL				21674.08	Z
	Add Cess @ 1% on “Z”				216.74	
	Cost for 100 sqm.				21890.82	
	Cost per sqm.				218.91	
	Say				218.90	

16.2 Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
	(Extra to item No.2.3 in Earth work)					
0101	Bhisti	day	0.17	816.00	138.72	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Roller charges (one roller does 1860sqm. Of consolidation per day of 8 hours and uses 18 litres diesel)					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.008	3350.00	26.80	
0113	Chowkidar	day	0.008	736.00	5.89	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				174.66	W
	Add 1 % Water charges on “W”				1.75	
	TOTAL				176.41	X
	Add GST on “X” (multiplying factor 0.2127)				37.52	
	TOTAL				213.93	Y
	Add 15% CPOH on “Y”				32.09	
	TOTAL				246.02	Z
	Add Cess @ 1% on “Z”				2.46	
	Cost of 10 cum.				248.48	
	Cost per cum.				24.85	
	Say				24.85	

16.3 Supplying and stacking at site.

16.3.1 90 mm to 45 mm size stone aggregate

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2901	Stone Aggregate (Single size) : 100 mm nominal size	cum	0.10	1600.00	160.00	
2902	Stone Aggregate (Single size) : 80 mm nominal size	cum	0.65	1600.00	1040.00	
0291	Stone Aggregate (Single size) : 63 mm nominal size	cum	0.25	1100.00	275.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	1.00	0.00	0.00	
	TOTAL				1475.00	W
	Add 1 % Water charges on “W”				14.75	
	TOTAL				1489.75	X
	Add GST on “X” (multiplying factor 0.2127)				316.87	
	TOTAL				1806.62	Y
	Add 15% CPOH on “Y”				270.99	
	TOTAL				2077.61	Z
	Add Cess @ 1% on “Z”				20.78	
	Cost for 1 cum				2098.39	
	Say				2098.40	

16.3.2 63 mm to 45 mm size stone aggregate

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2902	Stone Aggregate (Single size) : 80 mm nominal size	cum	0.10	1600.00	160.00	
0291	Stone Aggregate (Single size) : 63 mm nominal size	cum	0.65	1100.00	715.00	
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	0.25	1100.00	275.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	1.00	0.00	0.00	
	TOTAL				1150.00	W
	Add 1 % Water charges on “W”				11.50	
	TOTAL				1161.50	X
	Add GST on “X” (multiplying factor 0.2127)				247.05	
	TOTAL				1408.55	Y
	Add 15% CPOH on “Y”				211.28	
	TOTAL				1619.83	Z
	Add Cess @ 1% on “Z”				16.20	
	Cost for 1 cum				1636.03	
	Say				1636.05	

16.3.3 53 mm to 22.4 mm size stone aggregate

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
0291	Stone Aggregate (Single size) : 63 mm nominal size	cum	0.05	1100.00	55.00	
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	0.30	1100.00	330.00	
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.65	1400.00	910.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	1.00	0.00	0.00	
	TOTAL				1295.00	W
	Add 1 % Water charges on “W”				12.95	
	TOTAL				1307.95	X
	Add GST on “X” (multiplying factor 0.2127)				278.20	
	TOTAL				1586.15	Y
	Add 15% CPOH on “Y”				237.92	
	TOTAL				1824.07	Z
	Add Cess @ 1% on “Z”				18.24	
	Cost for 1 cum				1842.31	
	Say				1842.30	

16.3.4 Over burnt (Jhama) brick aggregate 120 mm to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2908	Over burnt (Jhama) Brick Aggregate: 120 mm to 40 mm size	cum	1.00	561.00	561.00	
2260	Carriage of Brick aggregate	cum	1.00	0.00	0.00	
	TOTAL				561.00	W
	Add 1 % Water charges on “W”				5.61	
	TOTAL				566.61	X
	Add GST on “X” (multiplying factor 0.2127)				120.52	
	TOTAL				687.13	Y
	Add 15% CPOH on “Y”				103.07	
	TOTAL				790.20	Z
	Add Cess @ 1% on “Z”				7.90	
	Cost for 1 cum				798.10	
	Say				798.10	

16.3.5 Over burnt (Jhama) brick aggregate 90 mm to 45 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2909	Over burnt (Jhama) Brick Aggregate: 90 mm to 40 mm size	cum	1.00	613.00	613.00	
2260	Carriage of Brick aggregate	cum	1.00	0.00	0.00	
	TOTAL				613.00	W
	Add 1 % Water charges on “W”				6.13	
	TOTAL				619.13	X
	Add GST on “X” (multiplying factor 0.2127)				131.69	
	TOTAL				750.82	Y
	Add 15% CPOH on “Y”				112.62	
	TOTAL				863.44	Z
	Add Cess @ 1% on “Z”				8.63	
	Cost for 1 cum				872.07	
	Say				872.05	

16.3.6 Stone screening 13.2 mm nominal size (Type A)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.05	1400.00	70.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.80	1400.00	1120.00	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	0.15	1600.00	240.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	0.00	0.00	
	TOTAL				1430.00	W
	Add 1 % Water charges on “W”				14.30	
	TOTAL				1444.30	X
	Add GST on “X” (multiplying factor 0.2127)				307.20	
	TOTAL				1751.50	Y
	Add 15% CPOH on “Y”				262.73	
	TOTAL				2014.23	Z
	Add Cess @ 1% on “Z”				20.14	
	Cost for one cum.				2034.37	
	Say				2034.35	

16.3.7 Stone screening 11.2 mm nominal size (Type B)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.10	1400.00	140.00	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	0.75	1600.00	1200.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	0.15	1600.00	240.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	0.00	0.00	
2267	Carriage of Stone dust	cum	0.15	0.00	0.00	
	TOTAL				1580.00	W
	Add 1 % Water charges on “W”				15.80	
	TOTAL				1595.80	X
	Add GST on “X” (multiplying factor 0.2127)				339.43	
	TOTAL				1935.23	Y
	Add 15% CPOH on “Y”				290.28	
	TOTAL				2225.51	Z
	Add Cess @ 1% on “Z”				22.26	
	Cost for one cum.				2247.77	
	Say				2247.75	

16.3.8 Red bajri

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
0304	Bajri	cum	1.00	1100.00	1100.00	
2311	Carriage of Red bajri	cum	1.00	0.00	0.00	
	TOTAL				1100.00	W
	Add 1 % Water charges on “W”				11.00	
	TOTAL				1111.00	X
	Add GST on “X” (multiplying factor 0.2127)				236.31	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1347.31	Y
	Add 15% CPOH on “Y”				202.10	
	TOTAL				1549.41	Z
	Add Cess @ 1% on “Z”				15.49	
	Cost for one cum.				1564.90	
	Say				1564.90	

16.3.9 Good earth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	Excavation :					
	LABOUR					
0114	Beldar	day	0.177	736.00	130.27	
0115	Coolie	day	0.167	736.00	122.91	
0979	Royalty for good earth	cum	1.00	60.00	60.00	
2241	Carriage of Good earth	cum	1.00	231.93	231.93	
	by mechanical transport upto 5 km lead					
	TOTAL				545.11	W
	Add 1 % Water charges on “W”				5.45	
	TOTAL				550.56	X
	Add GST on “X” (multiplying factor 0.2127)				117.10	
	TOTAL				667.66	Y
	Add 15% CPOH on “Y”				100.15	
	TOTAL				767.81	Z
	Add Cess @ 1% on “Z”				7.68	
	Cost per cum.				775.49	
	Say				775.50	

16.3.10 Moorum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
0810	Moorum	cum	1.00	540.00	540.00	
2265	Carriage of Moorum	cum	1.00	0.00	0.00	
	TOTAL				540.00	W
	Add 1 % Water charges on “W”				5.40	
	TOTAL				545.40	X
	Add GST on “X” (multiplying factor 0.2127)				116.01	
	TOTAL				661.41	Y
	Add 15% CPOH on “Y”				99.21	
	TOTAL				760.62	Z
	Add Cess @ 1% on “Z”				7.61	
	Cost for one cum.				768.23	
	Say				768.25	

16.4 Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum					
	LABOUR					
0114	Beldar	day	0.26	736.00	191.36	
0115	Coolie	day	0.26	736.00	191.36	
0101	Bhisti	day	0.26	816.00	212.16	
	Roller charges (one roller does 30 cum consolidation per day of 8 hours and uses 18 litres of diesel oil).					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.033	3350.00	110.55	
0113	Chowkidar	day	0.033	736.00	24.29	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				735.92	W
	Add 1 % Water charges on “W”				7.36	
	TOTAL				743.28	X
	Add GST on “X” (multiplying factor 0.2127)				158.10	
	TOTAL				901.38	Y
	Add 15% CPOH on “Y”				135.21	
	TOTAL				1036.59	Z
	Add Cess @ 1% on “Z”				10.37	
	Cost for 1 cum				1046.96	
	Say				1046.95	

16.5 Laying water bound macadam sub-base with brick aggregate and binding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete. (payment for brick aggregate and moorum etc. to be made separately)

16.5.1 Over burnt (Jhama) brick aggregate 120 mm to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	LABOUR					
0114	Beldar	day	0.35	736.00	257.60	
0115	Coolie	day	0.26	736.00	191.36	
0101	Bhisti	Day	0.18	816.00	146.88	
	Roller charges (one roller does 230cum.					
	consolidation per day of 8 hours and uses 18 litres of diesel oil)					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.004	3350.00	13.40	
0113	Chowkidar	day	0.004	736.00	2.94	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				618.38	W
	Add 1 % Water charges on “W”				6.18	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				624.56	X
	Add GST on “X” (multiplying factor 0.2127)				132.84	
	TOTAL				757.40	Y
	Add 15% CPOH on “Y”				113.61	
	TOTAL				871.01	Z
	Add Cess @ 1% on “Z”				8.71	
	Cost for one cum.				879.72	
	Say				879.70	

16.5.2 Over burnt (Jhama) brick aggregate 90 mm to 45 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	LABOUR					
0114	Beldar	day	0.35	736.00	257.60	
0115	Coolie	day	0.26	736.00	191.36	
0101	Bhisti	day	0.18	816.00	146.88	
	Roller charges (one roller does 230cum. consolidation per day of 8 hours and uses 18 litres of diesel oil)					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.004	3350.00	13.40	
0113	Chowkidar	day	0.004	736.00	2.94	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				618.38	W
	Add 1 % Water charges on “W”				6.18	
	TOTAL				624.56	X
	Add GST on “X” (multiplying factor 0.2127)				132.84	
	TOTAL				757.40	Y
	Add 15% CPOH on “Y”				113.61	
	TOTAL				871.01	Z
	Add Cess @ 1% on “Z”				8.71	
	Cost for one cum.				879.72	
	Say				879.70	

16.6 Supplying, stacking and Spreading 6 mm thick red bajri, watering and rolling complete including preparation of the surface and rolling.

16.6.1 With road roller/ hand roller

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6 mm thick and 100 sqm area (A) Supplying and stacking of Red bajri at site. MATERIAL					
0304	Bajri	cum	0.60	1100.00	660.00	
2311	Carriage of Red bajri	cum	0.60	0.00	0.00	
	(B) Spreading of red bajri					
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.54	736.00	397.44	
0101	Bhisti	day	0.54	816.00	440.64	
	Roller charges (one roller does 1860sqm. consolidation per day of 8 hours and uses 18 litres of diesel oil)					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3350.00	180.90	
0113	Chowkidar	day	0.054	736.00	39.74	
	TOTAL				1718.72	W
	Add 1 % Water charges on “W”				17.19	
	TOTAL				1735.91	X
	Add GST on “X” (multiplying factor 0.2127)				369.23	
	TOTAL				2105.14	Y
	Add 15% CPOH on “Y”				315.77	
	TOTAL				2420.91	Z
	Add Cess @ 1% on “Z”				24.21	
	Cost for 100 sqm.				2445.12	
	Cost per sqm.				24.45	
	Say				24.45	

16.7 Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres.

16.7.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.16	4724.00	755.84	
2201	Carriage of Bricks	1000 Nos	0.16	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.17	897.00	152.49	
0124	Mason 2nd class	day	0.17	816.00	138.72	
0115	Coolie	day	0.35	736.00	257.60	
9999	Removal of rubbish	L.S.	17.94	2.27	40.72	
9999	Sundries	L.S.	8.97	2.27	20.36	
	TOTAL				1365.73	W
	Add 1 % Water charges on “W”				13.66	
	TOTAL				1379.39	X
	Add GST on “X” (multiplying factor 0.2127)				293.40	
	TOTAL				1672.79	Y
	Add 15% CPOH on “Y”				250.92	
	TOTAL				1923.71	Z
	Add Cess @ 1% on “Z”				19.24	
	Cost for 10 metre				1942.95	
	Cost per metre				194.30	
	Say				194.30	

16.8 Brick edging laid lengthwise with half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres:

16.8.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.049	4724.00	231.48	
2201	Carriage of Bricks	1000 Nos	0.049	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.04	897.00	35.88	
0124	Mason 2nd class	day	0.04	816.00	32.64	
0115	Coolie	day	0.09	736.00	66.24	
9999	Removal of rubbish	L.S.	4.16	2.27	9.44	
	TOTAL				375.68	W
	Add 1 % Water charges on “W”				3.76	
	TOTAL				379.44	X
	Add GST on “X” (multiplying factor 0.2127)				80.71	
	TOTAL				460.15	Y
	Add 15% CPOH on “Y”				69.02	
	TOTAL				529.17	Z
	Add Cess @ 1% on “Z”				5.29	
	Cost for 10 metre				534.46	
	Cost per metre				53.45	
	Say				53.45	

16.9 Scarifying metalled (water-bound) road surface including disposal of rubbish, lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	LABOUR					
0114	Beldar	day	1.35	736.00	993.60	
0115	Coolie	day	1.08	736.00	794.88	
	Consolidation of scarified material					
	100sqm.x50mm = 5cum +					
	Less 20% wastage = 1 cum.					
	= 4 cum.					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.132	3350.00	442.20	
0113	Chowkidar	day	0.132	736.00	97.15	
9999	Sundries	L.S.	5.46	2.27	12.39	
	TOTAL				2340.22	W
	Add 1 % Water charges on “W”				23.40	
	TOTAL				2363.62	X
	Add GST on “X” (multiplying factor 0.2127)				502.74	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2866.36	Y
	Add 15% CPOH on “Y”				429.95	
	TOTAL				3296.31	Z
	Add Cess @ 1% on “Z”				32.96	
	Cost for 100 sqm.				3329.27	
	Cost per sqm.				33.29	
	Say				33.30	

16.10 Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50 mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	Earth work in excavation including dressing etc. 100x0.075=7.5cum.					
2.6.1	(Rate as per item no.2.6.1 of S.H. Earth work)	cum	7.50	177.50	1331.25	A
	Collection and stacking of brick aggregate 53mm nominal size 100x0.075 =7.50cum.					
0286	Brick Aggregate (Single size) : 50 mm nominal size	cum	7.50	700.00	5250.00	
2260	Carriage of Brick aggregate	cum	7.50	0.00	0.00	
	Supply staking Red Bajri					
	100x0.012= 1.2 cum					
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	1.20	1564.90	1877.88	A
	Collection and stacking of moorum at site					
	100x0.012 = 1.20cum.					
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work	cum	1.20	768.25	921.90	A
	Spreading and consolidation of brick aggregate and blinding material etc.					
	LABOUR					
0114	Beldar	day	1.95	736.00	1435.20	
0115	Coolie	day	2.63	736.00	1935.68	
0101	Bhisti	day	1.35	816.00	1101.60	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.135	3350.00	452.25	
0113	Chowkidar	day	0.135	736.00	99.36	
9999	Sundries	L.S.	20.15	2.27	45.74	
	Spreading of red bajri, watering and rolling					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3350.00	180.90	
0113	Chowkidar	day	0.054	736.00	39.74	
	TOTAL				14671.50	W
	Add 1 % Water charges on “W-A”				105.40	
	TOTAL				14776.90	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				2264.38	
	TOTAL				17041.28	Y
	Add 15% CPOH on "Y-A"				1936.54	
	TOTAL				18977.82	Z
	Add Cess @ 1% on "Z-A"				148.47	
	Cost for 100 sqm.				19126.29	
	Cost per sqm.				191.26	
	Say				191.25	

16.11 Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
1158	Stone for pitching 15 cm x 22.5 cm	cum	2.25	700.00	1575.00	
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	5.05	0.00	0.00	
	2.25x2245/1000 = 5.05 t					
	LABOUR					
0123	Mason 1st class	day	1.08	897.00	968.76	
0124	Mason 2nd class	day	1.08	816.00	881.28	
0114	Beldar	day	2.15	736.00	1582.40	
0115	Coolie	day	1.61	736.00	1184.96	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				6207.75	W
	Add 1 % Water charges on "W"				62.08	
	TOTAL				6269.83	X
	Add GST on "X" (multiplying factor 0.2127)				1333.59	
	TOTAL				7603.42	Y
	Add 15% CPOH on "Y"				1140.51	
	TOTAL				8743.93	Z
	Add Cess @ 1% on "Z"				87.44	
	Cost for 10 sqm.				8831.37	
	Cost per sqm.				883.14	
	Say				883.15	

16.12 Dry brick pitching half brick thick in drains including supply of bricks and preparing the surface complete :

16.12.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	0.645	4724.00	3046.98	
2201	Carriage of Bricks	1000 Nos	0.645	0.00	0.00	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	0.40	897.00	358.80	
0124	Mason 2nd class	day	0.40	816.00	326.40	
0114	Beldar	day	1.08	736.00	794.88	
	TOTAL				4527.06	W
	Add 1 % Water charges on “W”				45.27	
	TOTAL				4572.33	X
	Add GST on “X” (multiplying factor 0.2127)				972.53	
	TOTAL				5544.86	Y
	Add 15% CPOH on “Y”				831.73	
	TOTAL				6376.59	Z
	Add Cess @ 1% on “Z”				63.77	
	Cost for 10 sqm.				6440.36	
	Cost per sqm.				644.04	
	Say				644.05	

16.13 Cutting road and making good the same including supply of extra quantities of materials i.e. aggregate, moorum screening, red bajri and labour required.

16.13.1 bituminous portion

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.08cum. (road 6 metres wide, 0.6 metre length wise and 0.30m (average depth) volume = 1.08 cum).					
	MATERIAL					
	Supplying and stacking stone aggregate 53mm to 24 mm nominal size at site.					
16.3.3	Rate as per Item Number 16.3.3 of SH: Road Work	cum	0.09	1842.30	165.81	A
	Supplying and stacking red bajri at site					
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.023	1564.90	35.99	A
	Supplying and stacking moorum at site					
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work	cum	0.022	768.25	16.90	A
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.092	1400.00	128.80	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.092	0.00	0.00	
0309	Paving bitumen VG-10 of approved quality	tonne	0.011	33530.00	368.83	
2211	Carriage of Tar bitumen	tonne	0.011	0.00	0.00	
	LABOUR					
	For cutting road and taking out soling and metalling including sorting and screening.					
0114	Beldar	day	0.96	736.00	706.56	
0115	Coolie	day	0.48	736.00	353.28	
	Relaying soling stone 3.6x0.15=0.54cum.					
0114	Beldar	day	0.24	736.00	176.64	
0115	Coolie	day	0.24	736.00	176.64	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Relaying road metal with extra quantity and consolidation to 0.10m, thickness 3.6x0.10=0.36cum.					
0114	Beldar	day	0.71	736.00	522.56	
0115	Coolie	day	0.48	736.00	353.28	
0101	Bhisti	day	0.10	816.00	81.60	
	Painting two coats, 3.6sqm. including labour for spreading grit					
0114	Beldar	day	0.48	736.00	353.28	
0115	Coolie	day	0.48	736.00	353.28	
9999	Barrier, chowkidar, sprayman, mate, etc.	L.S.	40.43	2.27	91.78	
	TOTAL				3885.23	W
	Add 1 % Water charges on “W-A”				36.67	
	TOTAL				3921.90	X
	Add GST on “X-A” (multiplying factor 0.2127)				787.67	
	TOTAL				4709.57	Y
	Add 15% CPOH on “Y-A”				673.63	
	TOTAL				5383.20	Z
	Add Cess @ 1% on “Z-A”				51.65	
	Cost for 1.08 cum.				5434.85	
	Cost per cum.				5032.27	
	Say				5032.25	

16.13.2 Water bound macadam

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 0.90cum.					
	Consider a road 6 metres wide and 0.6m. lengthwise and 0.25m cm average depth =0.90cum.					
	MATERIAL					
	Supplying and stacking stone aggregate 53mm to 24mm nominal size at site.					
16.3.3	Rate as per Item Number 16.3.3 of SH: Road Work	cum	0.09	1842.30	165.81	A
	Supplying and stacking red bajri at site					
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.023	1564.90	35.99	A
	Supplying and stacking moorum at site.					
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work	cum	0.022	768.25	16.90	A
	LABOUR					
	For cutting road and taking out soling and metalling including sorting and screening.					
0114	Beldar	day	0.48	736.00	353.28	
0115	Coolie	day	0.24	736.00	176.64	
	For relaying soling stone 3.6x0.15=0.54cum.					
0114	Beldar	day	0.24	736.00	176.64	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	0.24	736.00	176.64	
	For relaying road metal with extra quantity and consolidation to 0.10m thickness					
-	3.6x0.10=0.36cum.					
0114	Beldar	day	0.48	736.00	353.28	
0115	Coolie	day	0.48	736.00	353.28	
0101	Bhisti	day	0.10	816.00	81.60	
9999	Barrier and chowkidar etc.	L.S.	53.82	2.27	122.17	
	TOTAL				2012.23	W
	Add 1 % Water charges on “W-A”				17.94	
	TOTAL				2030.17	X
	Add GST on “X-A” (multiplying factor 0.2127)				385.30	
	TOTAL				2415.47	Y
	Add 15% CPOH on “Y-A”				329.52	
	TOTAL				2744.99	Z
	Add Cess @ 1% on “Z-A”				25.26	
	Cost for 0.90 cum.				2770.25	
	Cost per cum.				3078.06	
	Say				3078.05	

16.14 Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and red bajri required.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	10x0.075=0.75cum.					
	MATERIAL					
	Supplying and stacking 50mm brick aggregate at site(extra quantity)					
0286	Brick Aggregate (Single size) : 50 mm nominal size	cum	0.19	700.00	133.00	
2260	Carriage of Brick aggregate	cum	0.19	0.00	0.00	
	Supplying and stacking red bajri at site					
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.06	1564.90	93.89	A
	Supplying and stacking moorum at site					
16.3.10	Rate as per Item Number 16.3.10 of SH: Road	cum	0.06	768.25	46.10	A
	LABOUR					
	For cutting, sorting out, spreading and consolidation of aggregate					
0114	Beldar	day	1.60	736.00	1177.60	
0115	Coolie	day	0.80	736.00	588.80	
	TOTAL				2039.39	W
	Add 1 % Water charges on “W-A”				18.99	
	TOTAL				2058.38	X
	Add GST on “X-A” (multiplying factor 0.2127)				408.04	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2466.42	Y
	Add 15% CPOH on "Y-A"				348.96	
	TOTAL				2815.38	Z
	Add Cess @ 1% on "Z-A"				26.75	
	Cost for 10 sqm.				2842.13	
	Cost per sqm.				284.21	
	Say				284.20	

16.15 Supplying at site :

16.15.1 R.C.C. Standards post/ struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarsesand: 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in- charge (cost of earth works in excavation, concrete works in foundation to be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 posts = 0.336cum					
	Cubical contents of one post					
	Area bottom A1 = (15+12.5)/2 x8.75+½x3.14 x(6.25)² =120.31+61.38=181.69sqcm.					
	Area bottom A2 = (10+7.5)/2 x6.25+½x3.14 x(3.75)² sqm					
	= 54.68+22.08 = 76.76 sqcm.					
	(A1A2)^½ = 118.10sqcm					
	A1+A2+(A1A2))^½ = 0.03766 sqm					
	Volume = (1.05)/3x0.03766 = 0.01316 cum					
	=0.0132cum.					
	Volume of lower and square portion					
	(16.5x16.5x75) / 100³ = 0.0204cum.					
	Total volume = 0.0132+0.0204 cum					
	= 0.0336 cum.					
	Qty. for 10 post					
	= 0.0336x10 = 0.336cum.					
	Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 12.5mm nominal size)					
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.336	8340.85	2802.53	A
	Extra labour for laying cement concrete in RCC work					
0114	Beldar	day	0.034	736.00	25.02	
0101	Bhisti	day	0.067	816.00	54.67	
0123	Mason 1st class	day	0.013	897.00	11.66	
0124	Mason 2nd class	day	0.013	816.00	10.61	
0128	Mate	day	0.013	816.00	10.61	
	M.S. Reinforcement					
	6mm dia. bars					
	10x4x1.88m = 75.20m+					
	10x9x0.50m =45.00m = 120.20m					
	120.20m@0.22kg/m =26.44kg.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.22.2	Rate as per Item No.5.22.2 of SH: Reinforced cement concrete work	kg	26.44	95.80	2532.95	A
	Centering and shuttering					
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	6.99	392.15	2741.13	A
	6mm C.Plaster 1:2 (1 Cement : 2 fine sand)					
	Details of cost for 9.88 sqm.					
	(0.072)/10x9.88 = 0.071					
0367	Portland Cement (OPC-43 grade)	tonne	0.05	5156.00	257.80	
2209	Carriage of Cement	tonne	0.05	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.07	980.00	68.60	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.07	0.00	0.00	
	LABOUR					
0114	Beldar	day	0.05	736.00	36.80	
0101	Bhisti	day	0.02	816.00	16.32	
0155	Mason (average)	day	0.64	857.00	548.48	
0115	Coolie	day	0.80	736.00	588.80	
0101	Bhisti	day	0.27	816.00	220.32	
9999	Hire and running charges of mixer	L.S.	1.95	2.27	4.43	
9999	Extra for removing burr, cleaning with wire brushes, pock making with pointed tool etc. complete	L.S.	13.26	2.27	30.10	
9999	Scaffolding and sundries	L.S.	11.57	2.27	26.26	
9977	Carriage of RCC posts	L.S.	53.82	2.27	122.17	
9999	Wooden plugs or 6mm bar nibs	L.S.	12.22	2.27	27.74	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				10167.69	W
	Add 1 % Water charges on “W-A”				20.91	
	TOTAL				10188.60	X
	Add GST on “X-A” (multiplying factor 0.2127)				449.22	
	TOTAL				10637.82	Y
	Add 15% CPOH on “Y-A”				384.18	
	TOTAL				11022.00	Z
	Add Cess @ 1% on “Z-A”				29.45	
	Cost for 0.336 cum				11051.45	
	Cost for one cum				32891.22	
	Say				32891.20	

16.15.2 Welded steel wire fabric of required width having rectangular mesh painted with two or more coats of enamel paint of approved shade over a coat of primer (Priming & Painting to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 27 sqm (209.25 kg).					
	MATERIAL					
	Steel wire fabric 0.9m wide rectangular mesh 75x25mm size weight not less than 7.75kg/sqm. 30x0.9 = 27sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1021	Hard drawn steel wire fabric	sqm	27.00	430.00	11610.00	
2314	Carriage of Barbed wire	tonne	0.209	0.00	0.00	
	7.75x27=209.25kg=0.209tonne					
	TOTAL				11610.00	W
	Add 1 % Water charges on “W”				116.10	
	TOTAL				11726.10	X
	Add GST on “X” (multiplying factor 0.2127)				2494.14	
	TOTAL				14220.24	Y
	Add 15% CPOH on “Y”				2133.04	
	TOTAL				16353.28	Z
	Add Cess @ 1% on “Z”				163.53	
	Cost for 209.25 kg				16516.81	
	Cost per kg.				78.93	
	Say				78.95	

16.16 Supplying and fixing turn buckles and straining bolts for barbed wire fencing.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one set					
	MATERIAL					
1030	Galvanised steel turn buckles	each	1.00	25.00	25.00	
1028	Straining bolts	each	1.00	80.00	80.00	
9977	Carriage of turn buckles and straining bolts	L.S.	2.73	2.27	6.20	
	Labour for fixing straining bolts and turn buckles					
0103	Blacksmith 2nd class	day	0.10	816.00	81.60	
	TOTAL				192.80	W
	Add 1 % Water charges on “W”				1.93	
	TOTAL				194.73	X
	Add GST on “X” (multiplying factor 0.2127)				41.42	
	TOTAL				236.15	Y
	Add 15% CPOH on “Y”				35.42	
	TOTAL				271.57	Z
	Add Cess @ 1% on “Z”				2.72	
	Cost per set				274.29	
	Say				274.30	

16.17 Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.

16.17.1 With G.I. barbed wire

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 m Fencing i.e. 333m length of barbed wire					
	MATERIAL					
	G.I. barbed wire					
	30x9 = 270m +					
	10x6.32 = 63m					
	Total = 333m					
	333m @9.38kg/100m =31.24kg = 0.31q					
1029	Galvanised steel barbed wire	quintal	0.31	5500.00	1705.00	
2314	Carriage of Barbed wire	tonne	0.031	0.00	0.00	
9999	G.I. staples or binding wire	L.S.	49.40	2.27	112.14	
	LABOUR					
	Labour for fixing costs in line, fixing and stretching wire					
0123	Mason 1st class	day	0.12	897.00	107.64	
0124	Mason 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.50	736.00	368.00	
0102	Blacksmith 1st class	day	0.50	897.00	448.50	
0103	Blacksmith 2nd class	day	0.50	816.00	408.00	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				3277.89	W
	Add 1 % Water charges on “W”				32.78	
	TOTAL				3310.67	X
	Add GST on “X” (multiplying factor 0.2127)				704.18	
	TOTAL				4014.85	Y
	Add 15% CPOH on “Y”				602.23	
	TOTAL				4617.08	Z
	Add Cess @ 1% on “Z”				46.17	
	Cost for 333m				4663.25	
	Cost per m				14.00	
	Say				14.00	

16.18 Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.

16.18.1 With G.I. barbed wire

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 333.24 metre					
	MATERIAL					
	G.I. barbed wire					
	30x9 = 270.00m					
	2x10x(12+32)1/2 = 63.24					
	= 333.24m					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	333.24m @ 9.38kg/100m =31.26 kg say 0.31 q					
1029	Galvanised steel barbed wire	quintal	0.31	5500.00	1705.00	
2314	Carriage of Barbed wire	tonne	0.031	0.00	0.00	
	Supplying and fixing Turn buckle & staple					
16.16	Rate as per Item Number 16.16 of SH: Road Work	each set	10.00	274.30	2743.00	A
9999	G.I. staples	L.S.	49.40	2.27	112.14	
	Labour for fixing posts in line and fixing and stretching wire:					
0123	Mason 1st class	day	0.12	897.00	107.64	
0124	Mason 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.50	736.00	368.00	
0102	Blacksmith 1st class	day	0.50	897.00	448.50	
0103	Blacksmith 2nd class	day	0.50	816.00	408.00	
	TOTAL				5990.20	W
	Add 1 % Water charges on “W-A”				32.47	
	TOTAL				6022.67	X
	Add GST on “X-A” (multiplying factor 0.2127)				697.59	
	TOTAL				6720.26	Y
	Add 15% CPOH on “Y-A”				596.59	
	TOTAL				7316.85	Z
	Add Cess @ 1% on “Z-A”				45.74	
	Cost for 333.24m				7362.59	
	Cost per m				22.09	
	Say				22.10	

16.19 Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 qunital					
	MATERIAL					
	M.S. angle = 1.00 qtl.					
	Add 5% wastage = 0.05 qtl.					
	Total = =1.05 qtl					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	1.05	5965.00	6263.25	
2205	Carriage of Steel	tonne	0.105	0.00	0.00	
	LABOUR					
0103	Blacksmith 2nd class	day	0.75	816.00	612.00	
0114	Beldar	day	0.50	736.00	368.00	
	For spotting, bending of angle and drilling holes etc. :					
0103	Blacksmith 2nd class	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
9999	Sundries such as drilling bit etc.	L.S.	19.76	2.27	44.86	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				8840.11	W
	Add 1 % Water charges on “W”				88.40	
	TOTAL				8928.51	X
	Add GST on “X” (multiplying factor 0.2127)				1899.09	
	TOTAL				10827.60	Y
	Add 15% CPOH on “Y”				1624.14	
	TOTAL				12451.74	Z
	Add Cess @ 1% on “Z”				124.52	
	Cost for 1 qunital				12576.26	
	Cost of one kg				125.76	
	Say				125.75	

16.20 **Welded steel wire fabric fencing with posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x 60 cm of mix 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size), every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50 cm of the same mix, provided with welded steel wire fabric fixed between the posts fitted and fixed with G.I. staples on wooden plugs or tied to 6 mm bar nibs with G.I. binding wire (cost of posts, welded steel wire fabric, painting, earth work in excavation and concrete to be paid for separately).**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metres i.e.30x1.20 =36.00sqm Labour for fixing posts in line fixing and stretching - welded wire fabric :					
0123	Mason 1st class	day	0.12	897.00	107.64	
0124	Mason 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.50	736.00	368.00	
0102	Blacksmith 1st class	day	0.50	897.00	448.50	
0103	Blacksmith 2nd class	day	0.50	816.00	408.00	
9999	G.I. staple or binding wire	L.S.	53.82	2.27	122.17	
9999	Sundries	L.S.	53.82	2.27	122.17	
	TOTAL				1674.40	W
	Add 1 % Water charges on “W”				16.74	
	TOTAL				1691.14	X
	Add GST on “X” (multiplying factor 0.2127)				359.71	
	TOTAL				2050.85	Y
	Add 15% CPOH on “Y”				307.63	
	TOTAL				2358.48	Z
	Add Cess @ 1% on “Z”				23.58	
	Cost for 36 sqm				2382.06	
	Cost per sqm				66.17	
	Say				66.15	

16.21 Engraving letters in hard stone

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6 letters 8 cm height					
	LABOUR					
	For Engraving stone-					
0126	Mason (for ornamental stone work) 1st class	day	0.38	897.00	340.86	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				356.21	W
	Add 1 % Water charges on “W”				3.56	
	TOTAL				359.77	X
	Add GST on “X” (multiplying factor 0.2127)				76.52	
	TOTAL				436.29	Y
	Add 15% CPOH on “Y”				65.44	
	TOTAL				501.73	Z
	Add Cess @ 1% on “Z”				5.02	
	Cost of 6 letters of 8cm heights				506.75	
	Cost per cm. height per letter				10.56	
	Say				10.55	

16.22 Providing and fixing 15x15x90 cm boundary stone of hard stone with top 30 cm chisel dressed on all four sides including top (cost of excavation, refilling and concrete etc. to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one stone					
1151	Boundry stone top chisel dressed 15x15x90 cm	each	1.00	80.00	80.00	
	Labour for fixing					
0114	Beldar	day	0.12	736.00	88.32	
9977	Carriage to site	L.S.	4.16	2.27	9.44	
	TOTAL				177.76	W
	Add 1 % Water charges on “W”				1.78	
	TOTAL				179.54	X
	Add GST on “X” (multiplying factor 0.2127)				38.19	
	TOTAL				217.73	Y
	Add 15% CPOH on “Y”				32.66	
	TOTAL				250.39	Z
	Add Cess @ 1% on “Z”				2.50	
	Cost of each.				252.89	
	Say				252.90	

16.23 Providing and fixing 15 cm dia at top, 20 cm at bottom and 90 cm high precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) boundary stone as per standard design, including finishing smooth with cement mortar 1:3 (1 cement : 3 fine sand) (cost of excavation, refilling and concreting to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos. stone					
	(i) Cement concrete 1:1½:3 (1 cement : 1½ Coarse sand : 3 graded stone aggregate 20mm nominal size) Volume of frustum of cone:					
	L/3 x [A1+A2+sqrt(A1A2)] = (0.825/3) x					
	[0.095²+0.075² + sqrt(0.095 x 0.075²)] x3.142=0.01882 (A)					
	Volume of hemi sphere:					
	½ x 4 /3 x PI x r³ = ½x(4/ 3)x(22/7) x0.075³=0.00100 (B) Total volume one Nos.= A+B = 0.01982 Say 0.02cum, Volume for 10 Nos. = 10x0.02= 0.2 cum					
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.200	8340.85	1668.17	A
	(ii) Extra for laying cement concerte in RCC work LABOUR					
0114	Beldar	day	0.020	736.00	14.72	
0101	Bhisti	day	0.040	816.00	32.64	
0123	Mason 1st class	day	0.008	897.00	7.18	
0124	Mason 2nd class	day	0.008	816.00	6.53	
0128	Mate	day	0.008	816.00	6.53	
	(iii) M.S. reinforcement- 6mm dia. Bar					
	5.99 metre =10x 5.99x0.22 =13.2kg.					
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	13.200	107.10	1413.72	A
	(iv) Centering and shuttering- 1/2x3.142 (0.19+0.15)x0.825 =0.441 +					
	3.142/4(0.19)² =0.028 +					
	1/2x4x3.142(0.075)² = 0.035					
	= 0.504 Say 0.50sqm					
	Qty for 10 Nos. = 10x0.50 = 5.00 sqm					
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	5.000	392.15	1960.75	A
	(v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)- 1/2x3.142 (0.19+0.15)x0.825 =0.44 +					
	3.142/4(0.19)² =0.028 +					
	1/2x4x3.142(0.075)² = 0.035					
	= 0.504 Say 0.50sqm					
	Qty for 10 Nos. = 10x0.50 = 5.00 sqm					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0367	Portland Cement (OPC-43 grade)	tonne	0.018	5156.00	92.81	
2209	Carriage of Cement	tonne	0.018	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.385	980.00	377.30	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.385	0.00	0.00	
	Labour for mortar					
0114	Beldar	day	0.027	736.00	19.87	
0101	Bhisti	day	0.002	816.00	1.63	
9999	Hire and running charges of mixer	L.S.	1.000	2.27	2.27	
9999	Sundries	L.S.	0.500	2.27	1.14	
	Labour for plaster					
0155	Mason (average)	day	0.260	857.00	222.82	
0115	Coolie	day	0.380	736.00	279.68	
0101	Bhisti	day	0.460	816.00	375.36	
9999	Extra for removing burr	L.S.	6.800	2.27	15.44	
9999	Scaffolding, sundries etc.	L.S.	6.000	2.27	13.62	
	(vi) Labour for fixing					
0114	Beldar	day	1.200	736.00	883.20	
9977	Carriage to site	L.S.	41.600	2.27	94.43	
	TOTAL				7489.81	W
	Add 1 % Water charges on “W-A”				24.47	
	TOTAL				7514.28	X
	Add GST on “X-A” (multiplying factor 0.2127)				525.72	
	TOTAL				8040.00	Y
	Add 15% CPOH on “Y-A”				449.60	
	TOTAL				8489.60	Z
	Add Cess @ 1% on “Z-A”				34.47	
	Cost of 10 nos. stone				8524.07	
	Cost of each.				852.41	
	Say				852.40	

16.24 Providing and fixing precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) kilometre stone as per standard design, including finishing smooth in 1:3 cement mortar (1 cement : 3 fine sand) but excluding the cost of earth work, concrete in foundation, painting and lettering etc. which shall be paid for separately.

16.24.1 35x111x25 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos. stone					
	(i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size) in Kilometre stone					
	0.35x0.25x0.835m = 0.073					
	0.37x0.27x0.10m = 0.010					
	$1/2x22/7x(0.175)^2x0.25m = 0.012$					
	= 0.095cum Say 0.10cum					
	Volume for 10 nos. = 10x0.10 cum = 1 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work. (ii) Extra for laying cement concrete in RCC work	cum	1.00	8340.85	8340.85	A
0114	Beldar	day	0.10	736.00	73.60	
0101	Bhisti	day	0.20	816.00	163.20	
0123	Mason 1st class	day	0.040	897.00	35.88	
0124	Mason 2nd class	day	0.040	816.00	32.64	
0128	Mate	day	0.040	816.00	32.64	
	(iii) M.S. reinforcement- 1cum @48.06kg/ cum. =48.06kg. Say 48.1kg.					
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work (iv) Centering and shuttering- (0.35+2x0.25)x0.835 = 0.710 sqm 0.35x0.25 = 0.088sqm (0.37+2x0.27)x0.10 = 0.091sqm 2x0.37x0.01 = 0.007 sqm 2x2x0.25x0.1 = 0.010sqm 1/2x3.142/4x(0.35)² = 0.048sqm 1/2x0.35x0.25x3.142 = 0.138sqm. = 1.092sqm. Say 1.09 sqm, qty for 10 nos stone = 10x1.09 = 10.9 sqm	kg	48.10	107.10	5151.51	A
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work (v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)- Qty. as per centering and shuttering = 1.092sqm 0.35x0.835 = 0.292sqm 0.37x0.10 = 0.037sqm 1/2x3.142/4x(0.35)²= 0.048sqm 2x0.37x0.01 = 0.007 sqm = 1.476 sqm Say 1.48 sqm, Qty for 10 stone = 10x1.48 sqm = 14.8 sqm	sqm	10.90	392.15	4274.44	A
0367	Portland Cement (OPC-43 grade)	tonne	0.540	5156.00	2784.24	
2209	Carriage of Cement	tonne	0.540	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.110	980.00	107.80	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.110	0.00	0.00	
	Labour for mortar					
0114	Beldar	day	0.080	736.00	58.88	
0101	Bhisti	day	0.007	816.00	5.71	
9999	Hire and running charges of mixer	L.S.	0.30	2.27	0.68	
9999	Sundries	L.S.	1.30	2.27	2.95	
	Labour for plaster					
0155	Mason (average)	day	0.750	857.00	642.75	
0115	Coolie	day	1.110	736.00	816.96	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0101	Bhisti	day	1.360	816.00	1109.76	
9999	Extra for removing burr	L.S.	19.50	2.27	44.27	
9999	Scaffolding, sundries etc.	L.S.	18.20	2.27	41.31	
	(vi) Labour for fixing					
0114	Beldar	day	2.00	736.00	1472.00	
9977	Carriage to site	L.S.	135.20	2.27	306.90	
	TOTAL				25498.97	W
	Add 1 % Water charges on “W-A”				77.32	
	TOTAL				25576.29	X
	Add GST on “X-A” (multiplying factor 0.2127)				1661.08	
	TOTAL				27237.37	Y
	Add 15% CPOH on “Y-A”				1420.59	
	TOTAL				28657.96	Z
	Add Cess @ 1% on “Z-A”				108.91	
	Cost for 10 Nos. stone				28766.87	
	Cost per stone				2876.69	
	Say				2876.70	

16.24.2 50x152.5x25 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one stone					
	(i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size)					
	0.50x0.25x1.145m = 0.143cum. +					
	0.52x0.27x0.13m = 0.018cum. +					
	1/2x22/7x$(0.25)^2$x0.25m = 0.025cum.					
	= 0.186 cum.					
	Say 0.19cum.					
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.19	8340.85	1584.76	A
	(ii) Extra for laying cement concrete in RCC work					
0114	Beldar	day	0.019	736.00	13.98	
0101	Bhisti	day	0.038	816.00	31.01	
0123	Mason 1st class	day	0.008	897.00	7.18	
0124	Mason 2nd class	day	0.008	816.00	6.53	
0128	Mate	day	0.008	816.00	6.53	
	(iii) M.S. reinforcement-					
	0.19cum @48.06kg/cum. =9.131kg.					
	Say 9.13 kg.					
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work	kg	9.13	107.10	977.82	A
	(iv) Centering and shuttering-					
	(0.50+2x0.25)x1.145 = 1.145 sqm					
	1/2x$(0.25)^2$x3.142 = 0.098					
	3.142(0.25)x(0.25) =0.196					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	(0.52+2x0.27)x0.13 =0.138					
	2x0.52x0.01 =0.10					
	2x2x0.25x0.01 =0.010					
	1x0.50x0.25 =0.125					
	=1.722sqm. Say 1.72 sqm					
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	1.72	392.15	674.50	A
	(v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)-					
	Qty. as per centering and shuttering					
	= 1.722sqm. +					
	0.50x1.145 = 0.572 +					
	0.52x0.13 = 0.068sqm. +					
	1/2x(0.25)²x3.142 = 0.098 +					
	2x0.52x001 = 0.010					
	= 2.470sqm Sq. 2.47 sqm.					
	MATERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.09	5156.00	464.04	
2209	Carriage of Cement	tonne	0.09	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.20	980.00	196.00	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.20	0.00	0.00	
	Labour for mortar					
0114	Beldar	day	0.013	736.00	9.57	
0101	Bhisti	day	0.001	816.00	0.82	
9999	Hire and running charges of mixer	L.S.	0.52	2.27	1.18	
9999	Sundries	L.S.	0.26	2.27	0.59	
	Labour for plaster					
0155	Mason (average)	day	0.126	857.00	107.98	
0115	Coolie	day	0.185	736.00	136.16	
0101	Bhisti	day	0.227	816.00	185.23	
9999	Extra for removing burr	L.S.	3.38	2.27	7.67	
9999	Scaffolding, sundries etc.	L.S.	2.86	2.27	6.49	
	(vi) Labour for fixing					
0114	Beldar	day	0.20	736.00	147.20	
9977	Carriage to site	L.S.	13.52	2.27	30.69	
	TOTAL				4595.93	W
	Add 1 % Water charges on “W-A”				13.59	
	TOTAL				4609.52	X
	Add GST on “X-A” (multiplying factor 0.2127)				291.92	
	TOTAL				4901.44	Y
	Add 15% CPOH on “Y-A”				249.65	
	TOTAL				5151.09	Z
	Add Cess @ 1% on “Z-A”				19.14	
	Cost per stone				5170.23	
	Say				5170.25	

16.24.3 35x93.5x18 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos stone					
	(i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size) 0.35x0.18x0.835m = 0.0526 cum. + 0.37x0.20x0.10m = 0.0074 cum. = 0.060 cum. Volume for 10 nos. = 10x0.06 cum = 0.60 cum					
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.600	8340.85	5004.51	A
	(ii) Extra for laying cement concrete in RCC work					
0114	Beldar	day	0.060	736.00	44.16	
0101	Bhisti	day	0.120	816.00	97.92	
0123	Mason 1st class	day	0.024	897.00	21.53	
0124	Mason 2nd class	day	0.024	816.00	19.58	
0128	Mate	day	0.024	816.00	19.58	
	(iii) M.S. reinforcement-0.60cum @48.06kg/ cum. =28.8 kg.					
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work	kg	28.800	107.10	3084.48	A
	(iv) Centering and shuttering- (0.35+2x0.18)x0.835 = 0.593 sqm (0.37+2x0.20)x0.10 = 0.077 sqm 2x0.35x0.18 = 0.126 sqm 2x0.37x0.01 = 0.007sqm 2x2x0.18x0.01 = 0.007sqm = 0.810 sqm Qty, for 10 Nos. Stone=10x0.810=8.10 sqm					
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	8.100	392.15	3176.42	A
	(v) 6mm cement plaster 1:3 (1 Cement :3 fine sand)- Qty. as per centering and shuttering = 0.810sqm 0.35x0.835 = 0.292sqm 0.37x0.10 =0.037sqm 2x0.37x0.01 =0.007sqm = 1.146 sqm Say 1.15sqm Qty, for 10 Nos. Stone=10x1.150=11.50 sqm					
	MATERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.420	5156.00	2165.52	
2209	Carriage of Cement	tonne	0.420	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.090	980.00	88.20	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.090	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for mortar					
0114	Beldar	day	0.060	736.00	44.16	
0101	Bhisti	day	0.006	816.00	4.90	
9999	Hire and running charges of mixer	L.S.	2.600	2.27	5.90	
9999	Sundries	L.S.	1.300	2.27	2.95	
	Labour for plaster					
0155	Mason (average)	day	0.580	857.00	497.06	
0115	Coolie	day	0.860	736.00	632.96	
0101	Bhisti	day	1.050	816.00	856.80	
9999	Extra for removing burr	L.S.	15.600	2.27	35.41	
9999	Scaffolding, sundries etc.	L.S.	13.000	2.27	29.51	
	(vi) Labour for fixing					
0114	Beldar	day	1.000	736.00	736.00	
9977	Carriage to site	L.S.	135.200	2.27	306.90	
	TOTAL				16874.45	W
	Add 1 % Water charges on “W-A”				56.09	
	TOTAL				16930.54	X
	Add GST on “X-A” (multiplying factor 0.2127)				1204.97	
	TOTAL				18135.51	Y
	Add 15% CPOH on “Y-A”				1030.52	
	TOTAL				19166.03	Z
	Add Cess @ 1% on “Z-A”				79.01	
	Cost for 10 Nos. stone				19245.04	
	Cost per stone				1924.50	
	Say				1924.50	

16.25 Surface dressing on new surface with paving bitumen of grade VG - 10 of approved quality using 2.25 kg of bitumen per sqm with 1.65 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete:

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Bitumen S-90@2.25kg per sqm. =225 kg = 0.225 tonne.					
0309	Paving bitumen VG-10 of approved quality	tonne	0.225	33530.00	7544.25	
2211	Carriage of Tar bitumen	tonne	0.225	0.00	0.00	
	Stone aggregate 13.2mm nominal size @ 1.65cum. per 100sqm.					
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.650	1400.00	2310.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.650	0.00	0.00	
	Steam coal for heating bitumen @2 quintal per tonne of bitumen = 2x0.225=0.450q					
0370	Coal (steam)	quintal	0.450	500.00	225.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2200	Carriage of steam coal	tonne	0.045	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate (a) For cleaning :					
0128	Mate	day	0.110	816.00	89.76	
0114	Beldar	day	1.400	736.00	1030.40	
0115	Coolie	day	1.400	736.00	1030.40	
	(b) For heating and spraying bitumen :					
0130	Mistry	day	0.080	897.00	71.76	
0138	Sprayer (for bitumen, tar etc.)	day	0.110	816.00	89.76	
0114	Beldar	day	0.930	736.00	684.48	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.110	816.00	89.76	
0114	Beldar	day	0.930	736.00	684.48	
0115	Coolie	day	1.550	736.00	1140.80	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.270	736.00	198.72	
0101	Bhisti	day	0.110	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.110	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.120	900.00	108.00	
0007	Hire charges of Coaltar Sprayer	day	0.110	400.00	44.00	
	(e) Misc:					
0364	Wire brush	each	0.110	25.00	2.75	
0365	Soft brush	each	0.320	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.760	2.27	15.35	
9999	Sundries	L.S.	6.760	2.27	15.35	
	TOTAL				15841.28	W
	Add 1 % Water charges on “W”				158.41	
	TOTAL				15999.69	X
	Add GST on “X” (multiplying factor 0.2127)				3403.13	
	TOTAL				19402.82	Y
	Add 15% CPOH on “Y”				2910.42	
	TOTAL				22313.24	Z
	Add Cess @ 1% on “Z”				223.13	
	Cost for 100 Sqm.				22536.37	
	Cost per Sqm.				225.36	
	Say				225.35	

16.26 Surface dressing on new surface in two coats with bitumen of grade VG -10 of approved quality using 1.8 kg of bitumen per sqm with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface for first coat and 1.1 kg. of bitumen per sqm with 1.00 cu. metre of st one chippings 11.2 mm nominal size per 100 sqm of road surface for second coat, including consolidation of each coat separately with road roller of 6 to 8 tonne capacity etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Bitumen S-90/A-90 @ 1.8kg/ sqm.=180kg.=0.18 tonne					
0309	Paving bitumen VG-10 of approved quality	tonne	0.18	33530.00	6035.40	
2211	Carriage of Tar bitumen	tonne	0.18	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.50	1400.00	2100.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	0.00	0.00	
	Steam coal for heating bitumen @2 qunital per tonne					
0370	Coal (steam)	quintal	0.36	500.00	180.00	
2200	Carriage of steam coal	tonne	0.036	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate					
	(a) For cleaning :					
0128	Mate	day	0.11	816.00	89.76	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating and spraying bitumen :					
0130	Mistry	day	0.08	897.00	71.76	
0138	Sprayer (for bitumen, tar etc.)	day	0.11	816.00	89.76	
0114	Beldar	day	1.38	736.00	1015.68	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.27	816.00	220.32	
0114	Beldar	day	0.85	736.00	625.60	
0115	Coolie	day	0.85	736.00	625.60	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.11	736.00	80.96	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.12	900.00	108.00	
0007	Hire charges of Coaltar Sprayer	day	0.11	400.00	44.00	
	(e) Misc:					
0364	Wire brush	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	16.38	2.27	37.18	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Second Coat					
	MATERIAL					
	Bitumen S-90/A-90 @ 1.10kg per sqm = 110kg.=0.11 tonne					
0309	Paving bitumen VG-10 of approved quality	tonne	0.11	33530.00	3688.30	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.00	1400.00	1400.00	
2211	Carriage of Tar bitumen	tonne	0.11	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	0.00	0.00	
	Steam coal for heating bitumen @2 qunital per tonne of bitumen					
0370	Coal (steam)	quintal	0.22	500.00	110.00	
2200	Carriage of steam coal	tonne	0.022	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate					
	(a) For cleaning and brushing loose chips:					
0128	Mate	day	0.06	816.00	48.96	
0115	Coolie	day	0.97	736.00	713.92	
	(b) For heating and spraying bitumen :					
0130	Mistry	day	0.05	897.00	44.85	
0138	Sprayer (for bitumen, tar etc.)	day	0.07	816.00	57.12	
0114	Beldar	day	0.75	736.00	552.00	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.07	816.00	57.12	
0114	Beldar	day	0.62	736.00	456.32	
0115	Coolie	day	0.62	736.00	456.32	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.15	736.00	110.40	
0101	Bhisti	day	0.06	816.00	48.96	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3350.00	201.00	
0007	Hire charges of Coaltar Sprayer	day	0.07	400.00	28.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	900.00	54.00	
	(e) Misc:					
0364	Wire brush (with thick wire)	each	0.03	25.00	0.75	
0365	Soft brush	each	0.09	25.00	2.25	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				21920.99	W
	Add 1 % Water charges on “W”				219.21	
	TOTAL				22140.20	X
	Add GST on “X” (multiplying factor 0.2127)				4709.22	
	TOTAL				26849.42	Y
	Add 15% CPOH on “Y”				4027.41	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				30876.83	Z
	Add Cess @ 1% on "Z"				308.77	
	Cost for per 100 sqm.				31185.60	
	Cost per 1 Sqm.				311.86	
	Say				311.85	

16.27 Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity, etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Bitumen 1.95kg./sqm.= 195kg. or 0.195t					
0309	Paving bitumen VG-10 of approved quality	tonne	0.195	33530.00	6538.35	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 1.50cum. per 100 sqm.	cum	1.50	1400.00	2100.00	
2211	Carriage of Tar bitumen	tonne	0.195	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	0.00	0.00	
	Steam coal for heating bitumen @2 quintal per tonne of bitumen					
0370	Coal (steam)	quintal	0.39	500.00	195.00	
2200	Carriage of steam coal	tonne	0.039	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate etc.					
	(a) For cleaning :					
0128	Mate	day	0.06	816.00	48.96	
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.97	736.00	713.92	
	(b) For heating and spraying bitumen :					
0130	Mistry	day	0.05	897.00	44.85	
0138	Sprayer (for bitumen, tar etc.)	day	0.06	816.00	48.96	
0114	Beldar	day	0.69	736.00	507.84	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.66	816.00	538.56	
0114	Beldar	day	0.51	736.00	375.36	
0115	Coolie	day	0.51	736.00	375.36	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.15	736.00	110.40	
0101	Bhisti	day	0.06	816.00	48.96	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3350.00	201.00	
0007	Hire charges of Coaltar Sprayer	day	0.06	400.00	24.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	900.00	54.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	(e) Misc:					
	Brushes etc. for cleaning					
0364	Wire brush (with thick wire)	each	0.05	25.00	1.25	
0365	Soft brush	each	0.12	25.00	3.00	
9999	Brooms and gunny bags	L.S.	2.73	2.27	6.20	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				12308.71	W
	Add 1 % Water charges on “W”				123.09	
	TOTAL				12431.80	X
	Add GST on “X” (multiplying factor 0.2127)				2644.24	
	TOTAL				15076.04	Y
	Add 15% CPOH on “Y”				2261.41	
	TOTAL				17337.45	Z
	Add Cess @ 1% on “Z”				173.37	
	Cost for 100 sqm.				17510.82	
	Cost per Sqm.				175.11	
	Say				175.10	

16.28 Surface dressing one coat on new surface with bitumen of specified grade at a rate of 1.95 kg/sqm of surface area with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity , etc. complete :

16.28.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
0310	Bitumen emulsion	tonne	0.195	33850.00	6600.75	
2211	Carriage of Tar bitumen	tonne	0.195	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.50	1400.00	2100.00	
	@1.50 cum. per 100 sqm. = 1.50cum					
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.11	816.00	89.76	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For Spraying bitumen emulsion :					
0130	Mistry	day	0.07	897.00	62.79	
0138	Sprayer (for bitumen, tar etc.)	day	0.10	816.00	81.60	
0114	Beldar	day	1.00	736.00	736.00	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.11	816.00	89.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.85	736.00	625.60	
0115	Coolie	day	0.85	736.00	625.60	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.27	816.00	220.32	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0007	Hire charges of Coaltar Sprayer	day	0.10	400.00	40.00	
	(e) Misc:					
	Brushes etc. for cleaning					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				13947.84	W
	Add 1 % Water charges on “W”				139.48	
	TOTAL				14087.32	X
	Add GST on “X” (multiplying factor 0.2127)				2996.37	
	TOTAL				17083.69	Y
	Add 15% CPOH on “Y”				2562.55	
	TOTAL				19646.24	Z
	Add Cess @ 1% on “Z”				196.46	
	Cost for 100 sqm.				19842.70	
	Cost per Sqm.				198.43	
	Say				198.45	

16.29 Surface dressing one coat on old surface with bitumen of specified grade at the rate of 1.22 kg/ sqm of surface area with 1.10 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete :

16.29.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Bitumen emulsion @1.22 kg per Sqm. =122 kg. or 0.122 tonne					
0310	Bitumen emulsion	tonne	0.122	33850.00	4129.70	
2211	Carriage of Tar bitumen	tonne	0.122	0.00	0.00	
	Stone chippings 11.2mm nominal size @ 1.10cum. per 100 sqm					
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.10	1400.00	1540.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.10	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.06	816.00	48.96	
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.97	736.00	713.92	
	(b) For Spraying bitumen emulsion:					
0130	Mistry	day	0.05	897.00	44.85	
0138	Sprayer (for bitumen, tar etc.)	day	0.06	816.00	48.96	
0114	Beldar	day	0.63	736.00	463.68	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.07	816.00	57.12	
0114	Beldar	day	0.62	736.00	456.32	
0115	Coolie	day	0.62	736.00	456.32	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.15	736.00	110.40	
0101	Bhisti	day	0.15	816.00	122.40	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3350.00	201.00	
0007	Hire charges of Coaltar Sprayer	day	0.06	400.00	24.00	
	(e) Misc:					
	Brushes etc. for cleaning					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	2.73	2.27	6.20	
9999	Sundries	L.S.	5.33	2.27	12.10	
	TOTAL				8807.32	W
	Add 1 % Water charges on “W”				88.07	
	TOTAL				8895.39	X
	Add GST on “X” (multiplying factor 0.2127)				1892.05	
	TOTAL				10787.44	Y
	Add 15% CPOH on “Y”				1618.12	
	TOTAL				12405.56	Z
	Add Cess @ 1% on “Z”				124.06	
	Cost for 100 sqm.				12529.62	
	Cost per Sqm.				125.30	
	Say				125.30	

16.30 Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :

16.30.1 On W.B.M. @ 0.75 Kg / sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality	tonne	0.075	33530.00	2514.75	
2211	Carriage of Tar bitumen	tonne	0.075	0.00	0.00	
0370	Coal (steam)	quintal	0.15	500.00	75.00	
2200	Carriage of steam coal	tonne	0.015	0.00	0.00	
	MATERIAL					
0364	Wire brush (with thick wire)	each	0.05	25.00	1.25	
0365	Soft brush	each	0.12	25.00	3.00	
9999	Gunny bags	L.S.	7.80	2.27	17.71	
0007	Hire charges of Coaltar Sprayer	day	0.03	400.00	12.00	
9999	Sundries	L.S.	9.10	2.27	20.66	
	LABOUR					
	(a) For cleaning :					
0128	Mate	day	0.06	816.00	48.96	
0114	Beldar	day	1.46	736.00	1074.56	
	(b) For heating bitumen:					
0114	Beldar	day	0.19	736.00	139.84	
	(c) For applying tack coat:					
0114	Beldar	day	0.47	736.00	345.92	
	TOTAL				4253.65	W
	Add 1 % Water charges on “W”				42.54	
	TOTAL				4296.19	X
	Add GST on “X” (multiplying factor 0.2127)				913.80	
	TOTAL				5209.99	Y
	Add 15% CPOH on “Y”				781.50	
	TOTAL				5991.49	Z
	Add Cess @ 1% on “Z”				59.91	
	Cost for 100 sqm.				6051.40	
	Cost per Sqm.				60.51	
	Say				60.50	

16.30.2 On bituminous surface @ 0.50 Kg / sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality	tonne	0.05	33530.00	1676.50	
2211	Carriage of Tar bitumen	tonne	0.05	0.00	0.00	
0370	Coal (steam)	quintal	0.10	500.00	50.00	
2200	Carriage of steam coal	tonne	0.01	0.00	0.00	
	MATERIAL					
0364	Wire brush (with thick wire)	each	0.05	25.00	1.25	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0365	Soft brush	each	0.12	25.00	3.00	
9999	Gunny bags	L.S.	7.80	2.27	17.71	
0007	Hire charges of Coaltar Sprayer	day	0.03	400.00	12.00	
9999	Sundries	L.S.	7.80	2.27	17.71	
	LABOUR					
	(a) For cleaning :					
0128	Mate	day	0.06	816.00	48.96	
0114	Beldar	day	1.46	736.00	1074.56	
	(b) For heating bitumen:					
0114	Beldar	day	0.19	736.00	139.84	
	(c) For applying tack coat:					
0114	Beldar	day	0.47	736.00	345.92	
	TOTAL				3387.45	W
	Add 1 % Water charges on “W”				33.87	
	TOTAL				3421.32	X
	Add GST on “X” (multiplying factor 0.2127)				727.71	
	TOTAL				4149.03	Y
	Add 15% CPOH on “Y”				622.35	
	TOTAL				4771.38	Z
	Add Cess @ 1% on “Z”				47.71	
	Cost for 100 sqm.				4819.09	
	Cost per Sqm.				48.19	
	Say				48.20	

16.31 Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributer including preparing the surface & cleaning with mechanical broom.

16.31.1 With rapid setting bitumen emulsion

16.31.1.1 On W.B.M / W.M.M. @ 0.4kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3500 sqm.					
	MATERIAL					
7382	Bitumen emulsion rapid setting (R.S.) conforming to IS : 8887-1995	tonne	1.40	19893.00	27850.20	
2211	Carriage of Tar bitumen	tonne	1.40	0.00	0.00	
	MACHINERY					
0075	Road sweeper (Mechamical Broom) @ 1250 sqm. Per hour.	hour	2.80	500.00	1400.00	
0058	Air compressor	hour	2.80	250.00	700.00	
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00	
	LABOUR					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				33087.48	W
	Add 1 % Water charges on “W”				330.87	
	TOTAL				33418.35	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				7108.08	
	TOTAL				40526.43	Y
	Add 15% CPOH on “Y”				6078.96	
	TOTAL				46605.39	Z
	Add Cess @ 1% on “Z”				466.05	
	Cost for 3500 sqm.				47071.44	
	Cost per Sqm.				13.45	
	Say				13.45	

16.31.1.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3500 sqm.					
	MATERIAL					
7382	Bitumen emulsion rapid setting (R.S.) conforming to IS : 8887-1995	tonne	0.875	19893.00	17406.38	
2211	Carriage of Tar bitumen	tonne	0.875	0.00	0.00	
	MACHINERY					
0075	Road sweeper (Mechamical Broom) @ 1250 sqm. Per hour.	hour	2.80	500.00	1400.00	
0058	Air compressor	hour	2.80	250.00	700.00	
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00	
	LABOUR					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				22643.66	W
	Add 1 % Water charges on “W”				226.44	
	TOTAL				22870.10	X
	Add GST on “X” (multiplying factor 0.2127)				4864.47	
	TOTAL				27734.57	Y
	Add 15% CPOH on “Y”				4160.19	
	TOTAL				31894.76	Z
	Add Cess @ 1% on “Z”				318.95	
	Cost for 3500 sqm.				32213.71	
	Cost per Sqm.				9.20	
	Say				9.20	

16.31.2 With medium setting bitumen emulsion

16.31.2.1 On W.B.M / W.M.M. @ 0.4kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3500 sqm.					
	MATERIAL					
7742	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887-1995	tonne	1.40	33530.00	46942.00	
2211	Carriage of Tar bitumen	tonne	1.40	0.00	0.00	
	MACHINERY					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0075	Road sweeper (Mechamical Broom) @ 1250 sqm. Per hour.	hour	2.80	500.00	1400.00	
0058	Air compressor	hour	2.80	250.00	700.00	
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00	
	LABOUR					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				52179.28	W
	Add 1 % Water charges on “W”				521.79	
	TOTAL				52701.07	X
	Add GST on “X” (multiplying factor 0.2127)				11209.52	
	TOTAL				63910.59	Y
	Add 15% CPOH on “Y”				9586.59	
	TOTAL				73497.18	Z
	Add Cess @ 1% on “Z”				734.97	
	Cost for 3500 sqm.				74232.15	
	Cost per Sqm.				21.21	
	Say				21.20	

16.31.2.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3500 sqm.					
	MATERIAL					
7742	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887-1995	tonne	0.875	33530.00	29338.75	
2211	Carriage of Tar bitumen	tonne	0.875	0.00	0.00	
	MACHINERY					
0075	Road sweeper (Mechamical Broom) @ 1250 sqm. Per hour.	hour	2.80	500.00	1400.00	
0058	Air compressor	hour	2.80	250.00	700.00	
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00	
	LABOUR					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				34576.03	W
	Add 1 % Water charges on “W”				345.76	
	TOTAL				34921.79	X
	Add GST on “X” (multiplying factor 0.2127)				7427.86	
	TOTAL				42349.65	Y
	Add 15% CPOH on “Y”				6352.45	
	TOTAL				48702.10	Z
	Add Cess @ 1% on “Z”				487.02	
	Cost for 3500 sqm.				49189.12	
	Cost per Sqm.				14.05	
	Say				14.05	

16.32 2 cm premix carpet surfacing with 1.8 cum and 0.90 cum of stone chippings of 13.2 mm size and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).

16.32.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	Asphalt 80/100					
	(i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Bitumen :52xl.8+56x0.9=144kg. or 0.144 tonne					
	MATERIAL					
2916	Paving Asphalt VG 10 of approved quality	tonne	0.144	33530.00	4828.32	
2211	Carriage of Tar bitumen	tonne	0.144	0.00	0.00	
	Solvent 70gms/kg. for 0.144 t = 10.08kg.					
2914	Solvent	kilogram	10.08	32.00	322.56	
2342	Carriage of solvent/ Diesel.	quintal	0.10	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100 sqm	cum	1.80	1400.00	2520.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100 sqm	cum	0.90	1400.00	1260.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	0.00	0.00	
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.144=0.288q					
0370	Coal (steam)	quintal	0.288	500.00	144.00	
2200	Carriage of steam coal	tonne	0.029	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen:					
0114	Beldar	day	0.57	736.00	419.52	
	(c) For screening and spreading premixed aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	5.00	736.00	3680.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	(d) Consolidation Charges					
0113	Chowkidar (at barrier for night watch and for road roller)	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	900.00	117.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
	(e) Misc:					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				16450.53	W
	Add 1 % Water charges on “W”				164.51	
	TOTAL				16615.04	X
	Add GST on “X” (multiplying factor 0.2127)				3534.02	
	TOTAL				20149.06	Y
	Add 15% CPOH on “Y”				3022.36	
	TOTAL				23171.42	Z
	Add Cess @ 1% on “Z”				231.71	
	Cost for 100 sqm.				23403.13	
	Cost per Sqm.				234.03	
	Say				234.05	

16.32.2 With paving Asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm. Asphalt 60/70 (i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Bitumen :52xl.8+56x0.9=144kg. or 0.144 tonne MATERIAL					
7309	Paving Asphalt VG-30 of approved quality	tonne	0.144	41202.00	5933.09	
2211	Carriage of Tar bitumen	tonne	0.144	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100sqm.	cum	1.80	1400.00	2520.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100sqm	cum	0.90	1400.00	1260.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	0.00	0.00	
	Steam coal for heating of bitumen @2 quintals per tonne of bitumen =2x0.144=0.288q					
0370	Coal (steam)	quintal	0.288	500.00	144.00	
2200	Carriage of steam coal	tonne	0.029	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen:					
0114	Beldar	day	0.57	736.00	419.52	
	(c) For screening and spreading premixed aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	5.00	736.00	3680.00	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	900.00	117.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
	(e) Misc:					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				17232.74	W
	Add 1 % Water charges on “W”				172.33	
	TOTAL				17405.07	X
	Add GST on “X” (multiplying factor 0.2127)				3702.06	
	TOTAL				21107.13	Y
	Add 15% CPOH on “Y”				3166.07	
	TOTAL				24273.20	Z
	Add Cess @ 1% on “Z”				242.73	
	Cost for 100 sqm.				24515.93	
	Cost per Sqm.				245.16	
	Say				245.15	

16.32.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	Refinery Modified Bitumen CRMB 55					
	(i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Modified Bitumen CRMB - 55 (Refinary produced) :52xl.8+56x0.9=144kg. or 0.144 tonne					
	MATERIAL					
7739	Modified Bitumen Refinary produced CRMB - 55	tonne	0.144	33100.00	4766.40	
2211	Carriage of Tar bitumen	tonne	0.144	0.00	0.00	
	Solvent 70gms/kg. for 0.144 t = 10.08kg					
2914	Solvent	kilogram	10.08	32.00	322.56	
2342	Carriage of solvent/ Diesel.	quintal	0.10	0.00	0.00	
	Stone chippings 13.2mm nominal size @ 1.80cum. per 100sqm.					
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100sqm.	cum	1.80	1400.00	2520.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100sqm	cum	0.90	1400.00	1260.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	0.00	0.00	
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.144=0.288q					
0370	Coal (steam)	quintal	0.288	500.00	144.00	
2200	Carriage of steam coal	tonne	0.029	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen:					
0114	Beldar	day	0.57	736.00	419.52	
	(c) For screening and spreading premixed aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	5.00	736.00	3680.00	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	900.00	117.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
	(e) Misc:					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				16388.61	W
	Add 1 % Water charges on “W”				163.89	
	TOTAL				16552.50	X
	Add GST on “X” (multiplying factor 0.2127)				3520.72	
	TOTAL				20073.22	Y
	Add 15% CPOH on “Y”				3010.98	
	TOTAL				23084.20	Z
	Add Cess @ 1% on “Z”				230.84	
	Cost for 100 sqm.				23315.04	
	Cost per Sqm.				233.15	
	Say				233.15	

16.33 2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).

16.33.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	Paving Asphalt 80/100					
	(i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size chippings.					
	(ii) Hot bitumen @56kg. per cum. Of aggregate @1.12cum. of 11.2mm nominal size.					
	Bitumen :52x2.25+56x1.12= 180kg					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality	tonne	0.18	33530.00	6035.40	
	Solvent 0.07x180=12.60kg.					
2914	Solvent	kilogram	12.6	32.00	403.20	
2211	Carriage of Tar bitumen	tonne	0.18	0.00	0.00	
2342	Carriage of solvent/ Diesel.	quintal	0.126	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	2.25	1400.00	3150.00	
	@1.80cum. per 100 sqm.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100 sqm	cum	1.12	1400.00	1568.00	
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum	cum	3.37	0.00	0.00	
	Steam coal for heating of bitumen @2 quintals per tonne of bitumen =2x0.18=0.36q					
0370	Coal (steam)	quintal	0.36	500.00	180.00	
2200	Carriage of steam coal	tonne	0.036	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen:					
0114	Beldar	day	0.71	736.00	522.56	
	(c) For screening and spreading premixed aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	6.25	736.00	4600.00	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	900.00	135.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
	(e) Misc:					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				19753.29	W
	Add 1 % Water charges on “W”				197.53	
	TOTAL				19950.82	X
	Add GST on “X” (multiplying factor 0.2127)				4243.54	
	TOTAL				24194.36	Y
	Add 15% CPOH on “Y”				3629.15	
	TOTAL				27823.51	Z
	Add Cess @ 1% on “Z”				278.24	
	Cost for 100 sqm.				28101.75	
	Cost per Sqm.				281.02	
	Say				281.00	

16.33.2 With paving Asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	Paving Asphalt 60/70					
	(i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size (ii) Hot bitumen @56kg. per cum. of stone aggregate@1.12cum. of 11.2mm nominal size size Bitumen :52x2.25+50xl. 12= 180kg					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality	tonne	0.18	41202.00	7416.36	
2211	Carriage of Tar bitumen	tonne	0.18	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25cum. per 100sqm	cum	2.25	1400.00	3150.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12cum. per 100sqm	cum	1.12	1400.00	1568.00	
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum.	cum	3.37	0.00	0.00	
0370	Coal (steam)	quintal	0.36	500.00	180.00	
2200	Carriage of steam coal	tonne	0.036	0.00	0.00	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen:					
0114	Beldar	day	0.71	736.00	522.56	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar 1.05x0.18)/0.267 = 0.71 Nos.	day	6.25	736.00	4600.00	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	900.00	135.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
	(e) Misc:					
0364	Wire brush	each	0.11	25.00	2.75	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	(with thick wire)					
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				20731.05	W
	Add 1 % Water charges on “W”				207.31	
	TOTAL				20938.36	X
	Add GST on “X” (multiplying factor 0.2127)				4453.59	
	TOTAL				25391.95	Y
	Add 15% CPOH on “Y”				3808.79	
	TOTAL				29200.74	Z
	Add Cess @ 1% on “Z”				292.01	
	Cost for 100 sqm.				29492.75	
	Cost per Sqm.				294.93	
	Say				294.95	

16.33.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Refinery Modified Bitumen CRMB 55					
	(i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. Of aggregate @1.12cum. of 11.2mm nominal size. 52x2.25+56x1.12=180kg					
7739	Modified Bitumen Refinary produced CRMB - 55 Solvent 0.07x180=12.60kg	tonne	0.18	33100.00	5958.00	
2914	Solvent	kilogram	12.6	32.00	403.20	
2211	Carriage of Tar bitumen	tonne	0.18	0.00	0.00	
2342	Carriage of solvent/ Diesel.	quintal	0.126	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25 cum. per 100sqm	cum	2.25	1400.00	3150.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12 cum. per 100sqm	cum	1.12	1400.00	1568.00	
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum.+ Steam coal for heating of bitumen @2 quintals per tonne of bitumen =2x0.18=0.36q	cum	3.37	0.00	0.00	
0370	Coal (steam)	quintal	0.36	500.00	180.00	
2200	Carriage of steam coal	tonne	0.036	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :					
0128	Mate	day	0.08	816.00	65.28	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen:					
0114	Beldar	day	0.71	736.00	522.56	
	(c) For screening and spreading premixed aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	6.25	736.00	4600.00	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	900.00	135.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
	(e) Misc:					
0364	Wire brush (with thick wire)	each	0.11	25.00	2.75	
0365	Soft brush	each	0.32	25.00	8.00	
9999	Brooms and gunny bags	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				19675.89	W
	Add 1 % Water charges on “W”				196.76	
	TOTAL				19872.65	X
	Add GST on “X” (multiplying factor 0.2127)				4226.91	
	TOTAL				24099.56	Y
	Add 15% CPOH on “Y”				3614.93	
	TOTAL				27714.49	Z
	Add Cess @ 1% on “Z”				277.14	
	Cost for 100 sqm.				27991.63	
	Cost per Sqm.				279.92	
	Say				279.90	

16.34 2 cm premix carpet surfacing with 2.4 cum of stone chippings 11.2 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen content) complying with IS : 8887, using 96 kg per cum of chippings, including consolidation with road roller of 6 to 9 tonne capacity etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm. MATERIAL Bitumen emulsion M.S. @ 96kg per cum. of aggregate 96x2.4=230kg =0.230t					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7742	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887-1995	tonne	0.23	33530.00	7711.90	
2211	Carriage of Tar bitumen	tonne	0.23	0.00	0.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 2.4cum. per 100 sqm	cum	2.40	1400.00	3360.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.40	0.00	0.00	
	LABOUR					
	(a) For mixing and spreading premix aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	3.54	736.00	2605.44	
	(b) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3950.00	158.00	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				14684.29	W
	Add 1 % Water charges on “W”				146.84	
	TOTAL				14831.13	X
	Add GST on “X” (multiplying factor 0.2127)				3154.58	
	TOTAL				17985.71	Y
	Add 15% CPOH on “Y”				2697.86	
	TOTAL				20683.57	Z
	Add Cess @ 1% on “Z”				206.84	
	Cost for 100 sqm.				20890.41	
	Cost per Sqm.				208.90	
	Say				208.90	

16.35 2.5 cm premix carpet surfacing with 3 cum of stone chippings 10 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen contents) complying with IS : 8887, using 96 kg per cum of chippings of road surface, including consolidation with road roller etc complete .

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Bitumen emulsion M.S. @ 96kg per cum. of aggregate 96x3 = 288 kg = 0.288 t					
7742	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887-1995	tonne	0.288	33530.00	9656.64	
2211	Carriage of Tar bitumen	tonne	0.288	0.00	0.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	3.00	1400.00	4200.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	@ 3.00 cum. per 100 sqm					
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	3.00	0.00	0.00	
	LABOUR					
	(a) For mixing and spreading premix aggregate :					
0130	Mistry	day	0.19	897.00	170.43	
0114	Beldar	day	4.10	736.00	3017.60	
	(b) Consolidation Charges					
0113	Chowkidar	day	0.27	736.00	198.72	
0101	Bhisti	day	0.11	816.00	89.76	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3350.00	368.50	
9999	Sundries	L.S.	9.49	2.27	21.54	
	TOTAL				17723.19	W
	Add 1 % Water charges on “W”				177.23	
	TOTAL				17900.42	X
	Add GST on “X” (multiplying factor 0.2127)				3807.42	
	TOTAL				21707.84	Y
	Add 15% CPOH on “Y”				3256.18	
	TOTAL				24964.02	Z
	Add Cess @ 1% on “Z”				249.64	
	Cost for 100 sqm.				25213.66	
	Cost per Sqm.				252.14	
	Say				252.15	

16.36 **Providing and laying Bitumen Penetration Macadam with hard stone aggregate of quality, size and grading as specified, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/ tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of aggregate spreader complete, including consolidation with road roller of minimum 8 to 10 tonne capacity to achieve specified values of compaction and surface accuracy :**

16.36.1 **For 50mm compacted thickness using coarse aggregate of size 50-20 mm graded @ 0.60 cum per 10 sqm key aggregate of size 12.5 mm graded @ 0.15 cum per 10 sqm. With paving asphalt grade VG - 10 @ 50 kg/ 10 sqm.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 370 sqm.					
	MATERIAL					
	Taking stone aggregate 40mm = 45%					
	20mm = 44%					
	11.2mm = 8%					
	Stone dust = 3%					
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	9.99	1400.00	13986.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	9.77	1425.00	13922.25	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1.78	1400.00	2492.00	
1159	Stone dust	cum	0.6	1100.00	660.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	2.33	1425.00	3320.25	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.66	1400.00	3724.00	
1159	Stone dust	cum	0.56	1100.00	616.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	9.99	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size i.e. 20 mm	cum	12.1	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	4.44	0.00	0.00	
2267	Carriage of Stone dust	cum	1.16	0.00	0.00	
2916	Paving Asphalt VG -10 of approved quality @ 50kg/10 sqm.	tonne	1.85	33530.00	62030.50	
2211	Carriage of Tar bitumen	tonne	1.85	0.00	0.00	
	(B) Labour:					
0114	Beldar for spreading stone metal	day	16.67	736.00	12269.12	
0114	Beldar for hand packing	day	5.33	736.00	3922.88	
0114	Beldar dry rolling	day	2.67	736.00	1965.12	
0114	Beldar Bajri spreader	day	1.33	736.00	978.88	
0138	Sprayer (for bitumen, tar etc.)	day	0.67	816.00	546.72	
0114	Beldar for spreading key aggregate	day	1.33	736.00	978.88	
0114	Beldar for spraying bitumen	day	6.67	736.00	4909.12	
0114	Beldar of power roller	day	0.67	736.00	493.12	
0128	Mate	day	1.77	816.00	1444.32	
	(C) Machinery :					
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.45	900.00	405.00	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.61	3350.00	2043.50	
9999	Misc. items as spray nozzle, joint paper, coconut oil, country soap etc.	L.S.	351	2.27	796.77	
	TOTAL				131504.43	W
	Add 1 % Water charges on “W”				1315.04	
	TOTAL				132819.47	X
	Add GST on “X” (multiplying factor 0.2127)				28250.70	
	TOTAL				161070.17	Y
	Add 15% CPOH on “Y”				24160.53	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				185230.70	Z
	Add Cess @ 1% on "Z"				1852.31	
	Cost for 370 Sqm.				187083.01	
	Cost per sqm.				505.63	
	Say				505.65	

16.36.2 For 75 mm compacted thickness in two layers using stone aggregate of size 63-41 mm graded @ 0.90 cum per 10 sqm key aggregate of size 20.0 mm graded @ 0.18 cum per 10 sqm. With paving asphalt grade VG - 10 @ 68 kg/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 300 sqm.					
	MATERIAL					
	Taking output as 300 sqm. for single layer.					
	Coarse agg. = 300/10x0.90 = 27 cum.					
	Key agg = 300/10x0.18 = 5.4 cum.					
	Bitumen = 300/10x68 = 2.04 t.					
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	8.10	0.00	0.00	
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	8.10	1100.00	8910.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	14.58	1425.00	20776.50	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	4.32	1400.00	6048.00	
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	2.05	1400.00	2870.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.57	1400.00	3598.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.81	1400.00	1134.00	
2916	Paving Asphalt VG -10 of approved quality	tonne	2.04	33530.00	68401.20	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	24.33	0.00	0.00	
2211	Carriage of Tar bitumen	tonne	2.04	0.00	0.00	
	LABOUR					
0114	Beldar for spreading stone metal	day	25.00	736.00	18400.00	
0114	Beldar for hand packing	day	8.00	736.00	5888.00	
0114	Beldar dry rolling	day	4.00	736.00	2944.00	
0114	Beldar /Bajri spreader	day	2.00	736.00	1472.00	
0138	Sprayer (for bitumen, tar etc.)	day	1.00	816.00	816.00	
0114	Beldar for spreading key aggregate	day	2.00	736.00	1472.00	
0114	Beldar for spraying bitumen	day	10.00	736.00	7360.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	1.00	736.00	736.00	
	road roller					
0128	Mate	day	2.65	816.00	2162.40	
	MACHINERY					
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.50	900.00	450.00	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.75	3350.00	2512.50	
9999	Misc. items as spray nozzle, joint paper, coconut oil, country soap etc.	L.S.	429	2.27	973.83	
	TOTAL				156924.43	W
	Add 1 % Water charges on “W”				1569.24	
	TOTAL				158493.67	X
	Add GST on “X” (multiplying factor 0.2127)				33711.60	
	TOTAL				192205.27	Y
	Add 15% CPOH on “Y”				28830.79	
	TOTAL				221036.06	Z
	Add Cess @ 1% on “Z”				2210.36	
	Cost for 300 Sqm.				223246.42	
	Cost per sqm.				744.15	
	Say				744.15	

16.37 Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).

16.37.1 25 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for surface area of 174 sqm for single layer of 25 mm finished thickness.					
	MATERIAL					
	Taking wearing coat as 10 tonne and density as 2.3 gm/c.c Volume of bitumen mastic = 10000/2300= 4.35 cum surface area = 4.35/0.025 = 174 sqm.					
	(i) Bitumen of penetration 85/25 @ 10.2% by weight of mix					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	1.020	38250.00	39015.00	
2211	Carriage of Tar bitumen	tonne	1.020	0.00	0.00	
	(ii) Weight of coarse aggregate @ 40%					
	10x(1000 - 150) x 40/100 = 3400 kg.					
	Stone aggregate :(3400/43.38)x0.0283 = 2.22 cum.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.200	1425.00	285.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.020	1400.00	2828.00	
	(iii) Weight of fine aggregate @ 15% 10x850 x15/100 = 1275 kg., volume of fine aggregate:(1275/43.103)x0.0283 =0.83 cum					
1159	Stone dust	cum	0.830	1100.00	913.00	
	(iv) Weight of lime stone dust @ 45% =10x(850- 340-127.5) = 3825 kg., Volume of lime stone dust 3825/2200 =1.74 cum.					
0784	Marble dust/ powder	cum	1.740	1180.00	2053.20	
	(v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm=174x0.005/10 = 0.087 cum say 0.09 cum					
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.090	1400.00	126.00	
	Bitumen for precoated stone chipping @ 2% =0.09x1600x2/100= 3 kg.					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.003	38250.00	114.75	
2211	Carriage of Tar bitumen	tonne	0.003	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.310	0.00	0.00	
	2.02+0.20 + 0.09=2.31 cum.					
2267	Carriage of Stone dust	cum	0.830	0.00	0.00	
2208	Carriage of Lime	cum	1.740	0.00	0.00	
	LABOUR					
0139	Skilled Beldar (for floor rubbing etc.)	day	15.000	816.00	12240.00	
0130	Mistry	day	5.000	897.00	4485.00	
0138	Sprayer (for bitumen, tar etc.)	day	35.000	816.00	28560.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.500	816.00	2040.00	
0128	Mate	day	5.000	816.00	4080.00	
0016	Mastic Cooker	day	5.000	850.00	4250.00	
9999	sundries (Sealing of joints, placing angles, wastage materials)	L.S.	1532.700	2.27	3479.23	
	TOTAL				104469.18	W
	Add 1 % Water charges on “W”				1044.69	
	TOTAL				105513.87	X
	Add GST on “X” (multiplying factor 0.2127)				22442.80	
	TOTAL				127956.67	Y
	Add 15% CPOH on “Y”				19193.50	
	TOTAL				147150.17	Z
	Add Cess @ 1% on “Z”				1471.50	
	Cost for 174 sqm				148621.67	
	Cost per sqm				854.15	
	Say				854.15	

16.37.2 40 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for surface area of 108.75sqm for single layer of 40 mm finished thickness.					
	MATERIAL					
	Taking wearing coat as 10 tonne and density as 2.3 gm/c.c Volume of bitumen mastic = 10000/2300= 4.35 cum surface area = 4.35/0.040 = 108.75 sqm.					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality @ 10.2% by weight of mix	tonne	1.020	38250.00	39015.00	
2211	Carriage of Tar bitumen	tonne	1.020	0.00	0.00	
	(ii) Weight of coarse aggregate @ 40%					
	10x(1000 - 150) x 40/100 = 3400 kg.					
	Stone aggregate : (3400/43.38)x0.0283 = 2.22 cum.					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.200	1425.00	285.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.020	1400.00	2828.00	
	(iii) Weight of fine aggregate @ 15% = 10x850 x15/100 = 1275 kg., volume of fine aggregate: (1275/43.103)x0.0283 =0.83 cum					
1159	Stone dust	cum	0.830	1100.00	913.00	
	(iv) Weight of lime stone dust @ 45% = 10x(850-340-127.5) = 3825 kg., Volume of lime stone dust 3825/2200 =1.74 cum.					
0784	Marble dust/ powder	cum	1.740	1180.00	2053.20	
	(v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm=108.75x0.005/10 = 0.054 cum					
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.054	1400.00	75.60	
	Bitumen for precoated stone chipping @ 2%=0.054x1600x2/100= 1.7 kg say 2 kg					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.002	38250.00	76.50	
2211	Carriage of Tar bitumen	tonne	0.002	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.274	0.00	0.00	
	2.02+0.20 + 0.054 =2.274 cum					
2267	Carriage of Stone dust	cum	0.830	0.00	0.00	
2208	Carriage of Lime	cum	1.740	0.00	0.00	
	for mastic cooker (Taking capacity of cooker as one tonne)					
	LABOUR					
0139	Skilled Beldar (for floor rubbing etc.)	day	15.000	816.00	12240.00	
0130	Mistry	day	5.000	897.00	4485.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0138	Sprayer (for bitumen, tar etc.)	day	35.000	816.00	28560.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.500	816.00	2040.00	
0128	Mate	day	5.000	816.00	4080.00	
0016	Mastic Cooker	day	5.000	850.00	4250.00	
9999	sundries (Sealing of joints, placing angles, wastage materials)	L.S.	1532.700	2.27	3479.23	
	TOTAL				104380.53	W
	Add 1 % Water charges on “W”				1043.81	
	TOTAL				105424.34	X
	Add GST on “X” (multiplying factor 0.2127)				22423.76	
	TOTAL				127848.10	Y
	Add 15% CPOH on “Y”				19177.22	
	TOTAL				147025.32	Z
	Add Cess @ 1% on “Z”				1470.25	
	Cost for 108.75 sqm				148495.57	
	Cost per sqm				1365.48	
	Say				1365.50	

16.38 2.5 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 1.65 cum per 100 sqm and coarse sand @ 1.65 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :

16.38.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	80/100 bitumen @56kg. per cum. of					
	aggregate and 128kg. per cum. of sand:					
	56x1.65=92.4kg. = 0.092t +					
	128x1.65 = 211.2kg = 0.211t					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality	tonne	0.303	33530.00	10159.59	
	Solvent 0.070 kg. x 303 kg. = 21.21kg					
2914	Solvent	kilogram	21.21	32.00	678.72	
2211	Carriage of Tar bitumen	tonne	0.303	0.00	0.00	
2342	Carriage of solvent/ Diesel.	quintal	0.212	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1400.00	1386.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1400.00	924.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	0.00	0.00	
0370	Coal (steam)	quintal	0.606	500.00	303.00	
2200	Carriage of steam coal	tonne	0.061	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0982	Coarse sand (zone III)	cum	1.65	1450.00	2392.50	
2203	Carriage of Coarse sand	cum	1.65	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.16	816.00	130.56	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen :					
0114	Beldar	day	1.19	736.00	875.84	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.24	897.00	215.28	
0114	Beldar	day	6.12	736.00	4504.32	
	(d) Consolidation charges :					
0113	Chowkidar	day	0.34	736.00	250.24	
	(at barriers for night watch and for road roller)					
0101	Bhisti	day	0.13	816.00	106.08	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3350.00	435.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	900.00	189.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3950.00	197.50	
	(e) Misc :					
	Wire brush (with thick wire)					
0364	Wire brush	each	0.13	25.00	3.25	
0365	Soft brush	each	0.40	25.00	10.00	
9999	Brooms and gunny bags	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.97	2.27	20.36	
	TOTAL				24858.77	W
	Add 1 % Water charges on “W”				248.59	
	TOTAL				25107.36	X
	Add GST on “X” (multiplying factor 0.2127)				5340.34	
	TOTAL				30447.70	Y
	Add 15% CPOH on “Y”				4567.16	
	TOTAL				35014.86	Z
	Add Cess @ 1% on “Z”				350.15	
	Cost for 100 sqm.				35365.01	
	Cost per sqm.				353.65	
	Say				353.65	

16.38.2 With paving Asphalt grade VG - 30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm. 60/70 bitumen @56kg. per cum. of aggregate and 128kg. per cum. of sand:					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	56x1.65=92.4kg. = 0.092t +					
	128x1.65 = 211.2kg = 0.211t					
	Total= 0.303t					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality	tonne	0.303	41202.00	12484.21	
2211	Carriage of Tar bitumen	tonne	0.303	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1400.00	1386.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1400.00	924.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	0.00	0.00	
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.303=0.606q					
0370	Coal (steam)	quintal	0.606	500.00	303.00	
2200	Carriage of steam coal	tonne	0.061	0.00	0.00	
0982	Coarse sand (zone III)	cum	1.65	1450.00	2392.50	
2203	Carriage of Coarse sand	cum	1.65	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.16	816.00	130.56	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen :					
0114	Beldar	day	1.19	736.00	875.84	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.24	897.00	215.28	
0114	Beldar	day	6.12	736.00	4504.32	
	(d) Consolidation charges :					
0113	Chowkidar (at barriers for night watch and for road roller)	day	0.34	736.00	250.24	
0101	Bhisti	day	0.13	816.00	106.08	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3350.00	435.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	900.00	189.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3950.00	197.50	
	(e) Misc :					
0364	Wire brush (with thick wire)	each	0.13	25.00	3.25	
0365	Soft brush	each	0.40	25.00	10.00	
9999	Brooms and gunny bags	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.97	2.27	20.36	
	TOTAL				26504.67	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				265.05	
	TOTAL				26769.72	X
	Add GST on "X" (multiplying factor 0.2127)				5693.92	
	TOTAL				32463.64	Y
	Add 15% CPOH on "Y"				4869.55	
	TOTAL				37333.19	Z
	Add Cess @ 1% on "Z"				373.33	
	Cost for 100 sqm.				37706.52	
	Cost per sqm.				377.07	
	Say				377.05	

16.38.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	MATERIAL					
7739	Modified Bitumen Refinary produced CRMB - 55 @56kg. per cum. of aggregate and 128kg. per cum. of sand:	tonne	0.303	33100.00	10029.30	
	56x1.65=92.4kg. = 0.092t +					
	128x1.65 = 211.2kg = 0.211t					
	Total = 0.303 t					
2914	Solvent	kilogram	21.21	32.00	678.72	
	0.070 kg. x 303 kg. = 21.21kg					
2211	Carriage of Tar bitumen	tonne	0.303	0.00	0.00	
2342	Carriage of solvent/ Diesel.	quintal	0.212	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1400.00	1386.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1400.00	924.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	0.00	0.00	
0370	Coal (steam)	quintal	0.606	500.00	303.00	
2200	Carriage of steam coal	tonne	0.061	0.00	0.00	
0982	Coarse sand (zone III)	cum	1.65	1450.00	2392.50	
2203	Carriage of Coarse sand	cum	1.65	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.16	816.00	130.56	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen :					
0114	Beldar	day	1.19	736.00	875.84	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0130	Mistry	day	0.24	897.00	215.28	
0114	Beldar	day	6.12	736.00	4504.32	
	(d) Consolidation charges :					
0113	Chowkidar	day	0.34	736.00	250.24	
0101	Bhisti	day	0.13	816.00	106.08	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3350.00	435.50	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	900.00	189.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3950.00	197.50	
	(e) Misc :					
0364	Wire brush (with thick wire)	each	0.13	25.00	3.25	
0365	Soft brush	each	0.40	25.00	10.00	
9999	Brooms and gunny bags	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.97	2.27	20.36	
	TOTAL				24728.48	W
	Add 1 % Water charges on “W”				247.28	
	TOTAL				24975.76	X
	Add GST on “X” (multiplying factor 0.2127)				5312.34	
	TOTAL				30288.10	Y
	Add 15% CPOH on “Y”				4543.22	
	TOTAL				34831.32	Z
	Add Cess @ 1% on “Z”				348.31	
	Cost for 100 sqm.				35179.63	
	Cost per sqm.				351.80	
	Say				351.80	

16.39 4 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 2.60 cum per 100 sqm and coarse sand @ 2.60 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :

16.39.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 t	tonne	0.479	33530.00	16060.87	
2914	Solvent 0.70kg.x479=33.53kg	kilogram	33.53	32.00	1072.96	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2342	Carriage of solvent/ Diesel.	quintal	0.335	0.00	0.00	
2211	Carriage of Tar bitumen	tonne	0.479	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1400.00	2184.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1400.00	1456.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	0.00	0.00	
0982	Coarse sand (zone III)	cum	2.60	1450.00	3770.00	
2203	Carriage of Coarse sand	cum	2.60	0.00	0.00	
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen = 2x0.479=0.958q					
0370	Coal (steam)	quintal	0.958	500.00	479.00	
2200	Carriage of steam coal	tonne	0.096	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.16	816.00	130.56	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen :					
0114	Beldar	day	1.88	736.00	1383.68	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.31	897.00	278.07	
0114	Beldar	day	9.46	736.00	6962.56	
	(d) Consolidation charges :					
0113	Chowkidar	day	0.45	736.00	331.20	
0101	Bhisti	day	0.18	816.00	146.88	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3350.00	603.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.30	900.00	270.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3950.00	118.50	
	(e) Misc :					
0364	Wire brush (with thick wire)	each	0.09	25.00	2.25	
0365	Soft brush	each	0.27	25.00	6.75	
9999	Brooms and gunny bags	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	16.12	2.27	36.59	
	TOTAL				37365.77	W
	Add 1 % Water charges on “W”				373.66	
	TOTAL				37739.43	X
	Add GST on “X” (multiplying factor 0.2127)				8027.18	
	TOTAL				45766.61	Y
	Add 15% CPOH on “Y”				6864.99	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				52631.60	Z
	Add Cess @ 1% on "Z"				526.32	
	Cost for 100 sqm.				53157.92	
	Cost per sqm.				531.58	
	Say				531.60	

16.39.2 With paving asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 t	tonne	0.479	41202.00	19735.76	
2211	Carriage of Tar bitumen	tonne	0.479	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1400.00	2184.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1400.00	1456.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	0.00	0.00	
0982	Coarse sand (zone III)	cum	2.60	1450.00	3770.00	
2203	Carriage of Coarse sand	cum	2.60	0.00	0.00	
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.479=0.958 qtl					
0370	Coal (steam)	quintal	0.958	500.00	479.00	
2200	Carriage of steam coal	tonne	0.096	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.16	816.00	130.56	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen :					
0114	Beldar	day	1.88	736.00	1383.68	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.31	897.00	278.07	
0114	Beldar	day	9.46	736.00	6962.56	
	(d) Consolidation charges :					
0113	Chowkidar	day	0.45	736.00	331.20	
0101	Bhisti	day	0.18	816.00	146.88	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3350.00	603.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.30	900.00	270.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3950.00	118.50	
	(e) Brushes etc. for cleaning :-					
0364	Wire brush (with thick wire)	each	0.09	25.00	2.25	
0365	Soft brush	each	0.27	25.00	6.75	
9999	Brooms and gunny bags	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	16.12	2.27	36.59	
	TOTAL				39967.70	W
	Add 1 % Water charges on “W”				399.68	
	TOTAL				40367.38	X
	Add GST on “X” (multiplying factor 0.2127)				8586.14	
	TOTAL				48953.52	Y
	Add 15% CPOH on “Y”				7343.03	
	TOTAL				56296.55	Z
	Add Cess @ 1% on “Z”				562.97	
	Cost for 100 sqm.				56859.52	
	Cost per sqm.				568.60	
	Say				568.60	

16.39.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	MATERIAL					
7739	Modified Bitumen Refinary produced CRMB - 55 @56kg. per cum. of aggregate and 128kg. per cum. of sand:	tonne	0.479	33100.00	15854.90	
	56x2.60=145.6kg. = 0.146t +					
	128x2.60 = 332.8kg = 0.333t					
	Total = 0.479 tonne					
2914	Solvent	kilogram	33.53	32.00	1072.96	
	0.70kg.x479=33.53kg.					
2342	Carriage of solvent/ Diesel.	quintal	0.335	0.00	0.00	
2211	Carriage of Tar bitumen	tonne	0.479	0.00	0.00	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1400.00	2184.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1400.00	1456.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	0.00	0.00	
0982	Coarse sand (zone III)	cum	2.60	1450.00	3770.00	
2203	Carriage of Coarse sand	cum	2.60	0.00	0.00	
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen = 2x0.479=0.958q					
0370	Coal (steam)	quintal	0.958	500.00	479.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2200	Carriage of steam coal	tonne	0.096	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate : (a) For cleaning :					
0128	Mate	day	0.16	816.00	130.56	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(b) For heating bitumen :					
0114	Beldar	day	1.88	736.00	1383.68	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.31	897.00	278.07	
0114	Beldar	day	9.46	736.00	6962.56	
	(d) Consolidation charges :					
0113	Chowkidar	day	0.45	736.00	331.20	
0101	Bhisti	day	0.18	816.00	146.88	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3350.00	603.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.30	900.00	270.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3950.00	118.50	
	(e) Misc :					
0364	Wire brush (with thick wire)	each	0.09	25.00	2.25	
0365	Soft brush	each	0.27	25.00	6.75	
9999	Brooms and gunny bags	L.S.	5.33	2.27	12.10	
9999	Sundries	L.S.	16.12	2.27	36.59	
	TOTAL				37159.80	W
	Add 1 % Water charges on “W”				371.60	
	TOTAL				37531.40	X
	Add GST on “X” (multiplying factor 0.2127)				7982.93	
	TOTAL				45514.33	Y
	Add 15% CPOH on “Y”				6827.15	
	TOTAL				52341.48	Z
	Add Cess @ 1% on “Z”				523.41	
	Cost for 100 sqm.				52864.89	
	Cost per sqm.				528.65	
	Say				528.65	

16.40 Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality @ 128kg/cum. of sand 128x0.60 =	tonne	0.077	33530.00	2581.81	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	77 kg. = 0.077 tonne					
2211	Carriage of Tar bitumen	tonne	0.077	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.60	1450.00	870.00	
2203	Carriage of Coarse sand	cum	0.60	0.00	0.00	
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.077=0.154 qtl					
0370	Coal (steam)	quintal	0.154	500.00	77.00	
2200	Carriage of steam coal	tonne	0.015	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate : (a) For cleaning :					
0128	Mate	day	0.06	816.00	48.96	
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.97	736.00	713.92	
	(b) For heating bitumen :					
0114	Beldar	day	0.30	736.00	220.80	
	0.38/96x76.8					
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0114	Beldar	day	1.11	736.00	816.96	
	11.39/0.75x0.60					
0130	Mistry	day	0.05	897.00	44.85	
	0.06/0.75x0.60					
	(d) Miscellaneous :					
0113	Chowkidar	day	0.15	736.00	110.40	
0101	Bhisti	day	0.06	816.00	48.96	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3350.00	201.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.05	900.00	45.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.01	3950.00	39.50	
	(e) Misc :					
0364	Wire brush (with thick wire)	each	0.05	25.00	1.25	
0365	Soft brush	each	0.12	25.00	3.00	
9999	Sundries	L.S.	18.20	2.27	41.31	
	TOTAL				6225.36	W
	Add 1 % Water charges on “W”				62.25	
	TOTAL				6287.61	X
	Add GST on “X” (multiplying factor 0.2127)				1337.37	
	TOTAL				7624.98	Y
	Add 15% CPOH on “Y”				1143.75	
	TOTAL				8768.73	Z
	Add Cess @ 1% on “Z”				87.69	
	Cost for 100 sqm.				8856.42	
	Cost per sqm.				88.56	
	Say				88.55	

16.41 Providing and laying seal coat over prepared surface of road with bitumen heated in bitumen boiler fitted with the spray set spraying using 98 kg of bitumen of grade VG - 10 and blinding surface with 0.90 cum of stone aggregate of 6.7 mm size (Passing 11.2 mm sieve and retained on 2.36 mm sieve) per 100 sqm of road surface, including rolling and finishing with power road roller all complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	MATERIAL					
2916	Paving Asphalt VG -10 of approved quality	tonne	0.098	33530.00	3285.94	
2211	Carriage of Tar bitumen	tonne	0.098	0.00	0.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	0.90	1425.00	1282.50	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.90	0.00	0.00	
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.098=1.96 qtl					
0370	Coal (steam)	quintal	1.96	500.00	980.00	
2200	Carriage of steam coal	tonne	0.196	0.00	0.00	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For heating and spraying bitumen :					
0130	Mistry	day	0.04	897.00	35.88	
0138	Sprayer (for bitumen, tar etc.)	day	0.06	816.00	48.96	
0114	Beldar	day	0.69	736.00	507.84	
	(b) For cleaning :					
0128	Mate	day	0.11	816.00	89.76	
0114	Beldar	day	1.40	736.00	1030.40	
0115	Coolie	day	1.40	736.00	1030.40	
	(c) For screening and spraying aggregate :					
0128	Mate	day	0.05	816.00	40.80	
0114	Beldar	day	0.51	736.00	375.36	
	(d) Misc :					
0113	Chowkidar	day	0.15	736.00	110.40	
0101	Bhisti	day	0.06	816.00	48.96	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3350.00	201.00	
0007	Hire charges of Coaltar Sprayer	day	0.06	400.00	24.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	900.00	54.00	
	(e) Misc :					
0364	Wire brush (with thick wire)	each	0.05	25.00	1.25	
0365	Soft brush	each	0.12	25.00	3.00	
9999	Sundries	L.S.	18.20	2.27	41.31	
9999	Brooms and gunny bags	L.S.	2.73	2.27	6.20	
	TOTAL				9197.96	W
	Add 1 % Water charges on “W”				91.98	
	TOTAL				9289.94	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				1975.97	
	TOTAL				11265.91	Y
	Add 15% CPOH on "Y"				1689.89	
	TOTAL				12955.80	Z
	Add Cess @ 1% on "Z"				129.56	
	Cost for 100 sqm.				13085.36	
	Cost per sqm.				130.85	
	Say				130.85	

16.42 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 cum.					
	MATERIAL					
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1400.00	728.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1425.00	313.50	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1400.00	154.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.445	1450.00	645.25	
2203	Carriage of Coarse sand	cum	0.445	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.32	5156.00	1649.92	
2209	Carriage of Cement	tonne	0.32	0.00	0.00	
	LABOUR					
0155	Mason (average)	day	0.10	857.00	85.70	
0114	Beldar	day	1.63	736.00	1199.68	
0101	Bhisti	day	0.70	816.00	571.20	
	MACHINERY					
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with hooper	day	0.077	900.00	69.30	
0012	Vibrator (Needle type 40 mm)	day	0.07	400.00	28.00	
9999	Sundries	L.S.	26.00	2.27	59.02	
	Side shuttering					
	Taking the slab to be 5cm thick and width to be 6 metre, length of road 27 metre = 9.90/24.30 = 0.407 sqm					
5.9.1	Rate as per item no 5.9.1 of SH : Reinforced cement concrete work	sqm	0.407	392.15	159.61	A
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				5666.43	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W-A"				55.07	
	TOTAL				5721.50	X
	Add GST on "X-A" (multiplying factor 0.2127)				1183.01	
	TOTAL				6904.51	Y
	Add 15% CPOH on "Y-A"				1011.74	
	TOTAL				7916.25	Z
	Add Cess @ 1% on "Z-A"				77.57	
	Cost for 1 cum.				7993.82	
	Say				7993.80	

16.43 Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately).

Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.

16.43.1 Cement concrete prepared with batch mixing machine

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 cum.					
	MATERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.34	5156.00	1753.04	
2209	Carriage of Cement	tonne	0.34	0.00	0.00	
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1400.00	728.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1425.00	313.50	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1400.00	154.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.445	1450.00	645.25	
2203	Carriage of Coarse sand	cum	0.445	0.00	0.00	
	LABOUR for mixing and laying					
0114	Beldar	day	2.00	736.00	1472.00	
0101	Bhisti	day	0.27	816.00	220.32	
0123	Mason 1st class	day	0.05	897.00	44.85	
0124	Mason 2nd class	day	0.05	816.00	40.80	
0128	Mate	day	0.04	816.00	32.64	
	For compaction by vibrator					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0155	Mason (average)	day	0.07	857.00	59.99	
0114	Beldar	day	0.07	736.00	51.52	
	MACHINERY					
0004	Production cost of concrete by batch mix plan (Assuming 25 cum. per day)	day	1.00	450.00	450.00	
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc	cum	1.00	250.00	250.00	
0021	Pin vibrator (SHP) with 50 cum. output per day	day	0.025	300.00	7.50	
0022	Surface Vibrator with 25 cum. output per day	day	0.05	350.00	17.50	
	Add for steel form work					
16.43 B	Rate as per Item Number 16.43B of SH: Road work	cum	1.00	1046.90	1046.90	
9999	Cutting and making joints	L.S.	50.00	2.27	113.50	
	Total				7401.31	W
	Add 1 % Water charges on “W”				74.01	
	Total				7475.32	X
	Add GST on “X” (multiplying factor 0.2127)				1590.00	
	Total				9065.32	Y
	Add 15% CPOH on “Y”				1359.80	
	Total				10425.12	Z
	Add Cess @ 1% on “Z”				104.25	
	Cost per cum				10529.37	
	Cost for 1 cum				10529.37	
	Say				10529.35	

16.43.2 Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.34	5156.00	1753.04	
2209	Carriage of Cement	tonne	0.34	0.00	0.00	
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1400.00	728.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1425.00	313.50	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1400.00	154.00	
0982	Coarse sand (zone III)	cum	0.445	1450.00	645.25	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	0.00	0.00	
2203	Carriage of Coarse sand	cum	0.445	0.00	0.00	
	LABOUR :- FOR MIXING AND LAYING					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	2.00	736.00	1472.00	
0101	Bhisti	day	0.27	816.00	220.32	
0123	Mason 1st class	day	0.05	897.00	44.85	
0124	Mason 2nd class	day	0.05	816.00	40.80	
0128	Mate	day	0.04	816.00	32.64	
	For compaction by vibrator					
0155	Mason (average)	day	0.07	857.00	59.99	
0114	Beldar	day	0.07	736.00	51.52	
	MACHINERY					
0004	Production cost of concrete by batch mix plant. (Assuming 25 cum. per day)	cum	1.00	450.00	450.00	
0029	Carriage of concrete by transit mixer.	km/ cum	10.00	40.00	400.00	
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	1.00	250.00	250.00	
0021	Pin vibrator	day	0.025	300.00	7.50	
	(SHP) with 50 cum. output per day					
0022	Surface Vibrator	day	0.05	350.00	17.50	
	with 25 cum. output per day					
	Add for steel form work					
16.43B	Rate as per Item Number 16.43B of SH: Road work	cum	1.00	1046.90	1046.90	
9999	Cutting and making joints	L.S.	50.00	2.27	113.50	
	TOTAL				7801.31	W
	Add 1 % Water charges on “W”				78.01	
	TOTAL				7879.32	X
	Add GST on “X” (multiplying factor 0.2127)				1675.93	
	TOTAL				9555.25	Y
	Add 15% CPOH on “Y”				1433.29	
	TOTAL				10988.54	Z
	Add Cess @ 1% on “Z”				109.89	
	Cost per cum.				11098.43	
	Say				11098.45	

16.43B Annexure ‘B’ to Item number 16.43

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	ANALYSIS OF ANNEXTURE ‘B’ 16.43B (Required in 16.43)					
	Details of cost for 85.00 cum					
	STEEL FORM WORK :					
	Part-I Cost of materials :					
	Assuming that pavement 30m long 22.5m wide and 0.30m deep having panel size 6.15x4.61x0.30m or 8.50cu. laid in a day of 8 hrs. Hence form work to be provided for 2 days.					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Channel ISJC 300 for 50 slab of size 6.15mx4.61m=22x30.75+2x46.10 =768.70 m					
	Total for 500 slabs = 768.70mx10=7687.00 m					
	7687 m @ 33.10 kg/ m = 254440 kg = 2544.40 q					
	Assuming that channel will become unserviceable after use for 5000 slab (100 times) and salvage value of steel shall fetch 20% of its basic cost. Qty for using once =2544.40*0.80/5000= 0.407q					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.407	5965.00	2427.76	
2205	Carriage of Steel	tonne	0.041	0.00	0.00	
	Part-II Labour for assembling, erection, dismeritelling and cleaning the shuttering. Assuming that 255 labour for steel shuttering shall be required as compared to timber shuttering. Contact area of 50 slabs of steel shuttering.					
	Long channel = 11x20x0.30 = 66.00					
	= 2x45.10x0.30 = 27.06					
	Total for 500 slabs= 93.06x10=930.60					
	LABOUR					
0103	Blacksmith 2nd class	day	28.60	816.00	23337.60	
0114	Beldar	day	28.60	736.00	21049.60	
	Carriage of steel for extra lead of runway					
0114	Beldar	day	57.30	736.00	42172.80	
	TOTAL				88987.76	
	Cost for 85.00 cum				88987.76	
	Cost per cum.				1046.91	
	Say				1046.90	

16.44 Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 litre					
	MATERIAL					
7254	Hardening compound	litre	1.00	39.00	39.00	
	(including cartage)					
	TOTAL				39.00	W
	Add 1 % Water charges on "W"				0.39	
	TOTAL				39.39	X
	Add GST on "X" (multiplying factor 0.2127)				8.38	
	TOTAL				47.77	Y
	Add 15% CPOH on "Y"				7.17	
	TOTAL				54.94	Z
	Add Cess @ 1% on "Z"				0.55	
	Cost per litre				55.49	
	Say				55.50	

16.45 Providing and fixing pre-moulded joint filler in expansion joints of RCC roads / CC pavements after making the joints dust free with high pressure air jet cleaners, all complete as per direction of the Engineer-in-Charge. (Pre-moulded joint fillers shall be made of bitumen hot sealing compound impregnated fibre board having impregnation more than 35%, conforming to IS:1838 for fibre board and IS: 1834 for hot sealing bitumen compound grade A.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 12 mm thick 15cm deep and 300m in length					
	MATERIAL					
0317	Premoulded joint filler board 12 mm thick (Rate inclusive of carriage) = 300x0.15 = 45 sqm.	sqm	45.00	380.00	17100.00	
	Labour for cutting the board in strips, making the joints clean and dust free and fixing etc. :					
0112	Carpenter 2nd class	day	1.00	816.00	816.00	
0114	Beldar	day	3.00	736.00	2208.00	
9999	Sundries	L.S.	26.91	2.27	61.09	
	TOTAL				20185.09	W
	Add 1 % Water charges on “W”				201.85	
	TOTAL				20386.94	X
	Add GST on “X” (multiplying factor 0.2127)				4336.30	
	TOTAL				24723.24	Y
	Add 15% CPOH on “Y”				3708.49	
	TOTAL				28431.73	Z
	Add Cess @ 1% on “Z”				284.32	
	Cost for 300m length, 12mm width and 15cm depth				28716.05	
	Cost for one cm. depth one cm. width per metre length.				5.32	
	Say				5.30	

16.46 Providing and filling in position rubberized bitumen hot sealing compound for sealing of expansion joints in roads / pavements all complete as per direction of the Engineer-in-Charge.

16.46.1 Using grade ‘A’ sealing compound conforming to IS: 1834.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 12 mm wide 25 mm deep and 300 metres in length.					
	Sealing compound-					
	300x0.012x0.025 = 0.09cum.					
	Weight 1020 kg. per cum. = 1020x0.09 = 91.80 kg					
	MATERIAL					
0314	Bitumen hot sealing compound : grade A	kilogram	91.80	30.00	2754.00	
2211	Carriage of Tar bitumen	tonne	0.092	0.00	0.00	
	91.8 kg = 0.0918 Say 0.092 tonne					
	Labour for filling :					
0124	Mason 2nd class	day	1.00	816.00	816.00	
0114	Beldar	day	2.50	736.00	1840.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	20.67	2.27	46.92	
	TOTAL				5456.92	W
	Add 1 % Water charges on "W"				54.57	
	TOTAL				5511.49	X
	Add GST on "X" (multiplying factor 0.2127)				1172.29	
	TOTAL				6683.78	Y
	Add 15% CPOH on "Y"				1002.57	
	TOTAL				7686.35	Z
	Add Cess @ 1% on "Z"				76.86	
	Cost for 12 mm depth, 25 mm width and 300m length				7763.21	
	Cost for one cm. depth one cm. width per metre length.				8.63	
	Say				8.65	

16.47 Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete.

16.47.1 New work (Two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10sqm.					
	MATERIAL					
	1st Coat - 1.66 +					
	2nd Coat -1.13					
	Total = 2.79					
7256	Superior quality road marking paint (water based)	litre	2.79	140.00	390.60	
9977	Carriage of paint	L.S.	5.07	2.27	11.51	
	LABOUR					
0131	Painter	day	0.54	816.00	440.64	
0114	Beldar	day	0.54	736.00	397.44	
9999	Sundries	L.S.	36.40	2.27	82.63	
	(including painting brush, wire brush, labour for controlling traffic and other T&P etc.)					
	TOTAL				1322.82	W
	Add 1 % Water charges on "W"				13.23	
	TOTAL				1336.05	X
	Add GST on "X" (multiplying factor 0.2127)				284.18	
	TOTAL				1620.23	Y
	Add 15% CPOH on "Y"				243.03	
	TOTAL				1863.26	Z
	Add Cess @ 1% on "Z"				18.63	
	Cost for 10 sqm.				1881.89	
	Cost per sqm.				188.19	
	Say				188.20	

16.47.2 Old work (One or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10sqm.					
	MATERIAL					
7256	Superior quality road marking paint (water based)	litre	1.66	140.00	232.40	
9977	Carriage of paint	L.S.	1.12	2.27	2.54	
	LABOUR					
0131	Painter	day	0.36	816.00	293.76	
0114	Beldar	day	0.36	736.00	264.96	
9999	Sundries	L.S.	24.44	2.27	55.48	
	(including painting brush, wire brush, labour for controlling traffic and other T&P etc.)					
	TOTAL				849.14	W
	Add 1 % Water charges on “W”				8.49	
	TOTAL				857.63	X
	Add GST on “X” (multiplying factor 0.2127)				182.42	
	TOTAL				1040.05	Y
	Add 15% CPOH on “Y”				156.01	
	TOTAL				1196.06	Z
	Add Cess @ 1% on “Z”				11.96	
	Cost for 10 sqm.				1208.02	
	Cost per sqm.				120.80	
	Say				120.80	

16.48 Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.

16.48.1 New work (Two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10sqm.					
	MATERIAL					
7255	Road marking paint (spirit based)	litre	1.48	124.00	183.52	
	(conforming to IS 164 spirit base)					
9977	Carriage of paint (1.48/0.8x0.08x6.9)	L.S.	2.65	2.27	6.02	
	LABOUR					
0128	Mate	day	0.10	816.00	81.60	
0131	Painter	day	0.54	816.00	440.64	
0114	Beldar	day	1.68	736.00	1236.48	
	for stretching of rope & errecting of barricading					
9999	Sundries	L.S.	36.40	2.27	82.63	
	(including painting brush, wire brush, labour for controlling traffic and other T&P etc.)					
	TOTAL				2030.89	W
	Add 1 % Water charges on “W”				20.31	
	TOTAL				2051.20	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				436.29	
	TOTAL				2487.49	Y
	Add 15% CPOH on “Y”				373.12	
	TOTAL				2860.61	Z
	Add Cess @ 1% on “Z”				28.61	
	Cost for 10 sqm.				2889.22	
	Cost per sqm.				288.92	
	Say				288.90	

16.48.2 Old work (One or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10sqm.					
	MATERIAL					
7255	Road marking paint (spirit based) (conforming to IS 164 spirit base)	litre	0.89	124.00	110.36	
9977	Carriage of paint.	L.S.	0.65	2.27	1.48	
	LABOUR					
0128	Mate	day	0.06	816.00	48.96	
0131	Painter	day	0.36	816.00	293.76	
0114	Beldar (stretching of rope & errecting of barricading etc.)	day	1.12	736.00	824.32	
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.)	L.S.	24.44	2.27	55.48	
	TOTAL				1334.36	W
	Add 1 % Water charges on “W”				13.34	
	TOTAL				1347.70	X
	Add GST on “X” (multiplying factor 0.2127)				286.66	
	TOTAL				1634.36	Y
	Add 15% CPOH on “Y”				245.15	
	TOTAL				1879.51	Z
	Add Cess @ 1% on “Z”				18.80	
	Cost for 10 sqm.				1898.31	
	Cost per sqm.				189.83	
	Say				189.85	

16.49 Making bell mouth opening/ entrance of size 100x50x50 cm for drainage pipe under footpath, including providing cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) for shape of bell mouth, including plastering providing and fixing precast R.C.C./ S.F.R.C. slab including plastering with cement mortar 1:3 (1 cement : 3 fine sand) of 6 mm thickness on exposed surface of the slab & bell mouth including centring, shuttering & neat cement punning inside the bell mouth etc. all complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Nos.					
	(i) Earth work in excavation					
	Channel :- 10x1x1.00x0.20x0.15 = 0.30+ Bell mouth :-10x1x1.00x0.50x (0.18+0.075)/2 = 0.64 Total = 0.94					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work) (ii) Cement concrete 1:4:8 Channel :-10x1x1.00x0.20x0.075 = 0.15 cum	cum	0.94	260.30	244.68	A
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work (iii) Cement concrete 1:3:6 Channel 10x1x1.00x0.20x0.075 = 0.15 + Bed of bell mouth : 10x1x1.00x0.50x(0.18+0.075)/2 = 0.64 + Haunches portion 10x2x(0.35+0.075)/2x0.25x 0.375 = 0.40 + Rect part :10x2x0.35x0.25x0.375 = 0.65 + Quadrant portion :10x1[(0.3 0x0.30)-3.142/4(0.30)²]x 0.30 =0.06+ Central middle part :10x1x0.30x0.25x0.075 = 0.05	cum	0.15	6812.00	1021.80	A
4.1.5	(Rate as per item no.4.1.5 S.H. : Cement Concrete) Total = 1.95 cum. (iv) RCC in shelves 10x1x1.00x0.50x0.05 = 0.25cum.	cum	1.95	7294.70	14224.67	A
5.3	Rate as per item no. 5.3 SH : RCC (v) Reinforcement for RCC @100kg/cum. 0.25x100=25kg.	cum	0.25	11505.50	2876.38	A
5.22.1	Rate as per item no. 5.22.1 SH : RCC (vi) Centering and shuttering For shelves (sides) 10x2(1.00+0.50)x0.05 = 1.50+ Front side of bell mouth : 10x2(0.446)x0.375 = 3.34 + Pipe portion: 10x[0.30x0.375-3.142/4(030)²] = 0.04 (x) + Out side of bell mouth 10x(1.00 =0.50)x0.45 = 9.00+ Deduct pipe opening 10x0.785x0.30x0.30 = (-)0.71 Total = 13.17	kg	25.00	107.10	2677.50	A
5.9.1	Rate as per item No.5.9.1 of SH : RC (vii) cement plaster on RCC slab 10x1.00x0.50 = 5.00 + 10x2(1.00+0.50) x0.05 = 1.50+ Total = 6.50 sqm.	sqm	13.17	392.15	5164.62	A
5.23	Rate as per item No.5.23 (viii) Neat cement punning: Qty. same as marked (x) at (9vi) = Total =3.34+0.04 = 3.38 sqm	sqm	6.50	300.45	1952.93	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Channel portion:					
	10x1x(0.85+0.30)/2x0.25 = 1.43 Total = 4.81					
13.18	Rate as per item no.13.18 S.H. Finishing	sqm	4.810	79.95	384.56	A
0367	Portland Cement (OPC-43 grade)	tonne	0.024	5156.00	123.74	
2209	Carriage of Cement	tonne	0.024	0.00	0.00	
0983	Fine Sand (Zone IV)	cum	0.050	980.00	49.00	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand	cum	0.050	0.00	0.00	
	LABOUR					
0114	Beldar	day	0.035	736.00	25.76	
0101	Bhisti	day	0.003	816.00	2.45	
9999	Hire charges of mixer	L.S.	1.270	2.27	2.88	
9999	Sundries	L.S.	1.270	2.27	2.88	
	Labour for plaster					
0155	Mason (average)	day	0.330	857.00	282.81	
0115	Coolie	day	0.488	736.00	359.17	
0101	Bhisti	day	0.600	816.00	489.60	
9999	Extra for removing burr	L.S.	8.710	2.27	19.77	
9999	Scaffolding	L.S.	7.620	2.27	17.30	
	TOTAL				29922.50	w
	Add 1% Water charges on “W-A”				13.75	
	TOTAL				29936.25	X
	Add GST on “X-A” (multiplying factor 0.2127)				295.46	
	TOTAL				30231.71	Y
	Add 15% CPOH on “Y-A”				252.69	
	TOTAL				30484.40	Z
	Add Cess @1% on “Z-A’				19.37	
	Cost of each				30503.77	
	Cost for 1 no.				3050.38	
	Say				3050.40	

16.50 Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degress to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 15 Nos.					
	MATERIAL					
7426	Cat’s eye	each	15.00	87.00	1305.00	
9977	Carriage of cats eyes	L.S.	2.60	2.27	5.90	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	39.00	2.27	88.53	
	(including material required for fixing cats eyes and providing barricading to divert traffic)					
	TOTAL				2175.43	W
	Add 1 % Water charges on “W”				21.75	
	TOTAL				2197.18	X
	Add GST on “X” (multiplying factor 0.2127)				467.34	
	TOTAL				2664.52	Y
	Add 15% CPOH on “Y”				399.68	
	TOTAL				3064.20	Z
	Add Cess @ 1% on “Z”				30.64	
	Cost for 15 Nos.				3094.84	
	Cost for one cat’s eye.				206.32	
	Say				206.30	

16.51 Preparation of sub-base road pavement with commercial dry lime (slaked), fly ash stabilised soil with a mix of 3% lime, 12% fly ash and 85% local suitable soil by weight, so as to achieve minimum field C.B.R. of 20, including mixing, rolling with road roller curing etc. all complete.

16.51.1 Minimum thickness 15 cm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 66.7 sqm. or 10 cum.					
	MATERIAL					
0777	Dry hydrated lime (factory made)	quintal	4.100	315.00	1291.50	
2208	Carriage of Lime	cum	0.680	0.00	0.00	
1980	Flyash	cum	2.770	12.00	33.24	
2267	Carriage of Stone dust	cum	2.770	0.00	0.00	
	LABOUR					
	(i) For earth work :					
0114	Beldar	day	1.160	736.00	853.76	
0115	Coolie	day	1.160	736.00	853.76	
0979	Royalty for good earth	cum	6.550	60.00	393.00	
2241	Carriage of Good earth	cum	6.550	231.93	1519.14	
	(ii) For mixing :					
0114	Beldar	day	0.250	736.00	184.00	
0115	Coolie	day	0.250	736.00	184.00	
	(iii) For rolling layers :					
0113	Chowkidar	day	0.008	736.00	5.89	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.008	3350.00	26.80	
9999	Sundries	L.S.	1.800	2.27	4.09	
	(iv) Labour for spreading and watering :					
0114	Beldar	day	2.600	736.00	1913.60	
0115	Coolie	day	2.600	736.00	1913.60	
0101	Bhisti	day	1.800	816.00	1468.80	
	TOTAL				10645.18	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				106.45	
	TOTAL				10751.63	X
	Add GST on "X" (multiplying factor 0.2127)				2286.87	
	TOTAL				13038.50	Y
	Add 15% CPOH on "Y"				1955.78	
	TOTAL				14994.28	Z
	Add Cess @ 1% on "Z"				149.94	
	Cost for 10 cum.				15144.22	
	Cost for 1 cum.				1514.42	
	Say				1514.40	

16.52 Providing and fixing precast lime fly ash concrete blocks 1:2:3:6 (1 lime: 2 fly ash: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including finishing with 10mm thick cement mortar 1:3 (1 cement : 3 coarse sand) in foot paths, including preparation of sub grade with a hand rammer, laying 10 mm thick leveling course of fine sand (jamuna sand) and filling the joints with fine sand.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for a path of area 100sqm/9cum. No. of blocks required for 100sqm. = 1080 nos. (a) Concrete in blocks (1080x0.30x0.30x0.09 = 8.75 cum.)					
16.52Y	Rate as per sub analysis Item Number 16.52Y of SH:Road Work	cum	8.750	3744.60	32765.25	
	(b) Labour for surface excavation :					
0114	Beldar	day	7.200	736.00	5299.20	
0115	Coolie	day	6.000	736.00	4416.00	
	(c) For levelling course of fine sand					
6501	Sand zone V (Jamuna)	cum	1.000	1320.00	1320.00	
2335	Carriage of Jamuna sand	cum	1.000	0.00	0.00	
	LABOUR					
0114	Beldar	day	0.089	736.00	65.50	
0115	Coolie	day	0.107	736.00	78.75	
0101	Bhisti	day	0.035	816.00	28.56	
	(d) For finishing with 10mm thick cement plaster cement plaster with cement mortar 1:3(1 Cement: 3 Coarse sand) qty. for 97.2sqm. = 0.972 cum					
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.972	4881.95	4745.26	
0155	Mason (average)	day	7.870	857.00	6744.59	
0115	Coolie	day	7.870	736.00	5792.32	
0101	Bhisti	day	2.620	816.00	2137.92	
9999	Scaffolding and sundries	L.S.	122.200	2.27	277.39	
	(e) For laying blocks and filling joints with Jamuna sand for filling joints 5mm (av.) thick					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
6501	Sand zone V (Jamuna)	cum	0.050	1320.00	66.00	
2335	Carriage of Jamuna sand	cum	0.050	0.00	0.00	
0123	Mason 1st class	day	9.000	897.00	8073.00	
0115	Coolie	day	19.800	736.00	14572.80	
0101	Bhisti	day	0.500	816.00	408.00	
	TOTAL				86790.54	W
	Add 1 % Water charges on “W”				867.91	
	TOTAL				87658.45	X
	Add GST on “X” (multiplying factor 0.2127)				18644.95	
	TOTAL				106303.40	Y
	Add 15% CPOH on “Y”				15945.51	
	TOTAL				122248.91	Z
	Add Cess @ 1% on “Z”				1222.49	
	Cost for 9 cum.				123471.40	
	Rate per cum.				13719.04	
	Say				13719.05	

16.52X Sub Analysis X for sub analysis item Number 16.52Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Sub Analysis 16.52X for use in sub analysis of 16.52Y Details of cost for 1cum of lime Flyash mortar 1:2:3 (lime:2 flyash:3 coarse sand).					
	MATERIAL					
0773	Unslaked lime	quintal	1.52	325.00	494.00	
1980	Flyash	cum	0.48	12.00	5.76	
0982	Coarse sand (zone III)	cum	0.72	1450.00	1044.00	
2208	Carriage of Lime	cum	0.24	0.00	0.00	
2266	Carriage of Surkhi	cum	0.48	0.00	0.00	
2203	Carriage of Coarse sand	cum	0.72	0.00	0.00	
	LABOUR					
	Labour for slaking the lime making, lime putty, grinding, measuring, carrying, depositing and mixing.					
0114	Beldar	day	0.90	736.00	662.40	
0101	Bhisti	day	0.45	816.00	367.20	
9999	Running and upkeep of mortar mill	L.S.	26.91	2.27	61.09	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				2665.14	
	Cost of 1.00 cum				2665.14	
	Say				2665.15	

16.52Y Sub Analysis Y for Item Number 16.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Sub Analysis ‘Y’ (16.52Y) for use in Item No. 16.52 Details of cost for 1 cum. of cement concrete					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Lime Flyash mortar					
16.52X	Rate as per sub analysis of Item No 16.52X	cum	0.40	2665.15	1066.06	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.64	1425.00	912.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.21	1400.00	294.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	0.00	0.00	
	LABOUR					
0114	Beldar	day	0.65	736.00	478.40	
0115	Coolie	day	0.60	736.00	441.60	
0101	Bhisti	day	0.27	816.00	220.32	
0123	Mason 1st class	day	0.05	897.00	44.85	
0124	Mason 2nd class	day	0.05	816.00	40.80	
0128	Mate	day	0.04	816.00	32.64	
9999	Hire and running charges of mixer	L.S.	26.91	2.27	61.09	
9999	Sundries	L.S.	13.52	2.27	30.69	
9999	Hire charges of steel moulds, table vibrators, rammers, bolts, nuts and washers etc.	L.S.	53.82	2.27	122.17	
	TOTAL				3744.62	
	Cost of 1.00 cum				3744.62	
	Say				3744.60	

16.53 Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30.00 m length					
	MATERIAL					
8691	Punched tape concertina coil 600 mm dia 10 m openable length (Total length 90 m)	bundle	5.00	720.00	3600.00	
	(Having 50 Nos. of rounds per 6 meter = 1 bundles) Therefore, Nos. of bundles 30/10=3bundles)					
8692	RBT reinforced barbed wire	metre	270.00	8.00	2160.00	
	9 rounds = 9x30 = 270m					
8693	Turn buckle and strengthening bolt	each set	10.00	46.00	460.00	
9999	G.I. staples clips etc.	L.S.	49.40	2.27	112.14	
	LABOUR					
	Labour for fixing straightening cutting of tape/ coils & wire					
0114	Beldar	day	1.00	736.00	736.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	0.50x2 = 1.00 Nos (Taken double due to height)					
0102	Blacksmith 1st class	day	0.50	897.00	448.50	
0103	Blacksmith 2nd class	day	0.50	816.00	408.00	
	TOTAL				7924.64	W
	Add 1 % Water charges on “W”				79.25	
	TOTAL				8003.89	X
	Add GST on “X” (multiplying factor 0.2127)				1702.43	
	TOTAL				9706.32	Y
	Add 15% CPOH on “Y”				1455.95	
	TOTAL				11162.27	Z
	Add Cess @ 1% on “Z”				111.62	
	cost for 30.00 metre				11273.89	
	cost per metre				375.80	
	Say				375.80	

16.54 Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.

16.54.1 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 195 cum (or 450 M.T.)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality (percentage by weight of total mix)	tonne	22.50	41202.00	927045.00	
2211	Carriage of Tar bitumen	tonne	22.50	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 22.50 tonnes					
	Weight of aggregate = 450 -22.50 = 427.50 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =427.50/1.5 =285cum					
	Grading - II/19 mm (Nominal Size)					
	25 - 10mm size = 30% of 285 = 85.5 cum					
	10 - 5mm size = 28% of 285 = 79.8 cum					
	5mm and below = 40% of 285 = 114 cum					
0294	Stone Aggregate (Single size) : 25 mm nominal size Qty = 85.5 * 50 /100	cum	42.75	1400.00	59850.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 50 /100	cum	42.75	1400.00	59850.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 79.8 * 50 /100	cum	39.90	1400.00	55860.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 79.8 * 50 /100	cum	39.90	1425.00	56857.50	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 285 * 40 /100	cum	114.00	1600.00	182400.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	279.30	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	85.50	315.00	26932.50	
2208	Carriage of Lime	cum	6.63	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum					
	MACHINERY/ HIRE CHARGES:					
0062	Hot mix Plant -120 TPH capacity	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	14550.00	43650.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne/km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				0.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1525524.44	W
	Add 1 % Water charges on “W”				15255.24	
	TOTAL				1540779.68	X
	Add GST on “X” (multiplying factor 0.2127)				327723.84	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1868503.52	Y
	Add 15% CPOH on "Y"				280275.53	
	TOTAL				2148779.05	Z
	Add Cess @ 1% on "Z"				21487.79	
	Cost for 195 cum(450 M.T.)				2170266.84	
	Cost per cum.				11129.57	
	Say				11129.55	

16.54.2 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 195 cum (or 450 M.T.)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality (percentage by weight of total mix)	tonne	22.50	41202.00	927045.00	
2211	Carriage of Tar bitumen	tonne	22.50	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 22.50 tonnes					
	Weight of aggregate = 450 -22.50 = 427.50 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =427.50/1.5 =285cum					
	Grading - II/19 mm (Nominal Size)					
	25 - 10mm size = 30% of 285 = 85.5 cum					
	10 - 5mm size = 28% of 285 = 79.8 cum					
	5mm and below = 40% of 285 = 114 cum					
0294	Stone Aggregate (Single size) : 25 mm nominal size Qty = 85.5 * 50 /100	cum	42.75	1400.00	59850.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 50 /100	cum	42.75	1400.00	59850.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 79.8 * 50 /100	cum	39.90	1400.00	55860.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 79.8 * 50 /100	cum	39.90	1425.00	56857.50	
2903	Stone chippings/ screenings 4.75 mmnominal size Qty = 285 * 40 /100	cum	114.00	1600.00	182400.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	279.30	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	85.50	315.00	26932.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	0.00	0.00	
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne/km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				0.00	
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	350.00	1365.00	
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	700.00	2730.00	
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1350.00	5265.00	
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistancefor setting out lines, levels and layout of construction	day	14.00	736.00	10304.00	
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	816.00	4080.00	
	TOTAL				1512174.44	W
	Add 1 % Water charges on “W”				15121.74	
	TOTAL				1527296.18	X
	Add GST on “X” (multiplying factor 0.2127)				324855.90	
	TOTAL				1852152.08	Y
	Add 15% CPOH on “Y”				277822.81	
	TOTAL				2129974.89	Z
	Add Cess @ 1% on “Z”				21299.75	
	Cost for 195 cum(450 M.T.)				2151274.64	
	Cost per cum.				11032.18	
	Say				11032.20	

16.55 Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.

16.55.1 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 205 cum (or 450 M.T.)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality 3.5% of 450 MT = 15.75 MT	tonne	15.75	41202.00	648931.50	
2211	Carriage of Tar bitumen Weight of mix = 205 * 2.5 = 450 tonnes Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 15.75 tonnes Weight of aggregate = 450 -15.75 = 434.25 tonnes Taking density of aggregate = 1.5 tonne/ cum Volume of aggregate =434.25/1.5 =289.50cum Grading - II/19 mm (Nominal Size) 25 - 10mm size = 40% of 289.50 = 115.8 cum 10 - 5mm size = 40% of 289.50 = 115.8 cum 5mm and below = 20% of 289.50 = 57.9 cum	tonne	15.75	0.00	0.00	
0294	Stone Aggregate (Single size) : 25 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1425.00	82507.50	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 289.50 * 20 /100	cum	57.90	1600.00	92640.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	289.50	0.00	0.00	
	MACHINERY					
0062	Hot mix Plant -120 TPH capacity @75tonne per hour actual output	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	14550.00	43650.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	@75tonne per hour actual output					
0064	Paver finisher Hydrostatic with sensor control 100 TPH @75tonne per hour actual output	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km					
0053	Tipper -5 Cum	tonne/km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading X * 10 / 100 = 13500.00 * 10 / 100				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1225653.44	W
	Add 1 % Water charges on “W”				12256.53	
	TOTAL				1237909.97	X
	Add GST on “X” (multiplying factor 0.2127)				263303.45	
	TOTAL				1501213.42	Y
	Add 15% CPOH on “Y”				225182.01	
	TOTAL				1726395.43	Z
	Add Cess @ 1% on “Z”				17263.95	
	Cost for 205 cum(450 M.T.)				1743659.38	
	Cost per cum.				8505.66	
	Say				8505.65	

16.55.2 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 205 cum (or 450 M.T.)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality 3.5% of 450 MT = 15.75 MT	tonne	15.75	41202.00	648931.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2211	Carriage of Tar bitumen Weight of mix = 205 * 2.5 = 450 tonnes Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 15.75 tonnes Weight of aggregate = 450 -15.75 = 434.25 tonnes Taking density of aggregate = 1.5 tonne/ cum Volume of aggregate =434.25/1.5 =289.50cum Grading - II/19 mm (Nominal Size) 25 - 10mm size = 40% of 289.50 = 115.8 cum 10 - 5mm size = 40% of 289.50 = 115.8 cum 5mm and below = 20% of 289.50 = 57.9 cum	tonne	15.75	0.00	0.00	
0294	Stone Aggregate (Single size) : 25 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1425.00	82507.50	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 289.50 * 20 /100	cum	57.90	1600.00	92640.00	
2202	Carriage of Stone aggregate below 40 mm nominal size MACHINERY	cum	289.50	0.00	0.00	
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output @75tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH @75tonne per hour actual output	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
0053	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1212303.44	W
	Add 1 % Water charges on “W”				12123.03	
	TOTAL				1224426.47	X
	Add GST on “X” (multiplying factor 0.2127)				260435.51	
	TOTAL				1484861.98	Y
	Add 15% CPOH on “Y”				222729.30	
	TOTAL				1707591.28	Z
	Add Cess @ 1% on “Z”				17075.91	
	Cost for 205 cum(450 M.T.)				1724667.19	
	Cost per cum.				8413.01	
	Say				8413.00	

16.56 **Providing and laying semi- dense Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.**

16.56.1 **25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 195 cum (450 tonnes)					
	Area covered for 25 mm thickness=7800 sqm					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality	tonne	22.50	41202.00	927045.00	
	5% of 450 MT = 22.50 MT					
2211	Carriage of Tar bitumen	tonne	22.50	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 22.50 tonnes					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Weight of aggregate = 450 -22.50 = 427.50 tonnes Taking density of aggregate = 1.5 tonne/ cum Volume of aggregate =427.50/1.5 =285cum Grading - II/19 mm (Nominal Size) 9.5 - 4.75 mm size = 57% of 285 = 162.45 cum 4.75mm and below = 41% of 285 = 116.85 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1400.00	113715.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1400.00	113715.00	
2903	Stone chippings/ screenings 4.75 mm nominal size nominal size Qty = 285 * 41 /100	cum	116.85	1600.00	186960.00	
2202	Carriage of Stone aggregate below 40 mm nominal size nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	279.30	0.00	0.00	
0777	Dry hydrated lime (factory made)	quintal	85.50	315.00	26932.50	
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	0.00	0.00	
	MACHINERY/ HIRE CHARGES:					
0062	Hot mix Plant -120 TPH capacity @75tonne per hour actual output	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity @75tonne per hour actual output	hour	3.00	14550.00	43650.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH @75tonne per hour actual output	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	350.00	1365.00	
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	700.00	2730.00	
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction for checking line & levels					
	TOTAL				1522681.94	W
	Add 1 % Water charges on “W”				15226.82	
	TOTAL				1537908.76	X
	Add GST on “X” (multiplying factor 0.2127)				327113.19	
	TOTAL				1865021.95	Y
	Add 15% CPOH on “Y”				279753.29	
	TOTAL				2144775.24	Z
	Add Cess @ 1% on “Z”				21447.75	
	Cost for 7800 Sqm				2166222.99	
	Cost per sqm				277.72	
	Say				277.70	

16.56.2 25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 195 cum (450 tonnes)					
	Area covered for 25 mm thickness=7800 sqm					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality	tonne	22.50	41202.00	927045.00	
	5% of 450 MT = 22.50 MT					
2211	Carriage of Tar bitumen	tonne	22.50	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 22.50 tonnes					
	Weight of aggregate = 450 -22.50 =					
	427.50 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =427.50/1.5 =285cum					
	Grading - II/19 mm (Nominal Size)					
	9.5 - 4.75 mm size = 57% of 285 = 162.45 cum					
	4.75mm and below = 41% of 285 = 116.85 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	81.225	1400.00	113715.00	
	Qty = 162.45 * 50 /100					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1400.00	113715.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 285 * 41 /100	cum	116.85	1600.00	186960.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	279.30	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	85.5	315.00	26932.50	
2208	Carriage of Lime	cum	6.63	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum					
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction for checking line & levels					
	TOTAL				1509331.94	W
	Add 1 % Water charges on “W”				15093.32	
	TOTAL				1524425.26	X
	Add GST on “X” (multiplying factor 0.2127)				324245.25	
	TOTAL				1848670.51	Y
	Add 15% CPOH on “Y”				277300.58	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2125971.09	Z
	Add Cess @ 1% on "Z"				21259.71	
	Cost for 7800 Sqm				2147230.80	
	Cost per sqm				275.29	
	Say				275.30	

16.57 Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.

16.57.1 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	41202.00	1019749.50	
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 = 425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =425.25/1.5 =283.50cum					
	Grading - II/19 mm (Nominal Size)					
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum					
	10 - 5mm size = 25% of 283.50 = 70.88 cum					
	5mm and below = 42% of 283.50 = 119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime	cum	9.89	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum					
	MACHINERY/ HIRE CHARGES:					
0062	Hot mix Plant -120 TPH capacity	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	14550.00	43650.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km					
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1628037.94	W
	Add 1 % Water charges on “W”				16280.38	
	TOTAL				1644318.32	X
	Add GST on “X” (multiplying factor 0.2127)				349746.51	
	TOTAL				1994064.83	Y
	Add 15% CPOH on “Y”				299109.72	
	TOTAL				2293174.55	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				22931.75	
	Cost for 191 cum(450 Tonne)				2316106.30	
	Cost per cum.				12126.21	
	Say				12126.20	

16.57.2 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in Batch Type Hot Mix Plant of 100- 120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	41202.00	1019749.50	
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/ cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 =119.07 cum Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%					
7280	Waste plastic additive	tonne	1.98	39500.00	78210.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime	cum	9.89	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum					
	MACHINERY/ HIRE CHARGES:					
0062	Hot mix Plant -120 TPH capacity	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	14550.00	43650.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1706247.94	W
	Add 1 % Water charges on “W”				17062.48	
	TOTAL				1723310.42	X
	Add GST on “X” (multiplying factor 0.2127)				366548.13	
	TOTAL				2089858.55	Y
	Add 15% CPOH on “Y”				313478.78	
	TOTAL				2403337.33	Z
	Add Cess @ 1% on “Z”				24033.37	
	Cost for 191 cum(450 Tonne)				2427370.70	
	Cost per cum.				12708.75	
	Say				12708.75	

16.57.3 40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
0312	Bitumen grade PMB - 40	M.T.	24.75	36200.00	895950.00	
	@5.50% (percentage by weight of total mix					
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 =					
	425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =425.25/1.5 =283.50cum					
	Grading - II/19 mm (Nominal Size)					
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum					
	10 - 5mm size = 25% of 283.50 = 70.88 cum					
	5mm and below = 42% of 283.50 = 119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime	cum	9.89	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum					
	MACHINERY/ HIRE CHARGES:					
0062	Hot mix Plant -120 TPH capacity	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	14550.00	43650.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1504238.44	W
	Add 1 % Water charges on “W”				15042.38	
	TOTAL				1519280.82	X
	Add GST on “X” (multiplying factor 0.2127)				323151.03	
	TOTAL				1842431.85	Y
	Add 15% CPOH on “Y”				276364.78	
	TOTAL				2118796.63	Z
	Add Cess @ 1% on “Z”				21187.97	
	Cost for 191 cum(450 Tonne)				2139984.60	
	Cost per cum.				11204.11	
	Say				11204.10	

16.57.4 40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
7741	Modified Bitumen Refinary produced CRMB - 60 @5.50% (percentage by weight of total mix	tonne	24.75	33250.00	822937.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 =					
	425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =425.25/1.5=283.50cum					
	Grading - II/19 mm (Nominal Size)					
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum					
	10 - 5mm size = 25% of 283.50 = 70.88 cum					
	5mm and below = 42% of 283.50 = 119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime	cum	9.89	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum					
	MACHINERY/ HIRE CHARGES:					
0062	Hot mix Plant -120 TPH capacity	hour	3.00	16800.00	50400.00	
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	14550.00	43650.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1431225.94	W
	Add 1 % Water charges on “W”				14312.26	
	TOTAL				1445538.20	X
	Add GST on “X” (multiplying factor 0.2127)				307465.98	
	TOTAL				1753004.18	Y
	Add 15% CPOH on “Y”				262950.63	
	TOTAL				2015954.81	Z
	Add Cess @ 1% on “Z”				20159.55	
	Cost for 191 cum(450 Tonne)				2036114.36	
	Cost per cum.				10660.28	
	Say				10660.30	

16.57.5 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality	tonne	24.75	41202.00	1019749.50	
	@5.50% (percentage by weight of total mix					
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 = 425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	0.00	0.00	
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	350.00	1365.00	
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	700.00	2730.00	
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1614687.94	W
	Add 1 % Water charges on “W”				16146.88	
	TOTAL				1630834.82	X
	Add GST on “X” (multiplying factor 0.2127)				346878.57	
	TOTAL				1977713.39	Y
	Add 15% CPOH on “Y”				296657.01	
	TOTAL				2274370.40	Z
	Add Cess @ 1% on “Z”				22743.70	
	Cost for 191 cum(450 Tonne)				2297114.10	
	Cost per cum.				12026.78	
	Say				12026.80	

16.57.6 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	41202.00	1019749.50	
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%					
7280	Waste plastic additive	tonne	1.98	39500.00	78210.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 =					
	425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =425.25/1.5=283.50cum					
	Grading - II/19 mm (Nominal Size)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime	cum	9.89	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum					
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity					
	@ 75 tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor					
	control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	
	for checking line & levels					
	TOTAL				1692897.94	W
	Add 1 % Water charges on “W”				16928.98	
	TOTAL				1709826.92	X
	Add GST on “X” (multiplying factor 0.2127)				363680.19	
	TOTAL				2073507.11	Y
	Add 15% CPOH on “Y”				311026.07	
	TOTAL				2384533.18	Z
	Add Cess @ 1% on “Z”				23845.33	
	Cost for 191 cum(450 Tonne)				2408378.51	
	Cost per cum.				12609.31	
	Say				12609.30	

16.57.7 40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
0312	Bitumen grade PMB - 40	M.T.	24.75	36200.00	895950.00	
	@5.50% (percentage by weight of total mix					
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 = 425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =425.25/1.5 =283.50cum					
	Grading - II/19 mm (Nominal Size)					
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum					
	10 - 5mm size = 25% of 283.50 = 70.88 cum					
	5mm and below = 42% of 283.50 = 119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	42.525	1400.00	59535.00	
	Qty = 85.05 * 50 /100					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1425.00	50502.00	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	0.00	0.00	
	Lime Filler @ 2% (percentage by weight of aggregate)					
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime	cum	9.89	0.00	0.00	
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum					
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity @					
	75 tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor					
	control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity					
	(incl POL)	hour	6.00	1450.00	8700.00	
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	350.00	1365.00	
	for initial break down rolling.(6*0.65)					
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	for intermediate rolling.(6*0.65)					
0056	Tandem Road Roller	hour	3.90	1350.00	5265.00	
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)					
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar	day	14.00	736.00	10304.00	
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction					
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	816.00	4080.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	for checking line & levels					
	TOTAL				1490888.44	W
	Add 1 % Water charges on “W”				14908.88	
	TOTAL				1505797.32	X
	Add GST on “X” (multiplying factor 0.2127)				320283.09	
	TOTAL				1826080.41	Y
	Add 15% CPOH on “Y”				273912.06	
	TOTAL				2099992.47	Z
	Add Cess @ 1% on “Z”				20999.92	
	Cost for 191 cum(450 Tonne)				2120992.39	
	Cost per cum.				11104.67	
	Say				11104.65	

16.57.8 40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 191 cum (450 tonnes)					
	MATERIAL					
7741	Modified Bitumen Refinary produced CRMB - 60 @5.50% (percentage by weight of total mix	tonne	24.75	33250.00	822937.50	
2211	Carriage of Tar bitumen	tonne	24.75	0.00	0.00	
	Aggregate					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 24.75 tonnes					
	Weight of aggregate = 450 -24.75 = 425.25 tonnes					
	Taking density of aggregate = 1.5 tonne/ cum					
	Volume of aggregate =425.25/1.5 = 283.50cum					
	Grading - II/19 mm (Nominal Size)					
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum					
	10 - 5mm size = 25% of 283.50 = 70.88 cum					
	5mm and below = 42% of 283.50 =119.07 cum					
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1400.00	59535.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00	
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	35.44	1425.00	50502.00	
	Qty = 70.88 * 50 /100					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1600.00	190512.00	
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	0.00	0.00	
0777	Dry hydrated lime (factory made)	quintal	127.60	315.00	40194.00	
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	0.00	0.00	
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	13450.00	80700.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1700.00	10200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	350.00	1365.00	
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	700.00	2730.00	
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1350.00	5265.00	
	LABOUR					
0128	Mate	day	0.84	816.00	685.44	
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	736.00	10304.00	
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	816.00	4080.00	
	TOTAL				1417875.94	W
	Add 1 % Water charges on “W”				14178.76	
	TOTAL				1432054.70	X
	Add GST on “X” (multiplying factor 0.2127)				304598.03	
	TOTAL				1736652.73	Y
	Add 15% CPOH on “Y”				260497.91	
	TOTAL				1997150.64	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				19971.51	
	Cost for 191 cum(450 Tonne)				2017122.15	
	Cost per cum.				10560.85	
	Say				10560.85	

16.59 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours).Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-charge.

16.59.1 Mandatory/ Regulatory sign boards of 900 mm diametre with support length of 3750 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details cost for 1 board of 0.35 sqm					
	MATERIAL					
	Aluminium sheet 2 mm thick					
	3.14/4x(0.9)x(0.9)=0.636 sqm add 10% wastage = 0.064 i.e. 0.700sqm @ 5.60kg/ sqm = 3.92kg					
2704	Aluminium Strip 40 mm wide and 2 mm thick	kg	3.92	243.00	952.56	
2302	Carriage of G.I. sheet and accessories 3.92kg or 0.004 MT	tonne	0.004	0.00	0.00	
	High intensity retro reflective sheet = 0.70 sqm. High intensity sheet for lettering / sign and border etc. Taking 40% Area =0.28sqm,total = 0.70 + 0.28 = 0.98 sqm					
8690	High intensity retro - reflective sheet	sqm	0.98	1345.00	1318.10	
	Steel work					
	Supporting frame 25x25x3mm for 900mm dia board 3.14D=3.1416x0.90=2.83 metre @ 1.10kg/m					
	Angle iron 35x35x.5mm for fixing the support frame with vertical Tee-iron support post 2x0.05=0.10m @ 2.6 kg/m = 0.26kg					
	Vertical post of M.S. tee of section ISNT 50x50x6mm = 3.75 metre @ 4.50kg/m = 16.88 kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Bass plate to be welded at bottom end of tee (As hold fast) (100x100x5mm)x7850/133)= 0.39kg, total = 3.11 + 0.26 +16.88 + 0.39 = Add wastage @ 5% = 1.03 Total = 20.64 + 1.03 = 21.67kg.					
10.2	Rate as per item no 10.2 of SH : Steel work	kg	21.67	133.70	2897.28	A
	LABOUR					
128	Mate	day	0.01	816.00	8.16	
114	Beldar	day	0.25	736.00	184.00	
9999	Cost of material for drilling holes, nut bolts & rivets, fabrication etc	L.S.	65.00	2.27	147.55	
	Painting with synthetic enamel paint on steel work support frame 25x25x3mm =2.83x0.10=0.283 sqm Fixing angle 35x35x5mm = 2x0.50x0.14=0.014 sqm Vertical post Tee 50x50x6mm =3.75x0.20=0.750sqm Base plate 100x100x5mm Surface area = 2x[0.10x0.10] =0.02 4x0.10x0.005 = 0.002 Total = 1.069 sqm					
13.61.1	Rate as per item no 13.61.1 of SH : Finishing Painting with epoxy paint on back side of aluminium sheet.	sqm	1.07	155.90	166.81	A
13.52.1	Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.636	241.75	153.75	A
9999	Sundries & hold fast etc.	L.S.	78.00	2.27	177.06	
	TOTAL				6005.27	
	Add 1% Water charges on “W-A”				27.87	
	TOTAL				6033.14	X
	Add GST on “X-A” (multiplying factor 0.2127)				598.81	
	TOTAL				6631.95	Y
	Add 15% CPOH on “Y-A”				512.12	
	TOTAL				7144.07	Z
	Add Cess @1% on “Z-A’				39.26	
	Cost of 1 No.				7183.33	
	Cost for 1 No				7183.33	
	Say				7183.35	

16.59.2 Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details cost for 1 board of 0.35 sqm					
	MATERIAL					
	Aluminium sheet 2 mm thick					
	Area 1/2x(0.9)x(0.78)=0.35 sqm add 10% wastage = 0.04 i.e. 0.39sqm @ 5.60kg/ sqm = 2.18kg					
2704	Aluminium Strip 40 mm wide and 2 mm thick	kg	2.18	243.00	529.74	
2302	Carriage of G.I. sheet and accessories 2.18kg or 0.002 MT	tonne	0.002	0.00	0.00	
	High intensity retro reflective sheet = 0.39 sqm. High intensity sheet for lettering / sign/ symbol/ border etc. Taking 40% Area =0.16sqm, total = 0.39 + 0.16 = 0.55 sqm					
8690	High intensity retro - reflective sheet	xqm	0.55	1345.00	739.75	
	Steel work					
	Angle iron frame 25x25x3mm 3x0.90= 2.70 metre @ 1.10kg/m					
	Angle iron 35x35x.5mm for fixing the support frame to Tee- iron support post 2x0.05=0.10m @ 2.6 kg/m = 0.26kg Vertical post of M.S. tee of section ISNT 50x50x6mm = 1x3.65=3.65m @ 4.50kg/m =16.43kg Bass plate 100x100x5mm connected to bottom end of vertocal tee.					
	(0.10x0.10x0.005x7850kg =0.39kg, total = 2.97+ 0.26 + 16.43 + 0.39 = 20.05kg. Add wastage @ 5% = 1.00, total = 20.05 + 1.00 = 21.05kg					
10.2	Rate as per item no 10.2 of SH : Steel work	kg	21.05	133.70	2814.39	A
	LABOUR					
128	Mate	day	0.01	816.00	8.16	
114	Beldar	day	0.25	736.00	184	
9999	Cost of material for drilling holes, nut bolts & rivets, fabrication etc	L.S.	65.00	2.27	147.55	
	Painting with synthetic enamel paint on Angle iron support frame 25x25x3mm =1x2.7x0.10=0.27 sqm Angle 35x35x5mm = 2x0.50x0.14=0.014 sqm Tee 50x50x6mm =1x3.65x0.20 =0.73sqm					
	Base plate to be welded at bottom end of Tee 100x100x5mm 0.022 sqm Total = 1.036 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
13.61.1	Rate as per item no 13.61.1 of SH : Finishing Painting with epoxy paint on back side of aluminium sheet. 0.35 sqm	sqm	1.036	155.90	161.51	A
13.52.1	Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.35	241.75	84.61	A
9999	Sundries & hold fast etc.	L.S.	65.00	2.27	147.55	
	TOTAL				4817.26	W
	Add 1% Water charges on “W-A”				17.57	
	TOTAL				4834.83	X
	Add GST on “X-A” (multiplying factor 0.2127)				377.40	
	TOTAL				5212.23	Y
	Add 15% CPOH on “Y-A”				322.76	
	TOTAL				5534.99	Z
	Add Cess @1% on “Z-A’				24.74	
	Cost of 1 board				5559.73	
	Cost for 1 No.				5559.73	
	Say				5559.75	

16.60 **Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment).**

16.60.1 **Overhead informatory road signage**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for boards area 3.00x1.20 =3.60 sqm MATERIAL					
2704	Aluminium Strip 40 mm wide and 2 mm thick Add 5% wastage = 1.01 kg Total = 20.16 + 1.01 = 21.17 kg.	kilogram	21.17	243.00	5144.31	
2302	Carriage of G.I. sheet and accessories high intensity sheet for written matter. Taking 40% 3.60x40% = 1.44 sqm. Total = 3.60 + 1.44 = 5.04 sqm.	tonne	0.021	0.00	0.00	
8690	High intensity retro - reflective sheet	sqm	5.04	1345.00	6778.80	
0588	Chromium plated Brass screws 25 mm	100 Nos	0.34	177.00	60.18	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	for peripheries = 2x(300+120)/30=28 nos.					
	For vertical Rows = 2x (120/30-2)=4 nos.					
	Total= 28 + 4 = 32nos.					
	For wastage @ 5% =2 nos.					
	Total = 32 +2 = 34 nos.					
	Labour charges for drilling holes					
9999	Hire charges of drill machine and sundries	L.S.	52.00	2.27	118.04	
9999	Hoisting board	L.S.	390.00	2.27	885.30	
9999	Labour charges for manufacturing of board including . fixing retro reflective sheet	L.S.	564.20	2.27	1280.73	
	Painting with epoxy paint on back side of Aluminium sheet,					
13.52.1	Rate as per Item no. 13.52.1 of SH: Finishing	sqm	3.60	241.75	870.30	A
	TOTAL				15137.66	W
	Add 1 % Water charges on “W-A”				142.67	
	TOTAL				15280.33	X
	Add GST on “X-A” (multiplying factor 0.2127)				3065.01	
	TOTAL				18345.34	Y
	Add 15% CPOH on “Y-A”				2621.26	
	TOTAL				20966.60	Z
	Add Cess @ 1% on “Z-A”				200.96	
	Cost of 3.60 sqm				21167.56	
	Cost of 1 sqm.				5879.88	
	Say				5879.90	

16.61 **Providing Retro-reflective regulatory sign board of size 900 mm dia metre made out of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated lens type retro -reflective sheeting as approved by Engineer-in-charge . Letter, symbols, borders etc. will be as per IRC - 67 with required colour scheme on the boards and with the high intensity grade A. The aluminium sheet to be riveted to M.S. frame of angle iron of size 40x40x4 mm. The boards will be fixed to 1 No. 50x50 mm square post made of M.S. angle 50x50x4 mm, 4 m long welded to the frame with adequate anti-theft arrangement .Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminium sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per direction of Engineer-in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details cost for one board of 0.635 sqm					
	Aluminium sheet 2mm thick = 0.635 sqm. Add 10% wastage = 0.06 sqm, total = 0.635 + 0.06 = 0.695 sqm. Say 0.70 sqm @ 5.6kg/sqm = 3.98 kg					
	MATERIAL					
2704	Aluminium Strip 40 mm wide and 2 mm thick high intensity sheet for lettering/ sing and border etc Taking 40% Area=0.28 sqm, total = 0.70 + 0.28 = 0.98 sqm.	kg	3.98	243.00	967.14	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8690	High intensity retro - reflective sheet Angle iron 40x40x4mm = 4x0.60=2.40@ 2.4kg/ mtr = 5.76 kg 50x50x5 mm = 2x4m =8m @ 3kg/ mtr =24.00 kg Total = 5.76 + 24.00 = 29.76 kg	sqm	0.98	1345.00	1318.1	
10.2	Rate as per item no 10.2 of SH : Steel work LABOUR	kg	29.76	133.70	3978.91	A
0128	Mate	day	0.01	816.00	8.16	
0114	Beldar	day	0.25	736.00	184	
9999	Cost of material for drilling holes, nut bolts & rivets, facrication etc. (e) Painting with synthetic enamel paint 1x2.40.12=0.29 sqm 1x4.00x0.12=0.80 sqm, Total = 0.29 + 0.80 = 1.09 sqm	L.S.	70.23	2.27	159.42	
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.09	155.90	169.93	A
13.52.1	Painting with epoxy paint on back side of aluminium sheet, Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.635	241.75	153.51	A
9999	Sundries & hole fast etc,	L.S.	31.20	2.27	70.82	
	TOTAL				7009.99	w
	Add 1% Water charges on “W-A”				27.08	
	TOTAL				7037.07	X
	Add GST on “X-A” (multiplying factor 0.2127)				581.67	
	TOTAL				7618.74	Y
	Add 15% CPOH on “Y-A”				497.46	
	TOTAL				8116.2	Z
	Add Cess @1% on “Z-A’				38.14	
	Cost of 1 board				8154.34	
	Cost for 1 each				8154.34	
	Say				8154.35	

16.62 Providing and applying 2.5 mm thick road marking strips (retro- reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 200 sqm (Area covered on one day):- MATERIAL Thermoplastic paint screeded in paint form for 2.5 mm thick road making stripe including glass beads etc. as per specifications 200 sqm @ 5kg/ sqm = 1000 kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Wastage @ 5% = 50kg					
	Total = 1050 kg					
8687	Thermoplastic paint	kg	1050.00	73.00	76650.00	
	Glass beads (B-class) to be sprayed over the paint stripe @ 250 gms. Per sqm = 100x0.25=25 kg					
8688	Glass beads	kg	50.00	77.50	3875.00	
	MACHINERY					
0033	Paint applicator.	day	1.00	900.00	900.00	
0083	Hire charges of TATA 407 or equivalent for local shifting.	day	1.00	1550.00	1550.00	
1241	Commercial LPG in cylinder.	kg	142.00	106.00	15052.00	
	LABOUR					
0157	Operator (Pile/ Special machine)	day	1.00	897.00	897.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	816.00	3264.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				105132.00	W
	Add 1 % Water charges on “W”				1051.32	
	TOTAL				106183.32	X
	Add GST on “X” (multiplying factor 0.2127)				22585.19	
	TOTAL				128768.51	Y
	Add 15% CPOH on “Y”				19315.28	
	TOTAL				148083.79	Z
	Add Cess @ 1% on “Z”				1480.84	
	Cost for 200 sqm				149564.63	
	Cost per sqm				747.82	
	Say				747.80	

16.63 Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	METERIAL					
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	700.00	700.00	
2260	Carriage of Brick aggregate	cum	1.00	0.00	0.00	
6501	Sand zone V (Jamuna)	cum	0.08	1320.00	105.60	
2335	Carriage of Jamuna sand	cum	0.08	0.00	0.00	
	Labour for spreading, ramming and consolidation.					
0114	Beldar	day	0.35	736.00	257.60	
0115	Coolie	day	0.26	736.00	191.36	
0101	Bhisti	day	0.18	816.00	146.88	
	Cement concrete-1:3:6					
4.1.6	Rate as per item no 4.1.6 of SH : Concrete					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Work	cum	0.50	7178.75	3589.38	A
	TOTAL				4990.82	W
	Add 1 % Water charges on “W-A”				14.01	
	TOTAL				5004.83	X
	Add GST on “X-A” (multiplying factor 0.2127)				301.07	
	TOTAL				5305.90	Y
	Add 15% CPOH on “Y-A”				257.48	
	TOTAL				5563.38	Z
	Add Cess @ 1% on “Z-A”				19.74	
	Cost for 10 sqm.				5583.12	
	Cost for 1 sqm.				558.31	
	Say				558.30	

16.64 Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	METERIAL					
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	700.00	700.00	
2260	Carriage of Brick aggregate	cum	1.00	0.00	0.00	
6501	Sand zone V (Jamuna)	cum	0.08	1320.00	105.60	
2335	Carriage of Jamuna sand	cum	0.08	0.00	0.00	
	Labour for spreading, ramming and consolidation.					
0114	Beldar	day	0.35	736.00	257.60	
0115	Coolie	day	0.26	736.00	191.36	
0101	Bhisti	day	0.18	816.00	146.88	
	TOTAL				1401.44	W
	Add 1 % Water charges on “W”				14.01	
	TOTAL				1415.45	X
	Add GST on “X” (multiplying factor 0.2127)				301.07	
	TOTAL				1716.52	Y
	Add 15% CPOH on “Y”				257.48	
	TOTAL				1974.00	Z
	Add Cess @ 1% on “Z”				19.74	
	Cost for 10 sqm.				1993.74	
	Cost for 1 sqm.				199.37	
	Say				199.35	

16.65 Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8685	Delineator	each	1.00	370.00	370.00	
9999	Fixing materials.	L.S.	78.00	2.27	177.06	
9999	Fixing charges.	L.S.	39.00	2.27	88.53	
	TOTAL				635.59	W
	Add 1 % Water charges on “W”				6.36	
	TOTAL				641.95	X
	Add GST on “X” (multiplying factor 0.2127)				136.54	
	TOTAL				778.49	Y
	Add 15% CPOH on “Y”				116.77	
	TOTAL				895.26	Z
	Add Cess @ 1% on “Z”				8.95	
	Cost of 1 no.				904.21	
	Say				904.20	

16.66 Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deported in layers not exceeding 20 cm in depth, including consolidating and deposited layer by ramming watering etc., disposing of surplus excavated soil as directed with in a lead of 50 mm and lift upto 1.5 m.

16.66.1 All kind of soil

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 holes-					
	Earth work 30x0.10 = 3.0 cum.					
	Extra labour for filling and ramming					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	3.00	260.30	780.90	A
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				811.59	W
	Add 1 % Water charges on “W-A”				0.31	
	TOTAL				811.90	X
	Add GST on “X-A” (multiplying factor 0.2127)				6.59	
	TOTAL				818.49	Y
	Add 15% CPOH on “Y-A”				5.64	
	TOTAL				824.13	Z
	Add Cess @ 1% on “Z-A”				0.43	
	Cost of 30 holes				824.56	
	Cost of 1 hole				27.49	
	Say				27.50	

16.67 Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	MATERIAL					
8694	Precast pavement slab 450 x 450 x 50 mm (M - 30)	each	48.00	160.00	7680.00	
9977	Carriage of slab.	L.S.	52.00	2.27	118.04	
	20mm (bed and joints) CM. 1:5 (1 cement: 5 coarse sand)					
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.25	3850.75	962.69	
	LABOUR					
0155	Mason (average)	day	1.10	857.00	942.70	
0100	Bandhani	day	1.10	816.00	897.60	
0114	Beldar	day	0.55	736.00	404.80	
0101	Bhisti	day	0.27	816.00	220.32	
9999	Sundries	L.S.	10.79	2.27	24.49	
	TOTAL				11250.64	W
	Add 1 % Water charges on “W”				112.51	
	TOTAL				11363.15	X
	Add GST on “X” (multiplying factor 0.2127)				2416.94	
	TOTAL				13780.09	Y
	Add 15% CPOH on “Y”				2067.01	
	TOTAL				15847.10	Z
	Add Cess @ 1% on “Z”				158.47	
	Cost for 10 sqm.				16005.57	
	Cost for 1 sqm				1600.56	
	Say				1600.55	

16.68 Providing and laying 60mm thick faciory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 sqm					
	MATERIAL					
8689	Interlocking C.C. paver block (60 mm thick, M-30)(including carriage)	sqm	10.00	400.00	4000.00	
	Bedding layer - 50mm thick					
0982	Coarse sand (zone III)	cum	0.50	1450.00	725.00	
	=10x0.050=0.50 cum					
2203	Carriage of Coarse sand	cum	0.50	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.15	980.00	147.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2203	Carriage of fine sand	cum	0.15	0.00	0.00	
	Laying charges (Bassed on actual observation)					
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.00	736.00	736.00	
0115	Coolie	day	0.50	736.00	368.00	
	TOTAL				6832.50	W
	Add 1 % Water charges on “W”				68.33	
	TOTAL				6900.83	X
	Add GST on “X” (multiplying factor 0.2127)				1467.81	
	TOTAL				8368.64	Y
	Add 15% CPOH on “Y”				1255.30	
	TOTAL				9623.94	Z
	Add Cess @ 1% on “Z”				96.24	
	Cost for 10.00 sqm				9720.18	
	Cost for 1.00 sqm.				972.02	
	Say				972.00	

16.69 Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured to calculate volume for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 100 metre i.e.					
	100x0.375x0.20=7.50 cum.					
	No. of kerb stones = 100/0.405=247 Nos					
	Precast C.C. Kerb stone M - 25 = 247x0.40x0.375x0.20=7.41 cum					
	METERIAL					
8686	Precast C.C. Kerb stone M - 25 (including carriage)	cum	7.41	6160.00	45645.60	
	Mortar 1:3 for fixing joints = 246x1x[(0.115+0.20)/2] x 0.375x0.005 = 0.073 cum.					
	Cement mortar 1:3 (1 cement : 3 coarse sand)					
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.073	4881.95	356.38	
	Labour for fixing of kerb stones					
0123	Mason 1st class	day	2.50	897.00	2242.50	
0124	Mason 2nd class	day	2.50	816.00	2040.00	
0114	Beldar	day	2.50	736.00	1840.00	
0115	Coolie	day	1.65	736.00	1214.40	
	TOTAL				53338.88	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				533.39	
	TOTAL				53872.27	X
	Add GST on “X” (multiplying factor 0.2127)				11458.63	
	TOTAL				65330.90	Y
	Add 15% CPOH on “Y”				9799.64	
	TOTAL				75130.54	Z
	Add Cess @ 1% on “Z”				751.31	
	Cost of 7.50 cum				75881.85	
	cost for 1 cum.				10117.58	
	Say				10117.60	

16.70 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.

16.70.1 Made of G.I. wire of dia 4 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
	G.I. chain link 50x50 mm mesh = 10.00 sqm. Wastage @ 5% = 0.50 sqm.					
	Total = 10.50 sqm.					
8695	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm	sqm	10.50	330.00	3465.00	
9977	Carriage.	L.S.	156.00	2.27	354.12	
	LABOUR					
0103	Blacksmith 2nd class	day	2.14	816.00	1746.24	
0114	Beldar	day	1.62	736.00	1192.32	
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.27	396.68	
	TOTAL				7154.36	W
	Add 1 % Water charges on “W”				71.54	
	TOTAL				7225.90	X
	Add GST on “X” (multiplying factor 0.2127)				1536.95	
	TOTAL				8762.85	Y
	Add 15% CPOH on “Y”				1314.43	
	TOTAL				10077.28	Z
	Add Cess @ 1% on “Z”				100.77	
	Cost for 10 sqm.				10178.05	
	Cost for 1 sqm.				1017.81	
	Say				1017.80	

16.70.2 Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
	G.I. chain link 50x50 mm mesh PVC coated = 10.00 sqm.					
	Wastage @ 5% = 0.50 sqm.					
	Total = 10.50 sqm.					
8696	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm, PVC coated to outer dia 5 mm	sqm	10.50	363.00	3811.50	
9977	Carriage.	L.S.	156.00	2.27	354.12	
	LABOUR					
0103	Blacksmith 2nd class	day	2.14	816.00	1746.24	
0114	Beldar	day	1.62	736.00	1192.32	
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.27	396.68	
	TOTAL				7500.86	W
	Add 1 % Water charges on “W”				75.01	
	TOTAL				7575.87	X
	Add GST on “X” (multiplying factor 0.2127)				1611.39	
	TOTAL				9187.26	Y
	Add 15% CPOH on “Y”				1378.09	
	TOTAL				10565.35	Z
	Add Cess @ 1% on “Z”				105.65	
	Cost for 10 sqm.				10671.00	
	Cost for 1 sqm.				1067.10	
	Say				1067.10	

16.71 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
	G.I. chain link 25x25 mm mesh = 10.00 sqm.					
	Wastage @ 5% = 0.50 sqm.					
	Total = 10.50 sqm.					
8697	Chain link fabric fencing mesh of size 25x25 mm made of G.I. wire of dia 3 mm	sqm	10.50	418.00	4389.00	
9977	Carriage.	L.S.	156.00	2.27	354.12	
	LABOUR					
0103	Blacksmith 2nd class	day	2.14	816.00	1746.24	
0114	Beldar	day	1.62	736.00	1192.32	
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.27	396.68	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				8078.36	W
	Add 1 % Water charges on “W”				80.78	
	TOTAL				8159.14	X
	Add GST on “X” (multiplying factor 0.2127)				1735.45	
	TOTAL				9894.59	Y
	Add 15% CPOH on “Y”				1484.19	
	TOTAL				11378.78	Z
	Add Cess @ 1% on “Z”				113.79	
	Cost for 10 sqm.				11492.57	
	Cost for 1 sqm.				1149.26	
	Say				1149.25	

16.72 Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 2.25 cum					
	MATERIAL					
	22.5 cm thick stone (Hard)					
1158	Stone for pitching 15 cm x 22.5 cm	cum	2.25	700.00	1575.00	
	Carriage by mechanical transport i/c loading unloading and stacking					
2215	Carriage of Soling stone & masonary stone	cum	2.25	0.00	0.00	
	TOTAL				1575.00	W
	Add 1 % Water charges on “W”				15.75	
	TOTAL				1590.75	X
	Add GST on “X” (multiplying factor 0.2127)				338.35	
	TOTAL				1929.10	Y
	Add 15% CPOH on “Y”				289.37	
	TOTAL				2218.47	Z
	Add Cess @ 1% on “Z”				22.18	
	Cost for 2.25 cum				2240.65	
	Cost for one cum				995.84	
	Say				995.85	

16.73 Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0123	Mason 1st class	day	1.08	897.00	968.76	
0124	Mason 2nd class	day	1.08	816.00	881.28	
0114	Beldar	day	2.15	736.00	1582.40	
0115	Coolie	day	1.61	736.00	1184.96	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				4632.75	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				46.33	
	TOTAL				4679.08	X
	Add GST on “X” (multiplying factor 0.2127)				995.24	
	TOTAL				5674.32	Y
	Add 15% CPOH on “Y”				851.15	
	TOTAL				6525.47	Z
	Add Cess @ 1% on “Z”				65.25	
	Cost for 10 sqm				6590.72	
	Cost for one sqm				659.07	
	Say				659.05	

16.74 75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :

16.74.1 Moorum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
0810	Moorum	cum	7.50	540.00	4050.00	
	Carriage by mechanical transport i/c loading unloading and stacking					
2265	Carriage of Moorum	cum	7.50	0.00	0.00	
	LABOUR					
0114	Beldar	day	1.64	736.00	1207.04	
0101	Bhisti	day	0.13	816.00	106.08	
	TOTAL				5363.12	W
	Add 1 % Water charges on “W”				53.63	
	TOTAL				5416.75	X
	Add GST on “X” (multiplying factor 0.2127)				1152.14	
	TOTAL				6568.89	Y
	Add 15% CPOH on “Y”				985.33	
	TOTAL				7554.22	Z
	Add Cess @ 1% on “Z”				75.54	
	Cost for 100 sqm				7629.76	
	Cost per sqm				76.30	
	Say				76.30	

16.74.2 Stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm					
	MATERIAL					
0295	Stone Aggregate (Single size) : 20 mm nominal size 100sqm x7.50cm= 7.50 cum	cum	7.50	1425.00	10687.50	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	7.50	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0114	Beldar	day	2.05	736.00	1508.80	
0101	Bhisti	day	0.13	816.00	106.08	
	TOTAL				12302.38	W
	Add 1 % Water charges on “W”				123.02	
	TOTAL				12425.40	X
	Add GST on “X” (multiplying factor 0.2127)				2642.88	
	TOTAL				15068.28	Y
	Add 15% CPOH on “Y”				2260.24	
	TOTAL				17328.52	Z
	Add Cess @ 1% on “Z”				173.29	
	Cost for 100 sqm				17501.81	
	Cost per sqm				175.02	
	Say				175.00	

16.74.3 Stone aggregate 40 mm nominal size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm					
	MATERIAL					
0293	Stone Aggregate (Single size) : 40 mm nominal size 100sqm x7.50cm= 7.50 cum	cum	7.50	1400.00	10500.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	7.50	0.00	0.00	
	LABOUR					
0114	Beldar	day	2.05	736.00	1508.80	
0101	Bhisti	day	0.13	816.00	106.08	
	TOTAL				12114.88	W
	Add 1 % Water charges on “W”				121.15	
	TOTAL				12236.03	X
	Add GST on “X” (multiplying factor 0.2127)				2602.60	
	TOTAL				14838.63	Y
	Add 15% CPOH on “Y”				2225.79	
	TOTAL				17064.42	Z
	Add Cess @ 1% on “Z”				170.64	
	Cost for 100 sqm				17235.06	
	Cost per sqm				172.35	
	Say				172.35	

16.75 Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately).

(Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 cum					
	MATERIAL					
	Ready mix concrete M 25 = 1.00 cum. i/c placing of concrete, vibrating, leveling etc					
5.33.1.1	Rate as per Item No.5.33.1.1 of SH:RCC	cum	1.00	9504.75	9504.75	A
9999	Operational charges for vacuum dewatering system i/c screed vibration, placing of filter mat , top mat, vacuum process, floating , troweling, Brooming etc	L.S.	57.20	2.27	129.84	
9999	T& P charges i/c consumable power charges, loading , unloading and hire charges of equipments	L.S.	41.60	2.27	94.43	
	TOTAL				9729.02	W
	Add 1 % Water charges on “W-A”				2.24	
	TOTAL				9731.26	X
	Add GST on “X-A” (multiplying factor 0.2127)				48.18	
	TOTAL				9779.44	Y
	Add 15% CPOH on “Y-A”				41.20	
	TOTAL				9820.64	Z
	Add Cess @ 1% on “Z-A”				3.16	
	Cost for 1 cum				9823.80	
	Cost for 1 cum				9823.80	
	Say				9823.80	

16.76 Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	Cement for M-25 mix = 0.410 t					
	Cement for M - 20 mix = 0.383 t					
	Difference = 0.027 t					
	METERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.027	5156.00	139.21	
2209	Carriage of Cement	tonne	0.027	0.00	0.00	
	Plasticizer for M- 25 mix = 2.050kg					
	Plasticizer for M- 20 mix = 1.915 kg					
	Difference = 0.135 kg					
7318	Plasticizer / super plasticizer	kilogram	0.135	30.00	4.05	
	TOTAL				143.26	W
	Add 1 % Water charges on “W”				1.43	
	TOTAL				144.69	X
	Add GST on “X” (multiplying factor 0.2127)				30.78	
	TOTAL				175.47	Y
	Add 15% CPOH on “Y”				26.32	
	TOTAL				201.79	Z
	Add Cess @ 1% on “Z”				2.02	
	Cost for 1 cum.				203.81	
	Say				203.80	

16.77 Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1km (by mechanical means).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	LABOUR					
0128	Mate	day	0.01	816.00	8.16	
0114	Beldar	day	0.25	736.00	184.00	
	MACHINERY					
0038	Tractor with ripper attachment.	day	0.01	1350.00	13.50	
0014	Front end loader capacity 1.00 cum	day	0.025	6700.00	167.50	
0017	Hire and running charges of tipper	day	0.028	4200.00	117.60	
	TOTAL				490.76	W
	Add 1 % Water charges on “W”				4.91	
	TOTAL				495.67	X
	Add GST on “X” (multiplying factor 0.2127)				105.43	
	TOTAL				601.10	Y
	Add 15% CPOH on “Y”				90.17	
	TOTAL				691.27	Z
	Add Cess @ 1% on “Z”				6.91	
	Cost for 100 sqm				698.18	
	Cost for 1 sqm				6.98	
	Say				7.00	

16.78 Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.

16.78.1 With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (450 tonnes)					
	MATERIAL					
	Close graded graunlar sub-base material as per Grading-I of specifications					
	53mm to 9.5mm @ 50% = 144 cum					
	9.5 mm to 2.36mm @ 20% = 57 cum					
	2.36mm below @ 30% = 86.40 cum					
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	72.00	1100.00	79200.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	72.00	1400.00	100800.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	72.00	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	72.00	0.00	0.00	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	57.00	1005.00	57285.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	57.00	0.00	0.00	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	43.20	1600.00	69120.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	43.20	1600.00	69120.00	
2203	Carriage of Coarse sand	cum	86.40	0.00	0.00	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH	hour	6.00	1050.00	6300.00	
	@75 tonne capacity					
0070	Generator 100 KVA/125 KVA	hour	6.00	350.00	2100.00	
0057	Water Tanker 5 to 6 KL capacity	hour	4.50	250.00	1125.00	
	5 km lead with one trip per hour					
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Tipper 10 tonne capacity(taking lead= 10 Km) =450x10 =4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0050	Motor Grader 3.35 metre blade	hour	6.00	2700.00	16200.00	
0054	Vibratory roller 8 to 10 tonne	hour	6.00	700.00	4200.00	
	LABOUR					
0128	Mate	day	0.40	816.00	326.40	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	816.00	1632.00	
0114	Beldar	day	8.00	736.00	5888.00	
	TOTAL				440311.40	W
	Add 1 % Water charges on “W”				4403.11	
	TOTAL				444714.51	X
	Add GST on “X” (multiplying factor 0.2127)				94590.78	
	TOTAL				539305.29	Y
	Add 15% CPOH on “Y”				80895.79	
	TOTAL				620201.08	Z
	Add Cess @ 1% on “Z”				6202.01	
	Cost for 225 cum(450 Tonne)				626403.09	
	Cost per cum.				2784.01	
	Say				2784.00	

16.78.2 With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBR Value-25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (450 tonnes)					
	MATERIAL					
	Close graded graunlar sub-base material as per Grading-I of specifications					
	26.5mm to 9.5mm @ 35% = 100.80 cum					
	9.5 mm to 2.36mm @ 25% = 72 cum					
	2.36mm below @ 40% = 115.20 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	50.40	1400.00	70560.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	50.40	1400.00	70560.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	100.80	0.00	0.00	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	72.00	1005.00	72360.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	72.00	0.00	0.00	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	57.60	1600.00	92160.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	57.60	1600.00	92160.00	
2203	Carriage of Coarse sand	cum	115.20	0.00	0.00	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH	hour	6.00	1050.00	6300.00	
	@75 tonne capacity					
0070	Generator 100 KVA/125 KVA	hour	6.00	350.00	2100.00	
0057	Water Tanker 5 to 6 KL capacity	hour	4.50	250.00	1125.00	
	5 km lead with one trip per hour					
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Tipper 10 tonne capacity(taking lead= 10 Km) =450x10 =4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0050	Motor Grader 3.35 metre blade	hour	6.00	2700.00	16200.00	
0054	Vibratory roller 8 to 10 tonne	hour	6.00	700.00	4200.00	
	LABOUR					
0128	Mate	day	0.40	816.00	326.40	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	816.00	1632.00	
0114	Beldar	day	8.00	736.00	5888.00	
	TOTAL				462586.40	W
	Add 1 % Water charges on “W”				4625.86	
	TOTAL				467212.26	X
	Add GST on “X” (multiplying factor 0.2127)				99376.05	
	TOTAL				566588.31	Y
	Add 15% CPOH on “Y”				84988.25	
	TOTAL				651576.56	Z
	Add Cess @ 1% on “Z”				6515.77	
	Cost for 225 cum(450 Tonne)				658092.33	
	Cost per cum.				2924.85	
	Say				2924.85	

16.78.3 With material conforming to Grade-III (size range 26.5 mm to 0.075 mm) having CBR Value-20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (450 tonnes)					
	MATERIAL					
	Close graded graunlar sub-base material as per Grading-III of specifications					
	9.5mm to 4.75mm @ 35% = 100.80 cum					
	4.75 mm to 2.36mm @ 12.5% = 36.00 cum					
	2.36mm below @ 52.5% = 151.20 cum					
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	100.80	1005.00	101304.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	100.80	0.00	0.00	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	36.00	1005.00	36180.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	36.00	0.00	0.00	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	75.60	1600.00	120960.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	75.60	1600.00	120960.00	
2203	Carriage of Coarse sand	cum	151.20	0.00	0.00	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH	hour	6.00	1050.00	6300.00	
	@75 tonne capacity					
0070	Generator 100 KVA/125 KVA	hour	6.00	350.00	2100.00	
0057	Water Tanker 5 to 6 KL capacity	hour	4.50	250.00	1125.00	
	5 km lead with one trip per hour					
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1450.00	8700.00	
	Tipper 10 tonne capacity(taking lead= 10Km) =450x10 =4500 t.Km					
0053	Tipper -5 Cum	tonne km	4500.00	3.70	16650.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1665.00	
0050	Motor Grader 3.35 metre blade	hour	6.00	2700.00	16200.00	
0054	Vibratory roller 8 to 10 tonne	hour	6.00	700.00	4200.00	
	LABOUR					
0128	Mate	day	0.40	816.00	326.40	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	816.00	1632.00	
0114	Beldar	day	8.00	736.00	5888.00	
	TOTAL				444190.40	W
	Add 1 % Water charges on “W”				4441.90	
	TOTAL				448632.30	X
	Add GST on “X” (multiplying factor 0.2127)				95424.09	
	TOTAL				544056.39	Y
	Add 15% CPOH on “Y”				81608.46	
	TOTAL				625664.85	Z
	Add Cess @ 1% on “Z”				6256.65	
	Cost for 225 cum(450 Tonne)				631921.50	
	Cost per cum.				2808.54	
	Say				2808.55	

16.79 Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (495 tonne)					
	MATERIAL					
	Conforming to table ……					
	45mm to22.4mm @ 30% = 89.10 cum					
	Qty for 0292,0293,0294,0295 codes =					
	89.10 / 4 = 22.275 cum					
	Qty for 2206, 2202 codes = 89.10 /2 = 44.55 cum					
	22.4 mm to 2.36mm @ 40% = 118.80 cum					
	Qty for 0294,0295 codes = 118.80 /4 = 29.70 cum					
	Qty for 1179 code = 118.80 /2 = 59.40 cum					
	2.36 mm to 75 microon @ 30% = 89.10 cum					
	Qty for 2903, 2904 codes = 89.10 / 2 = 44.55 cum					
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	22.275	1100.00	24502.50	
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	22.275	1400.00	31185.00	
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	22.275	1400.00	31185.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	22.275	1425.00	31741.88	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	44.55	0.00	0.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	44.55	0.00	0.00	
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	29.70	1400.00	41580.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	29.70	1425.00	42322.50	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	59.40	1005.00	59697.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	118.80	0.00	0.00	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	44.55	1600.00	71280.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	44.55	1600.00	71280.00	
2203	Carriage of Coarse sand	cum	89.10	0.00	0.00	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH	hour	6.60	1050.00	6930.00	
	@75 tonne capacity					
0070	Generator 100 KVA/125 KVA	hour	6.00	350.00	2100.00	
0057	Water Tanker 5 to 6 KL capacity	hour	3.00	250.00	750.00	
	5 km lead with one trip per hour					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0052	Front end loader 1 cum bucket capacity (incl POL) Tipper 10 tonne capacity(taking lead= 10 Km) =495x10 =4950 tonne km	hour	6.00	1450.00	8700.00	
0053	Tipper -5 Cum	tonne km	4950.00	3.70	18315.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1831.50	
0065	Paver finisher Mechanical 100 TPH	hour	6.00	900.00	5400.00	
0054	Vibratory roller 8 to 10 tonne	hour	3.90	700.00	2730.00	
	LABOUR					
0128	Mate	day	0.48	816.00	391.68	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	816.00	1632.00	
0114	Beldar	day	10.00	736.00	7360.00	
	TOTAL				460914.06	W
	Add 1 % Water charges on “W”				4609.14	
	TOTAL				465523.20	X
	Add GST on “X” (multiplying factor 0.2127)				99016.78	
	TOTAL				564539.98	Y
	Add 15% CPOH on “Y”				84681.00	
	TOTAL				649220.98	Z
	Add Cess @ 1% on “Z”				6492.21	
	Cost for 225 cum(450 Tonne)				655713.19	
	Cost per cum.				2914.28	
	Say				2914.30	

16.80 Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in- charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 450 cum (990 tonne)					
	MATERIAL					
	Crushed stone coarse aggregate of 25mm & 12.5 mm nominal sizes graded as per specifications @ 0.90 cum/cum of concrete conforming to specification. = 405 cum Coarse Sand @0.45 m3 per cum of concrete = 203 cum					
	Cement @150 Kg. per cum of concrete= 67.50 cum Qty for 0294,0296 codes = 405 / 2 = 202.50 cum					
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	202.50	1400.00	283500.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	202.50	1400.00	283500.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0982	Coarse sand (zone III)	cum	203.00	1450.00	294350.00	
0367	Portland Cement (OPC-43 grade)	tonne	67.50	5156.00	348030.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	405.00	0.00	0.00	
2203	Carriage of Coarse sand	cum	203.00	0.00	0.00	
2209	Carriage of Cement	tonne	67.50	0.00	0.00	
	Machinery/ Hire charges:					
0052	Front end loader 1 cum bucket capacity (incl POL) @75 tonne capacity	hour	6.00	1450.00	8700.00	
0066	Batching and Mixing Plant @ 75 cum per hour	hour	6.00	2700.00	16200.00	
0069	Generator 250 KVA	hour	6.00	450.00	2700.00	
	5 km lead with one trip per hour					
0065	Paver finisher Mechanical 100 TPH	hour	6.00	900.00	5400.00	
0054	Vibratory roller 8 to 10 tonne	hour	8.00	700.00	5600.00	
0057	Water Tanker 5 to 6 KL capacity	hour	8.00	250.00	2000.00	
	Tipper 10 tonne capacity (Taken 10km average lead) 990x10=9900 tonne km					
0053	Tipper -5 Cum	tonne km	9900.00	3.70	36630.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				3663.00	
	LABOUR					
0128	Mate	day	1.12	816.00	913.92	
0139	Skilled Beldar (for floor rubbing etc.)	day	6.00	816.00	4896.00	
0114	Beldar	day	22.00	736.00	16192.00	
	TOTAL				1312274.92	W
	Add 1 % Water charges on “W”				13122.75	
	TOTAL				1325397.67	X
	Add GST on “X” (multiplying factor 0.2127)				281912.08	
	TOTAL				1607309.75	Y
	Add 15% CPOH on “Y”				241096.46	
	TOTAL				1848406.21	Z
	Add Cess @ 1% on “Z”				18484.06	
	Cost for 450 cum(990 Tonne)				1866890.27	
	Cost per cum.				4148.65	
	Say				4148.65	

16.81 **Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50 m x2.00 m made of 40x40x6 mm angle iron or 50x50x3 mm hollow MS tube posts/horizontal members/bracings covered with 1.63 mm thick MS sheet. The sheet shall be fixed with 30x5 mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5 m. MS channel ISLC 75 @ 5.70 kg/m, 50 cm long shall be provided at the bottom having oval shaped holes of size 50x25 mm at both ends with 50 cm long MS angle 40x40x6 mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250 mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously including shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.**

(Note :- One time payment shall be made for providing barricading from start of work till completion of work including shifting. The barricading provided shall remain to be the property of the contractor on completion of the work).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 2.5 metre					
	MATERIAL					
16.81X	Rate as per Sub Analysis No.16.81X	metre	2.50	53.70	134.25	
16.81Y	Rate as per Sub Analysis No.16.81Y	metre	2.50	1673.35	4183.38	
13.50.3	Rate as per Item No.13.50.3 of SH: FINISHING	sqm	11.00	67.40	741.40	A
13.61.1	Rate as per Item No.13.61.1 of SH: FINISHING	sqm	11.00	155.90	1714.90	A
	TOTAL				6773.93	W
	Add 1 % Water charges on “W-A”				43.18	
	TOTAL				6817.11	X
	Add GST on “X-A” (multiplying factor 0.2127)				927.54	
	TOTAL				7744.65	Y
	Add 15% CPOH on “Y-A”				793.25	
	TOTAL				8537.90	Z
	Add Cess @ 1% on “Z-A”				60.82	
	Cost of 2.5 metre				8598.72	
	Cost of 1 metre				3439.49	
	Say				3439.50	

16.81X **Sub analysis item for material component of Item No. 16.81**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Sub analysis item no.16.81X to be used in Item No. 16.81					
	Details of cost for 2.5 metre					
	MATERIAL					
	M.S. Sheet 1.63mm thick = 1x2.50x2.00					
	= 5.00 sqm @ 12.80 kg/sqm = 64.00 kg					
	wastage @ 5%= 3.20 kg					
	Total = 67.20 kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1013	Mild steel sheets for tanks	quintal	0.672	5500.00	3696.00	
	MS Angle - 40 x 40 x 6 mm					
	Outframe=2x(2.50+2.00)=9.00 m					
	Vertical extra = 2x0.300 = 0.60 m					
	Horizontal = 1x2.50 =2.50 m					
	Bracing = 2x3.20 = 6.40 m					
	Bracing at bottom = 2x0.50 = 1.00 m					
	Total = 19.50 m @ 3.50 kg/m = 68.25 kg +					
	wastage @ 5% = 3.14 kg					
	Total = 71.66 kg					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.717	5965.00	4276.91	
	M.S. Channel = 2x0.50 =1.00 m @					
	5.70 kg/m = 5.70 kg+					
	wastage @ 5% = 0.29 kg					
	Total = 5.99 kg					
1007	Structurals such as tees, angles channels and R.S. joists	quintal	0.060	5965.00	357.90	
	M.S. Flat 30x5 mm					
	Horizontal = 2x2.50 = 5.00 m					
	Vertical = 2x2.00 = 4.00 m					
	Total = 9.00 m @ 1.20 kg/m = 10.80 kg +					
	wastage @ 5% = 0.54 kg					
	Total = 11.34 kg					
1008	Flats upto 10 mm in thickness	quintal	0.113	5450.00	615.85	
2205	Carriage of Steel	tonne	0.156	0.00	0.00	
	TOTAL				8946.66	P
	Add for maintenance @ 10% on P				894.67	Q
	Less for salvage value of material @ 50% on P				-4473.53	
	TOTAL				5368.00	S
	Assuming that material will become unserviceable after using 40 times, cost of 2.5 metre using once = S/40					
	Cost of 2.5 metre				134.20	
	Cost of 1 metre				53.68	
	Say				53.70	

16.81Y Sub analysis item for fabrication charges of Item No. 16.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Sub analysis item no.16.81Y to be used in Item No. 16.81					
	Details of cost for 2.5 metre					
	MATERIAL					
1215	Welding by electric plant	cm	165.00	2.50	412.50	
	Cutting, assembling and erection charges					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0102	Blacksmith 1st class	day	0.115	897.00	103.16	
0103	Blacksmith 2nd class	day	0.115	816.00	93.84	
0100	Bandhani	day	0.11	816.00	89.76	
0114	Beldar	day	0.83	736.00	610.88	
9999	Sundries	L.S.	12.10	2.27	27.47	
	Labour for riveting / bolting / cutting etc.					
0116	Fitter (grade 1)	day	0.41	897.00	367.77	
0103	Blacksmith 2nd class	day	0.54	816.00	440.64	
0100	Bandhani	day	0.70	816.00	571.20	
0114	Beldar	day	0.54	736.00	397.44	
0139	Skilled Beldar (for floor rubbing etc.)	day	0.81	816.00	660.96	
9999	Sundries	L.S.	12.10	2.27	27.47	
	TOTAL				3803.09	
	Shifting including transportation, re-erection etc. @ 10%				380.31	
	TOTAL Cost of 2.5 metre				4183.40	
	Cost of 1 metre				1673.36	
	Say				1673.35	

16.82 Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metre					
	LABOUR					
0114	Beldar	day	0.75	736.00	552.00	
0115	Coolie	day	3.00	736.00	2208.00	
9999	Sundries	L.S.	2.00	2.27	4.54	
	TOTAL				2764.54	W
	Add 1 % Water charges on “W”				27.65	
	TOTAL				2792.19	X
	Add GST on “X” (multiplying factor 0.2127)				593.90	
	TOTAL				3386.09	Y
	Add 15% CPOH on “Y”				507.91	
	TOTAL				3894.00	Z
	Add Cess @ 1% on “Z”				38.94	
	Cost of 100 metre				3932.94	
	Cost of 1 metre				39.33	
	Say				39.35	

16.83 Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	1.00	736.00	736.00	
9999	Sundries	L.S.	2.70	2.27	6.13	
	TOTAL				926.13	W
	Add 1 % Water charges on "W"				9.26	
	TOTAL				935.39	X
	Add GST on "X" (multiplying factor 0.2127)				198.96	
	TOTAL				1134.35	Y
	Add 15% CPOH on "Y"				170.15	
	TOTAL				1304.50	Z
	Add Cess @ 1% on "Z"				13.05	
	Cost of 10 sqm.				1317.55	
	Cost of 1 sqm				131.76	
	Say				131.75	

16.84 Laying old cement cocrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
	Bedding layer 50mm thick					
0982	Coarse sand (zone III)	cum	0.50	1450.00	725.00	
	Qty = 10 x 0.05 = 0.50 cum					
2203	Carriage of Coarse sand	cum	0.50	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.15	980.00	147.00	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.15	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.00	736.00	736.00	
0115	Coolie	day	0.50	736.00	368.00	
	TOTAL				2832.50	W
	Add 1 % Water charges on "W"				28.33	
	TOTAL				2860.83	X
	Add GST on "X" (multiplying factor 0.2127)				608.50	
	TOTAL				3469.33	Y
	Add 15% CPOH on "Y"				520.40	
	TOTAL				3989.73	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				39.90	
	Cost of 10 sqm.				4029.63	
	Cost of 1 sqm				402.96	
	Say				402.95	

16.85 Laying at or near ground level old kerb stones of all types in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement : 3 coarse sand), including making joints with or without grooves (thickness of joints, except at sharp curve, shall not be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer-in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metre					
	MATERIAL					
	Number of kerb stones = 100 / 0.405= 247 Nos.					
	Qty. = 247 x 0.40 x 0.375 x 0.20 = 7.41cum					
	No. of joints = 247 - 1 = 246 Nos.					
	Cement Mortar 1:3 for fixing joints = 246 x[(0.115 + 0.20)/2 x 0.375 x 0.005] = 0.073 cum					
3.8	Rate as per Item No.3.8 of SH:MORTARS	cum	0.073	4881.95	356.38	
	LABOUR					
0123	Mason 1st class	day	2.50	897.00	2242.50	
0124	Mason 2nd class	day	2.50	816.00	2040.00	
0114	Beldar	day	2.50	736.00	1840.00	
0115	Coolie	day	1.65	736.00	1214.40	
	TOTAL				7693.28	W
	Add 1 % Water charges on "W"				76.93	
	TOTAL				7770.21	X
	Add GST on "X" (multiplying factor 0.2127)				1652.72	
	TOTAL				9422.93	Y
	Add 15% CPOH on "Y"				1413.44	
	TOTAL				10836.37	Z
	Add Cess @ 1% on "Z"				108.36	
	Cost of 100 metre				10944.73	
	Cost of 1 metre				109.45	
	Say				109.45	

16.86 Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.

16.86.1 With granite stone of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 0.5sqm.					
	Mirror polished granite 0.5 sqm.					
	Waste @5% = 0.025 +0.5 = 0.525 sqm.					
7295	Granite of any colour, 18 mm thick (slab area upto 0.50 sqm)	sqm	0.525	1908.00	1001.70	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4211.70	50.54	
	LABOUR :					
0123	Mason 1st class	day	0.56	897.00	502.32	
0114	Beldar	day	0.05	736.00	36.80	
0115	Coolie	day	0.05	736.00	36.80	
9999	Sundries	L.S.	17.60	2.27	39.95	
	TOTAL				1668.11	W
	Add 1 % Water charges on “W”				16.68	
	TOTAL				1684.79	X
	Add GST on “X” (multiplying factor 0.2127)				358.35	
	TOTAL				2043.14	Y
	Add 15% CPOH on “Y”				306.47	
	TOTAL				2349.61	Z
	Add Cess @ 1% on “Z”				23.50	
	Cost of 0.5 sqm				2373.11	
	Cost per sqm.				4746.22	
	Say				4746.20	

16.87 Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.

16.87.1 With granite stone of colour black, cherry/ruby red of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 0.50 sqm					
	MATERIAL					
	Mirror polished granite 0.50 sqm + Waste @5% total = 0.025. Total = 0.525 sqm					
7296	Granite stone slab of colour Black, Cherry/ Ruby Red 30mm thick (slab area less than 0.5 sqm)	sqm	0.525	2045.00	1073.63	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4211.70	50.54	
	LABOUR :					
0123	Mason 1st class	day	0.56	897.00	502.32	
0114	Beldar	day	0.05	736.00	36.80	
0115	Coolie	day	0.05	736.00	36.80	
9999	Sundries	L.S.	17.60	2.27	39.95	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1740.04	W
	Add 1 % Water charges on “W”				17.40	
	TOTAL				1757.44	X
	Add GST on “X” (multiplying factor 0.2127)				373.81	
	TOTAL				2131.25	Y
	Add 15% CPOH on “Y”				319.69	
	TOTAL				2450.94	Z
	Add Cess @ 1% on “Z”				24.51	
	Cost of 0.5 sqm				2475.45	
	Cost of 1 sqm				4950.90	
	Say				4950.90	

16.87.2 With granite stone of all colour except black, cherry/ruby red of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 0.50 sqm					
	MATERIAL					
	Mirror polished granite 0.50 sqm + Waste @5% total = 0.025. Total = 0.525 sqm					
7300	Granite stone slab of all colour except Black, Cherry/Ruby Red 30mm thick (slab area less than 0.5 sqm)	sqm	0.525	2260.00	1186.50	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4211.70	50.54	
	LABOUR :					
0123	Mason 1st class	day	0.56	897.00	502.32	
0114	Beldar	day	0.05	736.00	36.80	
0115	Coolie	day	0.05	736.00	36.80	
9999	Sundries	L.S.	17.60	2.27	39.95	
	TOTAL				1852.91	W
	Add 1 % Water charges on “W”				18.53	
	TOTAL				1871.44	X
	Add GST on “X” (multiplying factor 0.2127)				398.06	
	TOTAL				2269.50	Y
	Add 15% CPOH on “Y”				340.43	
	TOTAL				2609.93	Z
	Add Cess @ 1% on “Z”				26.10	
	Cost of 0.5 sqm				2636.03	
	Cost of 1 sqm				5272.06	
	Say				5272.05	

16.88 Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi models etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm.					
	MATERIAL					
	Matt finished vitrified tile 100x100 x16mm					
7895	Matt finished vitrified tile 100x100 x16mm	sqm	10.000	990.00	9900.00	
9977	Carriage	L.S.	62.400	2.27	141.65	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.240	4211.70	1010.81	
9999	Sundries	L.S.	36.400	2.27	82.63	
0367	Portland Cement (OPC-43 grade)	tonne	0.033	5156.00	170.15	
	LABOUR :					
0123	Mason 1st class	day	2.000	897.00	1794.00	
0115	Coolie	day	2.000	736.00	1472.00	
9999	Sundries	L.S.	269.100	2.27	610.86	
	TOTAL				15182.10	W
	Add 1 % Water charges on “W”				151.82	
	TOTAL				15333.92	X
	Add GST on “X” (multiplying factor 0.2127)				3261.52	
	TOTAL				18595.44	Y
	Add 15% CPOH on “Y”				2789.32	
	TOTAL				21384.76	Z
	Add Cess @ 1% on “Z”				213.85	
	Cost for 10 sqm.				21598.61	
	Cost per sqm.				2159.86	
	Say				2159.85	

16.89 **Providing and laying matt finished vitrified tile of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm.					
	MATERIAL					
	Tile 300x300 x9.8mm = 10 sqm.					
7896	Vitrified tile	sqm	10.000	495.00	4950.00	
9977	Carriage	L.S.	62.400	2.27	141.65	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.240	4211.70	1010.81	
9999	Sundries	L.S.	36.400	2.27	82.63	
0367	Portland Cement (OPC-43 grade)	tonne	0.033	5156.00	170.15	
	LABOUR :					
0123	Mason 1st class	day	2.000	897.00	1794.00	
0115	Coolie	day	2.000	736.00	1472.00	
9999	Sundries	L.S.	269.100	2.27	610.86	
	TOTAL				10232.10	W
	Add 1 % Water charges on “W”				102.32	
	TOTAL				10334.42	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				2198.13	
	TOTAL				12532.55	Y
	Add 15% CPOH on “Y”				1879.88	
	TOTAL				14412.43	Z
	Add Cess @ 1% on “Z”				144.12	
	Cost for 10 sqm.				14556.55	
	Rate per sqm.				1455.66	
	Say				1455.65	

16.90 **Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm.					
	MATERIAL:					
	Tile 300x300 x9.8mm = 10 sqm.					
7893	Tactile tile	sqm	10.000	890.00	8900.00	
9977	Carriage	L.S.	62.400	2.27	141.65	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.240	4211.70	1010.81	
9999	Sundries	L.S.	36.400	2.27	82.63	
0367	Portland Cement (OPC-43 grade)	tonne	0.033	5156.00	170.15	
	LABOUR :					
0123	Mason 1st class	day	2.000	897.00	1794.00	
0115	Coolie	day	2.000	736.00	1472.00	
9999	Sundries	L.S.	269.100	2.27	610.86	
	TOTAL				14182.10	W
	Add 1 % Water charges on “W”				141.82	
	TOTAL				14323.92	X
	Add GST on “X” (multiplying factor 0.2127)				3046.70	
	TOTAL				17370.62	Y
	Add 15% CPOH on “Y”				2605.59	
	TOTAL				19976.21	Z
	Add Cess @ 1% on “Z”				199.76	
	Cosr for 10 sqm				20175.97	
	Cosr per sqm				2017.60	
	Say				2017.60	

16.91 **Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.**

16.91.1 60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL :					
7773	Coloured C.C. inter locking paver Block (60 mm thick, M-35) (including carriage)	sqm	10.00	450.00	4500.00	
0982	Coarse sand (zone-III)	cum	0.50	1450.00	725.00	
2203	Carriage of coarse sand	cum	0.50	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.11	980.00	107.80	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.11	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.00	736.00	736.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries	L.S.	25.00	2.27	56.75	
	TOTAL				7350.05	W
	Add 1 % Water charges on “W”				73.50	
	TOTAL				7423.55	X
	Add GST on “X” (multiplying factor 0.2127)				1578.99	
	TOTAL				9002.54	Y
	Add 15% CPOH on “Y”				1350.38	
	TOTAL				10352.92	Z
	Add Cess @ 1% on “Z”				103.53	
	Cost of 10 Sqm				10456.45	
	Cost of 1 Sqm				1045.65	
	Say				1045.65	

16.91.2 80 mm thick C.C. paver block of M-35 grade with approved colour design and pattern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 sqm.					
	MATERIALS :					
8785	Coloured C.C. inter locking paver Block (80 mm thick, M-35) (including carriage)	sqm	10.00	484.00	4840.00	
0982	Coarse sand (zone 111) (10 x 0.050 = 0.50 cum)	cum	0.50	1450.00	725.00	
2203	Carriage of Coarse sand	cum	0.50	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.15	980.00	147.00	
2261	Carriage of Fine sand	cum	0.15	0.00	0.00	
	Labour for Laying					
0123	Mason 1st class	day	0.50	897.00	448.50	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.00	736.00	736.00	
0115	Coolie	day	0.50	736.00	368.00	
	TOTAL				7672.50	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				76.73	
	TOTAL				7749.23	X
	Add GST on “X” (multiplying factor 0.2127)				1648.26	
	TOTAL				9397.49	Y
	Add 15% CPOH on “Y”				1409.62	
	TOTAL				10807.11	Z
	Add Cess @ 1% on “Z”				108.07	
	Cost of 10 Sqm				10915.18	
	Cost of 1 Sqm				1091.52	
	Say				1091.50	

16.92 Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 sqm.					
	MATERIALS :					
	Stone size 10x10x7.50cm =1sqm					
7774	Stone size 10x10x7.50cm (including carriage)	each	827.00	10.00	8270.00	
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.434	4211.70	1827.88	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
	LABOUR :					
0124	Mason 2nd class	day	1.08	816.00	881.28	
0114	Beldar	day	0.25	736.00	184.00	
0115	Coolie	day	1.62	736.00	1192.32	
0101	Bhisti	day	0.27	816.00	220.32	
13.33.1	Rate as per Item No.13.33.1 of SH: FINISHING	sqm	10.00	385.40	3854.00	A
	TOTAL				16532.92	W
	Add 1 % Water charges on “W-A”				126.79	
	TOTAL				16659.71	X
	Add GST on “X-A” (multiplying factor 0.2127)				2723.77	
	TOTAL				19383.48	Y
	Add 15% CPOH on “Y-A”				2329.42	
	TOTAL				21712.90	Z
	Add Cess @ 1% on “Z-A”				178.59	
	Cost of 10 sqm.				21891.49	
	Cost of 1 sqm.				2189.15	
	Say				2189.15	

16.93 Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways, neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick, 100 mm wide MS sheet duly painted over priming coat, reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc including cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of 10 Nos. of size 1.50m x0.40m = 6 sqm Volume=6x0.10=0.60 cum					
	MATERIALS :					
	Precast RCC M-25					
5.33.1.1	Rate as per Item No.5.33.1.1 of SH: REINFORCED CEMENT CONCRETE Reinforcement TMT	cum	0.600	9504.75	5702.85	A
5.22.6	Rate as per Item No.5.22.6 of SH: REINFORCED CEMENT CONCRETE Welding by gas plant/ Electric plant	Kg	45.900	107.85	4950.32	A
10.22	Rate as per Item No.10.22 of SH: STEEL WORK M.S. sheet 1.60 mm thick 10x2x(1.50+0.40) x0.10x0.016x7850=47.7kg	cm	820.000	3.70	3034.00	A
1013	Mild steel sheets for tanks Paint 10x2x(1.50+0.40)x0.10=3.8sqm	quintal	0.477	5500.00	2623.50	
13.61.1	Rate as per Item No.13.61.1 of SH: FINISHING Neat Cement Punning 10x1x1.50x0.40=6 sqm	sqm	3.800	155.90	592.42	A
13.18	Rate as per Item No.13.18 of SH: FINISHING	sqm	6.000	79.95	479.70	A
	TOTAL				17382.79	W
	Add 1 % Water charges on “W-A”				26.24	
	TOTAL				17409.03	X
	Add GST on “X-A” (multiplying factor 0.2127)				563.60	
	TOTAL				17972.63	Y
	Add 15% CPOH on “Y-A”				482.00	
	TOTAL				18454.63	Z
	Add Cess @ 1% on “Z-A”				36.95	
	Cost of 6 sqm.				18491.58	
	Cost of 1 sqm.				3081.93	
	Say				3081.95	

16.94 **Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of ± 2%) Zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @ 3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per direction of Engineer-in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum					
	MATERIAL					
8576	Crates made of Mesh type 10x12 (D=100 mm) Zn coated. (Mesh wire diameter 3.00 mm). Surface area required = 11.00 sqm.	sqm	11.00	230.00	2530.00	
7753	Stone boulder with least dimension 200mm	cum	2.00	875.00	1750.00	
2206	Carriage of boulder	cum	2.00	0.00	0.00	
	LABOUR					
0128	Mate	day	0.10	816.00	81.60	
0125	Mason (for plain stone work) 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.50	736.00	1104.00	
	TOTAL				5873.60	W
	Add 1 % Water charges on “W”				58.74	
	TOTAL				5932.34	X
	Add GST on “X” (multiplying factor 0.2127)				1261.81	
	TOTAL				7194.15	Y
	Add 15% CPOH on “Y”				1079.12	
	TOTAL				8273.27	Z
	Add Cess @ 1% on “Z”				82.73	
	Cost of 2 cum				8356.00	
	Cost of 1 cum				4178.00	
	Say				4178.00	

16.95 **Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of ± 2%) Zinic+PVC coated, Mesh wire diameter2.7/3.7mm, mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum					
	MATERIAL					
8577	Crates made of Mesh type 10x12 (D=100 mm) Zn+PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD). Surface area required = 11.00 sqm.	sqm	11.00	280.00	3080.00	
7753	Stone boulder with least dimension 200mm	cum	2.00	875.00	1750.00	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0128	Mate	day	0.10	816.00	81.60	
0125	Mason (for plain stone work) 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.50	736.00	1104.00	
	TOTAL				6423.60	W
	Add 1 % Water charges on “W”				64.24	
	TOTAL				6487.84	X
	Add GST on “X” (multiplying factor 0.2127)				1379.96	
	TOTAL				7867.80	Y
	Add 15% CPOH on “Y”				1180.17	
	TOTAL				9047.97	Z
	Add Cess @ 1% on “Z”				90.48	
	Cost of 2 cum				9138.45	
	Cost of 1 cum				4569.23	
	Say				4569.25	

16.96 **Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of ±2%), Zinic+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum					
	MATERIAL					
8578	Crates made of Mesh type 10x12 (D=100 mm) Zn+10% Al alloy + PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	11.00	320.00	3520.00	
	Surface area required = 11.00 sqm.					
7753	Stone boulder with least dimension 200mm	cum	2.00	875.00	1750.00	
	LABOUR					
0128	Mate	day	0.10	816.00	81.60	
0125	Mason (for plain stone work) 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.50	736.00	1104.00	
	TOTAL				6863.60	W
	Add 1 % Water charges on “W”				68.64	
	TOTAL				6932.24	X
	Add GST on “X” (multiplying factor 0.2127)				1474.49	
	TOTAL				8406.73	Y
	Add 15% CPOH on “Y”				1261.01	
	TOTAL				9667.74	Z
	Add Cess @ 1% on “Z”				96.68	
	Cost of 2 cum				9764.42	
	Cost of 1 cum				4882.21	
	Say				4882.20	

SUB HEAD : 17.0

SANITARY INSTALLATIONS

17.1 Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:

17.1.1 White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1350.00	1350.00	
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	621.00	621.00	
1896	100 mm S.C.I. trap with vent heel	each	1.00	358.00	358.00	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.25	897.00	1121.25	
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				4756.93	W
	Add 1 % Water charges on “W”				47.57	
	TOTAL				4804.50	X
	Add GST on “X” (multiplying factor 0.2127)				1021.92	
	TOTAL				5826.42	Y
	Add 15% CPOH on “Y”				873.96	
	TOTAL				6700.38	Z
	Add Cess @ 1% on “Z”				67.00	
	Cost of each				6767.38	
	Say				6767.40	

17.1.2 Stainless Steel AISI-304(18/8) Orissa pattern W.C. pan of size 585x480 mm with flush pipe and integrated type foot rests

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
7805	Salem Stainless steel AISI - 304 (18/8) Orrisa pattern W.C. pan 724mm X 578mm	each	1.00	4600.00	4600.00	
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	621.00	621.00	
1896	100 mm S.C.I. trap with vent heel	each	1.00	358.00	358.00	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.25	897.00	1121.25	
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				8006.93	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				80.07	
	TOTAL				8087.00	X
	Add GST on "X" (multiplying factor 0.2127)				1720.10	
	TOTAL				9807.10	Y
	Add 15% CPOH on "Y"				1471.07	
	TOTAL				11278.17	Z
	Add Cess @ 1% on "Z"				112.78	
	Cost of each				11390.95	
	Say				11390.95	

17.2 Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :

17.2.1 W.C. pan with ISI marked white solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	451.00	451.00	
1955	Vitreous china pedestal type water closet	each	1.00	1080.00	1080.00	
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	621.00	621.00	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.25	897.00	1121.25	
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				4579.93	W
	Add 1 % Water charges on "W"				45.80	
	TOTAL				4625.73	X
	Add GST on "X" (multiplying factor 0.2127)				983.89	
	TOTAL				5609.62	Y
	Add 15% CPOH on "Y"				841.44	
	TOTAL				6451.06	Z
	Add Cess @ 1% on "Z"				64.51	
	Cost of each				6515.57	
	Say				6515.55	

17.2.2 W.C. pan with ISI marked black solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	358.00	358.00	
1955	Vitreous china pedestal type water closet	each	1.00	1080.00	1080.00	
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	621.00	621.00	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.25	897.00	1121.25	
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				4486.93	W
	Add 1 % Water charges on "W"				44.87	
	TOTAL				4531.80	X
	Add GST on "X" (multiplying factor 0.2127)				963.91	
	TOTAL				5495.71	Y
	Add 15% CPOH on "Y"				824.36	
	TOTAL				6320.07	Z
	Add Cess @ 1% on "Z"				63.20	
	Cost of each				6383.27	
	Say				6383.25	

17.3 Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :

17.3.1 W.C. pan with ISI marked white solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	451.00	451.00	
1955	Vitreous china pedestal type water closet	each	1.00	1080.00	1080.00	
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00	
9999	Overflow arrangement and specials for oveflow pipe	L.S.	62.79	2.27	142.53	
1350	Mosquito proof coupling of approved design	each	1.00	35.00	35.00	
9999	Plugs ,screws etc.	L.S.	13.52	2.27	30.69	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				5627.99	W
	Add 1 % Water charges on "W"				56.28	
	TOTAL				5684.27	X
	Add GST on "X" (multiplying factor 0.2127)				1209.04	
	TOTAL				6893.31	Y
	Add 15% CPOH on "Y"				1034.00	
	TOTAL				7927.31	Z
	Add Cess @ 1% on "Z"				79.27	
	Cost of each				8006.58	
	Say				8006.60	

17.3.2 W.C. pan with ISI marked black solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	358.00	358.00	
1955	Vitreous china pedestal type water closet	each	1.00	1080.00	1080.00	
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00	
9999	Overflow arrangement and specials for oveflow pipe	L.S.	62.79	2.27	142.53	
1350	Mosquito proof coupling of approved design	each	1.00	35.00	35.00	
9999	Plugs, screws etc.	L.S.	13.52	2.27	30.69	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				5534.99	W
	Add 1 % Water charges on "W"				55.35	
	TOTAL				5590.34	X
	Add GST on "X" (multiplying factor 0.2127)				1189.07	
	TOTAL				6779.41	Y
	Add 15% CPOH on "Y"				1016.91	
	TOTAL				7796.32	Z
	Add Cess @ 1% on "Z"				77.96	
	Cost of each				7874.28	
	Say				7874.30	

17.4 Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :

17.4.1 One urinal basin with 5 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1913	Vitreous china lipped front urinal	each	1.00	517.00	517.00	
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	477.00	477.00	
7375	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Single lipped urinal	each	1.00	481.00	481.00	
9999	Red lead, white lead and gaskit	L.S.	13.52	2.27	30.69	
9999	Plugs ,screws etc.	L.S.	13.52	2.27	30.69	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9999	Painting of fittings etc.	L.S.	39.00	2.27	88.53	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	0.88	897.00	789.36	
0123	Mason 1st class	day	0.88	897.00	789.36	
0114	Beldar	day	1.50	736.00	1104.00	
	TOTAL				4399.41	W
	Add 1 % Water charges on “W”				43.99	
	TOTAL				4443.40	X
	Add GST on “X” (multiplying factor 0.2127)				945.11	
	TOTAL				5388.51	Y
	Add 15% CPOH on “Y”				808.28	
	TOTAL				6196.79	Z
	Add Cess @ 1% on “Z”				61.97	
	Cost of each				6258.76	
	Say				6258.75	

17.4.2 Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1913	Vitreous china lipped front urinal	each	2.00	517.00	1034.00	
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	477.00	477.00	
7376	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of two lipped urinals	each	1.00	795.00	795.00	
9999	Red lead, white lead and gaskit	L.S.	20.28	2.27	46.04	
9999	Plugs ,screws etc.	L.S.	20.28	2.27	46.04	
9999	Cement, sand and grit etc.	L.S.	20.28	2.27	46.04	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Painting of fittings etc.	L.S.	39.00	2.27	88.53	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.50	897.00	1345.50	
0123	Mason 1st class	day	1.50	897.00	1345.50	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				6756.74	W
	Add 1 % Water charges on “W”				67.57	
	TOTAL				6824.31	X
	Add GST on “X” (multiplying factor 0.2127)				1451.53	
	TOTAL				8275.84	Y
	Add 15% CPOH on “Y”				1241.38	
	TOTAL				9517.22	Z
	Add Cess @ 1% on “Z”				95.17	
	Cost of each				9612.39	
	Say				9612.40	

17.4.3 Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1913	Vitreous china lipped front urinal	each	3.00	517.00	1551.00	
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	545.00	545.00	
7377	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of three lipped urinals	each	1.00	1130.00	1130.00	
9999	Red lead, white lead and gaskit	L.S.	33.67	2.27	76.43	
9999	Plugs ,screws etc.	L.S.	33.67	2.27	76.43	
9999	Cement, sand and grit etc.	L.S.	33.67	2.27	76.43	
9999	Painting of fittings etc.	L.S.	39.00	2.27	88.53	
9977	Carriage of materials	L.S.	40.30	2.27	91.48	
	LABOUR					
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0123	Mason 1st class	day	2.00	897.00	1794.00	
0114	Beldar	day	3.00	736.00	2208.00	
	TOTAL				9431.30	W
	Add 1 % Water charges on “W”				94.31	
	TOTAL				9525.61	X
	Add GST on “X” (multiplying factor 0.2127)				2026.10	
	TOTAL				11551.71	Y
	Add 15% CPOH on “Y”				1732.76	
	TOTAL				13284.47	Z
	Add Cess @ 1% on “Z”				132.84	
	Cost of each				13417.31	
	Say				13417.30	

17.4.4 Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1913	Vitreous china lipped front urinal	each	4.00	517.00	2068.00	
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	545.00	545.00	
7378	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of four lipped urinals	each	1.00	1544.00	1544.00	
9999	Red lead, white lead and gaskit	L.S.	53.82	2.27	122.17	
9999	Plugs ,screws etc.	L.S.	53.82	2.27	122.17	
9999	Cement, sand and grit etc.	L.S.	53.82	2.27	122.17	
9999	Painting of fittings etc.	L.S.	39.00	2.27	88.53	
9977	Carriage of materials	L.S.	53.82	2.27	122.17	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	897.00	2691.00	
0123	Mason 1st class	day	3.00	897.00	2691.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				13060.21	W
	Add 1 % Water charges on “W”				130.60	
	TOTAL				13190.81	X
	Add GST on “X” (multiplying factor 0.2127)				2805.69	
	TOTAL				15996.50	Y
	Add 15% CPOH on “Y”				2399.48	
	TOTAL				18395.98	Z
	Add Cess @ 1% on “Z”				183.96	
	Cost of each				18579.94	
	Say				18579.95	

17.5 Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required:

17.5.1 Single half stall urinal with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	1.00	915.00	915.00	
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	477.00	477.00	
1532	Flush pipe with union spreaders and clamps all in C.P. brass for single stall	each	1.00	325.00	325.00	
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 50 mm dia	each	1.00	209.00	209.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	40.43	2.27	91.78	
	LABOUR					
0116	Fitter (grade 1)	day	1.75	897.00	1569.75	
0123	Mason 1st class	day	2.00	897.00	1794.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				8485.48	W
	Add 1 % Water charges on "W"				84.85	
	TOTAL				8570.33	X
	Add GST on "X" (multiplying factor 0.2127)				1822.91	
	TOTAL				10393.24	Y
	Add 15% CPOH on "Y"				1558.99	
	TOTAL				11952.23	Z
	Add Cess @ 1% on "Z"				119.52	
	Cost of each				12071.75	
	Say				12071.75	

17.5.2 Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	2.00	915.00	1830.00	
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	477.00	477.00	
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	1.00	450.00	450.00	
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 50 mm dia	each	1.00	209.00	209.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	53.82	2.27	122.17	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	53.82	2.27	122.17	
	LABOUR					
0116	Fitter (grade 1)	day	2.50	897.00	2242.50	
0123	Mason 1st class	day	3.00	897.00	2691.00	
0114	Beldar	day	6.00	736.00	4416.00	
	TOTAL				12658.70	W
	Add 1 % Water charges on "W"				126.59	
	TOTAL				12785.29	X
	Add GST on "X" (multiplying factor 0.2127)				2719.43	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				15504.72	Y
	Add 15% CPOH on "Y"				2325.71	
	TOTAL				17830.43	Z
	Add Cess @ 1% on "Z"				178.30	
	Cost of each				18008.73	
	Say				18008.75	

17.5.3 Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	3.00	915.00	2745.00	
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	545.00	545.00	
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	1.00	550.00	550.00	
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia	each	1.00	248.00	248.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	80.73	2.27	183.26	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	67.21	2.27	152.57	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	897.00	2691.00	
0123	Mason 1st class	day	3.50	897.00	3139.50	
0114	Beldar	day	7.00	736.00	5152.00	
	TOTAL				15505.19	W
	Add 1 % Water charges on "W"				155.05	
	TOTAL				15660.24	X
	Add GST on "X" (multiplying factor 0.2127)				3330.93	
	TOTAL				18991.17	Y
	Add 15% CPOH on "Y"				2848.68	
	TOTAL				21839.85	Z
	Add Cess @ 1% on "Z"				218.40	
	Cost of each				22058.25	
	Say				22058.25	

17.5.4 Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	4.00	915.00	3660.00	
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	545.00	545.00	
1535	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	1.00	630.00	630.00	
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia	each	1.00	248.00	248.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	107.64	2.27	244.34	
9999	Painting of fittings etc.	L.S.	39.00	2.27	88.53	
9977	Carriage of materials	L.S.	80.73	2.27	183.26	
	LABOUR					
0116	Fitter (grade 1)	day	3.50	897.00	3139.50	
0123	Mason 1st class	day	4.00	897.00	3588.00	
0114	Beldar	day	8.00	736.00	5888.00	
	TOTAL				18254.47	W
	Add 1 % Water charges on “W”				182.54	
	TOTAL				18437.01	X
	Add GST on “X” (multiplying factor 0.2127)				3921.55	
	TOTAL				22358.56	Y
	Add 15% CPOH on “Y”				3353.78	
	TOTAL				25712.34	Z
	Add Cess @ 1% on “Z”				257.12	
	Cost of each				25969.46	
	Say				25969.45	

17.6 Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C. automatic flushing cistern, with fittings, standard size G.I. / PVC flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete, including painting of fittings and cutting and making good the walls and floors etc. wherever required :

17.6.1 Single squatting plate with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1915	Vitreous china squatting plate urinal	each	1.00	1158.00	1158.00	
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	477.00	477.00	
1540	Flush pipe and spreaders G.I.for single set of one squatting plate urinal	each	1.00	200.00	200.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Cement, sand and grit etc.	L.S.	26.91	2.27	61.09	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	1.75	897.00	1569.75	
0123	Mason 1st class	day	0.75	897.00	672.75	
0114	Beldar	day	3.00	736.00	2208.00	
	TOTAL				6506.54	W
	Add 1 % Water charges on "W"				65.07	
	TOTAL				6571.61	X
	Add GST on "X" (multiplying factor 0.2127)				1397.78	
	TOTAL				7969.39	Y
	Add 15% CPOH on "Y"				1195.41	
	TOTAL				9164.80	Z
	Add Cess @ 1% on "Z"				91.65	
	Cost of each				9256.45	
	Say				9256.45	

17.6.2 Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1915	Vitreous china squatting plate urinal	each	2.00	1158.00	2316.00	
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	477.00	477.00	
1541	Flush pipe and spreaders G.I.for range of two squatting plates urinal	each	1.00	300.00	300.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	53.82	2.27	122.17	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	33.15	2.27	75.25	
	LABOUR					
0116	Fitter (grade 1)	day	2.50	897.00	2242.50	
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				9472.78	W
	Add 1 % Water charges on "W"				94.73	
	TOTAL				9567.51	X
	Add GST on "X" (multiplying factor 0.2127)				2035.01	
	TOTAL				11602.52	Y
	Add 15% CPOH on "Y"				1740.38	
	TOTAL				13342.90	Z
	Add Cess @ 1% on "Z"				133.43	
	Cost of each				13476.33	
	Say				13476.35	

17.6.3 Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1915	Vitreous china squatting plate urinal	each	3.00	1158.00	3474.00	
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	545.00	545.00	
1542	Flush pipe and spreaders G.I.for range of three squatting plates urinal	each	1.00	330.00	330.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	80.73	2.27	183.26	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	42.12	2.27	95.61	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	897.00	2691.00	
0123	Mason 1st class	day	1.50	897.00	1345.50	
0114	Beldar	day	5.00	736.00	3680.00	
	TOTAL				12443.23	W
	Add 1 % Water charges on “W”				124.43	
	TOTAL				12567.66	X
	Add GST on “X” (multiplying factor 0.2127)				2673.14	
	TOTAL				15240.80	Y
	Add 15% CPOH on “Y”				2286.12	
	TOTAL				17526.92	Z
	Add Cess @ 1% on “Z”				175.27	
	Cost of each				17702.19	
	Say				17702.20	

17.6.4 Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1915	Vitreous china squatting plate urinal	each	4.00	1158.00	4632.00	
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	545.00	545.00	
1543	Flush pipe and spreaders G.I.for range of four squatting plates urinal	each	1.00	470.00	470.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.27	39.84	
9999	Cement, sand and grit etc.	L.S.	107.64	2.27	244.34	
9999	Painting of fittings etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	69.03	2.27	156.70	
	LABOUR					
0116	Fitter (grade 1)	day	3.50	897.00	3139.50	
0123	Mason 1st class	day	1.75	897.00	1569.75	
0114	Beldar	day	5.50	736.00	4048.00	
	TOTAL				14904.15	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				149.04	
	TOTAL				15053.19	X
	Add GST on "X" (multiplying factor 0.2127)				3201.81	
	TOTAL				18255.00	Y
	Add 15% CPOH on "Y"				2738.25	
	TOTAL				20993.25	Z
	Add Cess @ 1% on "Z"				209.93	
	Cost of each				21203.18	
	Say				21203.20	

17.7 Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:

17.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	798.00	798.00	
1885	15 mm C.P.brass tap	each	2.00	297.00	594.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1861.94	W
	Add 1 % Water charges on "W"				18.62	
	TOTAL				1880.56	X
	Add GST on "X" (multiplying factor 0.2127)				400.00	
	TOTAL				2280.56	Y
	Add 15% CPOH on "Y"				342.08	
	TOTAL				2622.64	Z
	Add Cess @ 1% on "Z"				26.23	
	Cost of each				2648.87	
	Say				2648.85	

17.7.2 White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	798.00	798.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1564.94	W
	Add 1 % Water charges on "W"				15.65	
	TOTAL				1580.59	X
	Add GST on "X" (multiplying factor 0.2127)				336.19	
	TOTAL				1916.78	Y
	Add 15% CPOH on "Y"				287.52	
	TOTAL				2204.30	Z
	Add Cess @ 1% on "Z"				22.04	
	Cost of each				2226.34	
	Say				2226.35	

17.7.3 White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	554.00	554.00	
1885	15 mm C.P.brass tap	each	2.00	297.00	594.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1617.94	W
	Add 1 % Water charges on "W"				16.18	
	TOTAL				1634.12	X
	Add GST on "X" (multiplying factor 0.2127)				347.58	
	TOTAL				1981.70	Y
	Add 15% CPOH on "Y"				297.26	
	TOTAL				2278.96	Z
	Add Cess @ 1% on "Z"				22.79	
	Cost of each				2301.75	
	Say				2301.75	

17.7.4 White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	554.00	554.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1320.94	W
	Add 1 % Water charges on “W”				13.21	
	TOTAL				1334.15	X
	Add GST on “X” (multiplying factor 0.2127)				283.77	
	TOTAL				1617.92	Y
	Add 15% CPOH on “Y”				242.69	
	TOTAL				1860.61	Z
	Add Cess @ 1% on “Z”				18.61	
	Cost of each				1879.22	
	Say				1879.20	

17.7.5 White Vitreous China Angle back wash basin size 600 x 480 mm with single 15mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1949	Vitreous china angle back wash basin 600x480 mm	each	1.00	798.00	798.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1564.94	W
	Add 1 % Water charges on “W”				15.65	
	TOTAL				1580.59	X
	Add GST on “X” (multiplying factor 0.2127)				336.19	
	TOTAL				1916.78	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				287.52	
	TOTAL				2204.30	Z
	Add Cess @ 1% on "Z"				22.04	
	Cost of each				2226.34	
	Say				2226.35	

17.7.6 White Vitreous China Angle back wash basin size 400 x 400 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1950	Vitreous china angle back wash basin 400x400 mm	each	1.00	468.00	468.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1234.94	W
	Add 1 % Water charges on "W"				12.35	
	TOTAL				1247.29	X
	Add GST on "X" (multiplying factor 0.2127)				265.30	
	TOTAL				1512.59	Y
	Add 15% CPOH on "Y"				226.89	
	TOTAL				1739.48	Z
	Add Cess @ 1% on "Z"				17.39	
	Cost of each				1756.87	
	Say				1756.85	

17.7.7 White Vitreous China Flat back wash basin size 450x 300 mm with single 15mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7004	Vitreous china flat back wash basin 450x300 mm	each	1.00	297.00	297.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1063.94	W
	Add 1 % Water charges on “W”				10.64	
	TOTAL				1074.58	X
	Add GST on “X” (multiplying factor 0.2127)				228.56	
	TOTAL				1303.14	Y
	Add 15% CPOH on “Y”				195.47	
	TOTAL				1498.61	Z
	Add Cess @ 1% on “Z”				14.99	
	Cost of each				1513.60	
	Say				1513.60	

17.7.8 White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow including operated levers

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1133.00	1133.00	
7363	15 mm C.P. brass tap with elbow operation lever	each	2.00	464.00	928.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				2530.94	W
	Add 1 % Water charges on “W”				25.31	
	TOTAL				2556.25	X
	Add GST on “X” (multiplying factor 0.2127)				543.71	
	TOTAL				3099.96	Y
	Add 15% CPOH on “Y”				464.99	
	TOTAL				3564.95	Z
	Add Cess @ 1% on “Z”				35.65	
	Cost of each				3600.60	
	Say				3600.60	

17.7.9 White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI Marked

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1133.00	1133.00	
7363	15 mm C.P. brass tap with elbow operation lever	each	1.00	464.00	464.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				2066.94	W
	Add 1 % Water charges on “W”				20.67	
	TOTAL				2087.61	X
	Add GST on “X” (multiplying factor 0.2127)				444.03	
	TOTAL				2531.64	Y
	Add 15% CPOH on “Y”				379.75	
	TOTAL				2911.39	Z
	Add Cess @ 1% on “Z”				29.11	
	Cost of each				2940.50	
	Say				2940.50	

17.7.10 Stainless Steel AISI-304(18/8) Round basin 405x355 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7806	Salem Stainless steel AISI - 304 (18/8) Round basin 405mm X 355mm	each	1.00	1650.00	1650.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				2416.94	W
	Add 1 % Water charges on “W”				24.17	
	TOTAL				2441.11	X
	Add GST on “X” (multiplying factor 0.2127)				519.22	
	TOTAL				2960.33	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				444.05	
	TOTAL				3404.38	Z
	Add Cess @ 1% on "Z"				34.04	
	Cost of each				3438.42	
	Say				3438.40	

17.7.11 Stainless Steel AISI-304(18/8) Wash basin 530x345 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7807	Salem Stainless steel AISI - 304 (18/8) Wash basin 530mm X 345mm	each	1.00	2150.00	2150.00	
1885	15 mm C.P.brass tap	each	1.00	297.00	297.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				2916.94	W
	Add 1 % Water charges on "W"				29.17	
	TOTAL				2946.11	X
	Add GST on "X" (multiplying factor 0.2127)				626.64	
	TOTAL				3572.75	Y
	Add 15% CPOH on "Y"				535.91	
	TOTAL				4108.66	Z
	Add Cess @ 1% on "Z"				41.09	
	Cost of each				4149.75	
	Say				4149.75	

17.7A Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-

(a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	554.00	554.00	
9001	C.P. Brass Centre Hole Basin Mixer With Cast Spout (Kigston/Marc/Prima/ Parko/ Hindware)	each	1.00	1760.00	1760.00	
1951	C.P. brass waste 32 mm	each	1.00	94.00	94.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, Sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				2783.94	W
	Add 1 % Water charges on “W”				27.84	
	TOTAL				2811.78	X
	Add GST on “X” (multiplying factor 0.2127)				598.07	
	TOTAL				3409.85	Y
	Add 15% CPOH on “Y”				511.48	
	TOTAL				3921.33	Z
	Add Cess @ 1% on “Z”				39.21	
	Cost of each				3960.54	
	Say				3960.55	

17.7B **Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No.					
	MATERIAL					
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	554.00	554.00	
7406	PTMT pillar cock	each	1.00	125.00	125.00	
7491	PTMT - Waste Coupling 31/32 mm	each	1.00	35.00	35.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Red Lead, White Lead and Gasket	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc	L.S.	13.39	2.27	30.40	
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
9999	Fixing Charges	L.S.	53.82	2.27	122.17	
	TOTAL				1089.94	W
	Add 1 % Water charges on “W”				10.90	
	TOTAL				1100.84	X
	Add GST on “X” (multiplying factor 0.2127)				234.15	
	TOTAL				1334.99	Y
	Add 15% CPOH on “Y”				200.25	
	TOTAL				1535.24	Z
	Add Cess @ 1% on “Z”				15.35	
	Cost of each				1550.59	
	Say				1550.60	

17.8 Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pedestal					
	MATERIAL					
1396	Vitrous china pedestal for wash basin	each	1.00	1000.00	1000.00	
9999	White cement mortar	L.S.	40.30	2.27	91.48	
9988	Carriage of materials and fixing charges	L.S.	40.43	2.27	91.78	
	TOTAL				1183.26	W
	Add 1 % Water charges on "W"				11.83	
	TOTAL				1195.09	X
	Add GST on "X" (multiplying factor 0.2127)				254.20	
	TOTAL				1449.29	Y
	Add 15% CPOH on "Y"				217.39	
	TOTAL				1666.68	Z
	Add Cess @ 1% on "Z"				16.67	
	Cost of each				1683.35	
	Say				1683.35	

17.9 Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required:

17.9.1 White glazed fire clay kitchen sink of size 600x450x 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1863	Fire clay kitchen sink: 600x450x250 mm	each	1.00	1430.00	1430.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	37.00	37.00	
1952	C.P. brass waste 40 mm	each	1.00	110.00	110.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting brackets etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.33	897.00	296.01	
0114	Beldar	day	0.56	736.00	412.16	
	TOTAL				2736.28	W
	Add 1 % Water charges on "W"				27.36	
	TOTAL				2763.64	X
	Add GST on "X" (multiplying factor 0.2127)				587.83	
	TOTAL				3351.47	Y
	Add 15% CPOH on "Y"				502.72	
	TOTAL				3854.19	Z
	Add Cess @ 1% on "Z"				38.54	
	Cost of each				3892.73	
	Say				3892.75	

17.10 Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :

17.10.1 Kitchen sink with drain board

17.10.1.1 510x1040 mm bowl depth 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7095	Stainless steel kitchen sink - with drain board bowl depth 250 mm.	each	1.00	3200.00	3200.00	
1309	C.I. bracket for wash basin and sinks	pair	2.00	95.00	190.00	
9999	Cement, sand and grit etc.	L.S.	27.04	2.27	61.38	
9999	Painting of brackets etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.60	897.00	538.20	
0114	Beldar	day	0.82	736.00	603.52	
	TOTAL				4882.22	W
	Add 1 % Water charges on “W”				48.82	
	TOTAL				4931.04	X
	Add GST on “X” (multiplying factor 0.2127)				1048.83	
	TOTAL				5979.87	Y
	Add 15% CPOH on “Y”				896.98	
	TOTAL				6876.85	Z
	Add Cess @ 1% on “Z”				68.77	
	Cost of each				6945.62	
	Say				6945.60	

17.10.1.2 510x1040 mm bowl depth 225 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7096	Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 225 mm.	each	1.00	3600.00	3600.00	
1309	C.I. bracket for wash basin and sinks	pair	2.00	95.00	190.00	
9999	Cement, sand and grit etc.	L.S.	27.04	2.27	61.38	
9999	Painting of brackets etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.60	897.00	538.20	
0114	Beldar	day	0.82	736.00	603.52	
	TOTAL				5282.22	W
	Add 1 % Water charges on “W”				52.82	
	TOTAL				5335.04	X
	Add GST on “X” (multiplying factor 0.2127)				1134.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				6469.80	Y
	Add 15% CPOH on "Y"				970.47	
	TOTAL				7440.27	Z
	Add Cess @ 1% on "Z"				74.40	
	Cost of each				7514.67	
	Say				7514.65	

17.10.1.3 510x1040 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7097	Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 200 mm.	each	1.00	3350.00	3350.00	
1309	C.I. bracket for wash basin and sinks	pair	2.00	95.00	190.00	
9999	Cement, sand and grit etc.	L.S.	27.04	2.27	61.38	
9999	Painting of brackets etc.	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.60	897.00	538.20	
0114	Beldar	day	0.82	736.00	603.52	
	TOTAL				5032.22	W
	Add 1 % Water charges on "W"				50.32	
	TOTAL				5082.54	X
	Add GST on "X" (multiplying factor 0.2127)				1081.06	
	TOTAL				6163.60	Y
	Add 15% CPOH on "Y"				924.54	
	TOTAL				7088.14	Z
	Add Cess @ 1% on "Z"				70.88	
	Cost of each				7159.02	
	Say				7159.00	

17.10.1.4 510x1040 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7098	Stainless steel kitchen sink - with drain board 510x1040mm bowl depth 178 mm	each	1.00	3180.00	3180.00	
1309	C.I. bracket for wash basin and sinks	pair	2.00	95.00	190.00	
9999	Cement, sand and grit etc.	L.S.	27.04	2.27	61.38	
9999	Painting brackets	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	0.60	897.00	538.20	
0114	Beldar	day	0.82	736.00	603.52	
	TOTAL				4862.22	W
	Add 1 % Water charges on “W”				48.62	
	TOTAL				4910.84	X
	Add GST on “X” (multiplying factor 0.2127)				1044.54	
	TOTAL				5955.38	Y
	Add 15% CPOH on “Y”				893.31	
	TOTAL				6848.69	Z
	Add Cess @ 1% on “Z”				68.49	
	Cost of each				6917.18	
	Say				6917.20	

17.10.2 Kitchen sink without drain board

17.10.2.1 610x510 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7101	Stainless steel kitchen sink - without drain board 610x510mm bowl depth 200 mm	each	1.00	2350.00	2350.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9999	Painting brackets	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.33	897.00	296.01	
0114	Beldar	day	0.56	736.00	412.16	
	TOTAL				3472.98	W
	Add 1 % Water charges on “W”				34.73	
	TOTAL				3507.71	X
	Add GST on “X” (multiplying factor 0.2127)				746.09	
	TOTAL				4253.80	Y
	Add 15% CPOH on “Y”				638.07	
	TOTAL				4891.87	Z
	Add Cess @ 1% on “Z”				48.92	
	Cost of each				4940.79	
	Say				4940.80	

17.10.2.2 610x460 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7102	Stainless steel kitchen sink - without drain board 610x460mm bowl depth 200 mm.	each	1.00	1600.00	1600.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9999	Painting brackets	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.33	897.00	296.01	
0114	Beldar	day	0.56	736.00	412.16	
	TOTAL				2722.98	W
	Add 1 % Water charges on “W”				27.23	
	TOTAL				2750.21	X
	Add GST on “X” (multiplying factor 0.2127)				584.97	
	TOTAL				3335.18	Y
	Add 15% CPOH on “Y”				500.28	
	TOTAL				3835.46	Z
	Add Cess @ 1% on “Z”				38.35	
	Cost of each				3873.81	
	Say				3873.80	

17.10.2.3 470x420 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7103	Stainless steel kitchen sink - without drain board 470x420mm bowl depth 178 mm	each	1.00	1272.00	1272.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9999	Painting brackets	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.33	897.00	296.01	
0114	Beldar	day	0.56	736.00	412.16	
	TOTAL				2394.98	W
	Add 1 % Water charges on “W”				23.95	
	TOTAL				2418.93	X
	Add GST on “X” (multiplying factor 0.2127)				514.51	
	TOTAL				2933.44	Y
	Add 15% CPOH on “Y”				440.02	
	TOTAL				3373.46	Z
	Add Cess @ 1% on “Z”				33.73	
	Cost of each				3407.19	
	Say				3407.20	

17.11 Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :

17.11.1 Size 450x300x150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1871	White vitreous china laboratry sink 450x300x150 mm	each	1.00	1650.00	1650.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	37.00	37.00	
1952	C.P. brass waste 40 mm	each	1.00	110.00	110.00	
1895	C.P.brass trap40 mm dia	each	1.00	347.00	347.00	
3617	C.P.brass union 40 mm dia	each	1.00	226.00	226.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Sundries	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.33	897.00	296.01	
0114	Beldar	day	0.56	736.00	412.16	
	TOTAL				3529.28	W
	Add 1 % Water charges on “W”				35.29	
	TOTAL				3564.57	X
	Add GST on “X” (multiplying factor 0.2127)				758.18	
	TOTAL				4322.75	Y
	Add 15% CPOH on “Y”				648.41	
	TOTAL				4971.16	Z
	Add Cess @ 1% on “Z”				49.71	
	Cost of each				5020.87	
	Say				5020.85	

17.11.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1872	White vitreous china laboratry sink 600x450x200 mm	each	1.00	2750.00	2750.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	37.00	37.00	
1952	C.P. brass waste 40 mm	each	1.00	110.00	110.00	
1895	C.P.brass trap40 mm dia	each	1.00	347.00	347.00	
3617	C.P.brass union 40 mm dia	each	1.00	226.00	226.00	
9999	Red lead, white lead and gaskit	L.S.	16.12	2.27	36.59	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Sundries	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0123	Mason 1st class	day	0.33	897.00	296.01	
0114	Beldar	day	0.56	736.00	412.16	
	TOTAL				4629.28	W
	Add 1 % Water charges on "W"				46.29	
	TOTAL				4675.57	X
	Add GST on "X" (multiplying factor 0.2127)				994.49	
	TOTAL				5670.06	Y
	Add 15% CPOH on "Y"				850.51	
	TOTAL				6520.57	Z
	Add Cess @ 1% on "Z"				65.21	
	Cost of each				6585.78	
	Say				6585.80	

17.12 Providing and fixing draining board with C.I. brackets including painting of brackets, cutting and making good the walls wherever required :

17.12.1 White glazed fire clay draining board of size 600x450x 25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7364	White glazed fire clay draining board 600x450x25 mm	each	1.00	540.00	540.00	
1309	C.I. bracket for wash basin and sinks	pair	1.00	95.00	95.00	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9999	Painting brackets etc.	L.S.	26.00	2.27	59.02	
9977	Carriage of materials	L.S.	7.80	2.27	17.71	
	LABOUR					
0116	Fitter (grade 1)	day	0.06	897.00	53.82	
0123	Mason 1st class	day	0.17	897.00	152.49	
0114	Beldar	day	0.22	736.00	161.92	
	TOTAL				1110.36	W
	Add 1 % Water charges on "W"				11.10	
	TOTAL				1121.46	X
	Add GST on "X" (multiplying factor 0.2127)				238.53	
	TOTAL				1359.99	Y
	Add 15% CPOH on "Y"				204.00	
	TOTAL				1563.99	Z
	Add Cess @ 1% on "Z"				15.64	
	Cost of each				1579.63	
	Say				1579.65	

17.13 Providing and fixing white vitreous china water closet squatting pan (Indian type) :

17.13.1 Long pattern W.C. pan of size 580 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1953	Vitreous china indian type w.c. pan size 580 mm	each	1.00	500.00	500.00	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				1377.59	W
	Add 1 % Water charges on "W"				13.78	
	TOTAL				1391.37	X
	Add GST on "X" (multiplying factor 0.2127)				295.94	
	TOTAL				1687.31	Y
	Add 15% CPOH on "Y"				253.10	
	TOTAL				1940.41	Z
	Add Cess @ 1% on "Z"				19.40	
	Cost of each				1959.81	
	Say				1959.80	

17.13.2 Orissa pattern W.C. pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1350.00	1350.00	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				2227.59	W
	Add 1 % Water charges on "W"				22.28	
	TOTAL				2249.87	X
	Add GST on "X" (multiplying factor 0.2127)				478.55	
	TOTAL				2728.42	Y
	Add 15% CPOH on "Y"				409.26	
	TOTAL				3137.68	Z
	Add Cess @ 1% on "Z"				31.38	
	Cost of each				3169.06	
	Say				3169.05	

17.14 Extra for using coloured W.C. pan instead of white W.C. pan :

17.14.1 Orissa pattern W.C. pan 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
	Difference in cost of					
7104	Coloured Orissa pattern W.C. pan 580x440 mm	each	1.00	1650.00	1650.00	
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	-1.000	1350.00	-1350.00	
	TOTAL				300.00	W
	Add 1 % Water charges on "W"				3.00	
	TOTAL				303.00	X
	Add GST on "X" (multiplying factor 0.2127)				64.45	
	TOTAL				367.45	Y
	Add 15% CPOH on "Y"				55.12	
	TOTAL				422.57	Z
	Add Cess @ 1% on "Z"				4.23	
	Cost of each				426.80	
	Say				426.80	

17.15 Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1955	Vitreous china pedestal type water closet	each	1.00	1080.00	1080.00	
9999	Cement, sand and grit etc.	L.S.	13.39	2.27	30.40	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				1957.59	W
	Add 1 % Water charges on "W"				19.58	
	TOTAL				1977.17	X
	Add GST on "X" (multiplying factor 0.2127)				420.54	
	TOTAL				2397.71	Y
	Add 15% CPOH on "Y"				359.66	
	TOTAL				2757.37	Z
	Add Cess @ 1% on "Z"				27.57	
	Cost of each				2784.94	
	Say				2784.95	

17.16 Extra for using coloured pedestal type W.C pan (European type) with low level cistern of same colour instead of white vitreous china W.C pan and cistern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7105	Coloured Pedestal type W.C. pan 580x440 mm (European type)	each	1.000	900.00	900.00	
	Deduct					
1955	Vitreous china pedestal type water closet	each	-1.000	1080.00	-1080.00	
7106	Coloured Vitreous china 10 lit. low level cistern	each	1.000	1000.00	1000.00	
	Deduct					
7005	Vitreous china 10 litres low level cistern without fittings	each	-1.000	700.00	-700.00	
	TOTAL				120.00	W
	Add 1 % Water charges on "W"				1.20	
	TOTAL				121.20	X
	Add GST on "X" (multiplying factor 0.2127)				25.78	
	TOTAL				146.98	Y
	Add 15% CPOH on "Y"				22.05	
	TOTAL				169.03	Z
	Add Cess @ 1% on "Z"				1.69	
	Cost of each				170.72	
	Say				170.70	

17.16A Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to Eureopean type W.C. of quality and make as approved by Engineer - in - charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No.					
1313	8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. tringular plate for Eureopean type W.C.(Hindware/ Kingston/Prima/Parko/Marc)	each	1.00	220.00	220.00	
9999	Carriage of material and fixing charges	L.S.	11.20	2.27	25.42	
	TOTAL				245.42	W
	Add 1 % Water charges on "W"				2.45	
	TOTAL				247.87	X
	Add GST on "X" (multiplying factor 0.2127)				52.72	
	TOTAL				300.59	Y
	Add 15% CPOH on "Y"				45.09	
	TOTAL				345.68	Z
	Add Cess @ 1% on "Z"				3.46	
	Cost of each				349.14	
	Say				349.15	

17.17 Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :

17.17.1 250x130x30 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pair					
	MATERIAL					
1363	Vitreous china foot rests 250x130x30 mm	pair	1.00	100.00	100.00	
9988	Cement, sand including carriage of materials	L.S.	8.06	2.27	18.30	
	LABOUR					
0123	Mason 1st class	day	0.06	897.00	53.82	
	TOTAL				172.12	W
	Add 1 % Water charges on “W”				1.72	
	TOTAL				173.84	X
	Add GST on “X” (multiplying factor 0.2127)				36.98	
	TOTAL				210.82	Y
	Add 15% CPOH on “Y”				31.62	
	TOTAL				242.44	Z
	Add Cess @ 1% on “Z”				2.42	
	Cost for 1 pair				244.86	
	Say				244.85	

17.17.2 250x125x25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pair					
	MATERIAL					
1970	Vitreous china foot rests 250x125x25 mm	pair	1.00	108.00	108.00	
9988	Cement, sand including carriage of materials	L.S.	8.06	2.27	18.30	
	LABOUR					
0123	Mason 1st class	day	0.06	897.00	53.82	
	TOTAL				180.12	W
	Add 1 % Water charges on “W”				1.80	
	TOTAL				181.92	X
	Add GST on “X” (multiplying factor 0.2127)				38.69	
	TOTAL				220.61	Y
	Add 15% CPOH on “Y”				33.09	
	TOTAL				253.70	Z
	Add Cess @ 1% on “Z”				2.54	
	Cost for 1 pair				256.24	
	Say				256.25	

17.18 Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.

17.18.1 10 litre capacity - White

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	621.00	621.00	
9977	Carriage of materials	L.S.	5.20	2.27	11.80	
	LABOUR					
	(Considering 1 fitter and 1 beldar can fix 8 cistern in one day)					
0116	Fitter (grade 1)	day	0.125	897.00	112.13	
0114	Beldar	day	0.125	736.00	92.00	
	TOTAL				836.93	W
	Add 1 % Water charges on "W"				8.37	
	TOTAL				845.30	X
	Add GST on "X" (multiplying factor 0.2127)				179.80	
	TOTAL				1025.10	Y
	Add 15% CPOH on "Y"				153.77	
	TOTAL				1178.87	Z
	Add Cess @ 1% on "Z"				11.79	
	Cost of each				1190.66	
	Say				1190.65	

17.18.2 10 litre capacity - coloured

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7123	Coloured High density polythylene/ poly propylene 10 lit. (full flush) capacity controlled low level flushing cistern with fittings	each	1.00	583.00	583.00	
9977	Carriage of materials	L.S.	5.20	2.27	11.80	
	LABOUR					
	(Considering 1 fitter and 1 beldar can fix 8 cistern in one day)					
0116	Fitter (grade 1)	day	0.125	897.00	112.13	
0114	Beldar	day	0.125	736.00	92.00	
	TOTAL				798.93	W
	Add 1 % Water charges on "W"				7.99	
	TOTAL				806.92	X
	Add GST on "X" (multiplying factor 0.2127)				171.63	
	TOTAL				978.55	Y
	Add 15% CPOH on "Y"				146.78	
	TOTAL				1125.33	Z
	Add Cess @ 1% on "Z"				11.25	
	Cost of each				1136.58	
	Say				1136.60	

17.19 Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.

17.19.1 10 litre (full flush) capacity-white

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7126	White Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	1.00	730.00	730.00	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				1577.19	W
	Add 1 % Water charges on "W"				15.77	
	TOTAL				1592.96	X
	Add GST on "X" (multiplying factor 0.2127)				338.82	
	TOTAL				1931.78	Y
	Add 15% CPOH on "Y"				289.77	
	TOTAL				2221.55	Z
	Add Cess @ 1% on "Z"				22.22	
	Cost of each				2243.77	
	Say				2243.75	

17.19.2 10 litre (full flush) capacity-coloured

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7127	Coloured Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	1.00	1200.00	1200.00	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				2047.19	W
	Add 1 % Water charges on "W"				20.47	
	TOTAL				2067.66	X
	Add GST on "X" (multiplying factor 0.2127)				439.79	
	TOTAL				2507.45	Y
	Add 15% CPOH on "Y"				376.12	
	TOTAL				2883.57	Z
	Add Cess @ 1% on "Z"				28.84	
	Cost of each				2912.41	
	Say				2912.40	

17.20 Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :

17.20.1 White solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	451.00	451.00	
9988	Carriage of materials and fixing charges	L.S.	13.39	2.27	30.40	
	TOTAL				481.40	W
	Add 1 % Water charges on "W"				4.81	
	TOTAL				486.21	X
	Add GST on "X" (multiplying factor 0.2127)				103.42	
	TOTAL				589.63	Y
	Add 15% CPOH on "Y"				88.44	
	TOTAL				678.07	Z
	Add Cess @ 1% on "Z"				6.78	
	Cost of each				684.85	
	Say				684.85	

17.20.2 Black solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	358.00	358.00	
9988	Carriage of materials and fixing charges	L.S.	13.39	2.27	30.40	
	TOTAL				388.40	W
	Add 1 % Water charges on "W"				3.88	
	TOTAL				392.28	X
	Add GST on "X" (multiplying factor 0.2127)				83.44	
	TOTAL				475.72	Y
	Add 15% CPOH on "Y"				71.36	
	TOTAL				547.08	Z
	Add Cess @ 1% on "Z"				5.47	
	Cost of each				552.55	
	Say				552.55	

17.20.3 Coloured (other than black & white) solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7107	Coloured (other than black) solid P.V.C. seat in European W.C. pan	each	1.00	385.00	385.00	
9988	Carriage of materials and fixing charges	L.S.	13.39	2.27	30.40	
	TOTAL				415.40	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				4.15	
	TOTAL				419.55	X
	Add GST on "X" (multiplying factor 0.2127)				89.24	
	TOTAL				508.79	Y
	Add 15% CPOH on "Y"				76.32	
	TOTAL				585.11	Z
	Add Cess @ 1% on "Z"				5.85	
	Cost of each				590.96	
	Say				590.95	

17.22 Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1614	G.I. inlet connection	each	1.00	70.00	70.00	
9988	Carriage of materials and fixing charges	L.S.	13.39	2.27	30.40	
	TOTAL				100.40	W
	Add 1 % Water charges on "W"				1.00	
	TOTAL				101.40	X
	Add GST on "X" (multiplying factor 0.2127)				21.57	
	TOTAL				122.97	Y
	Add 15% CPOH on "Y"				18.45	
	TOTAL				141.42	Z
	Add Cess @ 1% on "Z"				1.41	
	Cost of each				142.83	
	Say				142.85	

17.22A Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7121	Bottle Trap	each	1.00	682.00	682.00	
9988	Carriage and sundries	L.S.	20.00	2.27	45.40	
	TOTAL				727.40	W
	Add 1 % Water charges on "W"				7.27	
	TOTAL				734.67	X
	Add GST on "X" (multiplying factor 0.2127)				156.26	
	TOTAL				890.93	Y
	Add 15% CPOH on "Y"				133.64	
	TOTAL				1024.57	Z
	Add Cess @ 1% on "Z"				10.25	
	Cost of each				1034.82	
	Say				1034.80	

17.22B Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge.
(a) 15 mm nominal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7122	CP Brass Single lever telephonic wall mixer of approved make	each	1.00	4800.00	4800.00	
9977	Carriage of material and fixing charges	L.S.	34.71	2.27	78.79	
	TOTAL				4878.79	W
	Add 1 % Water charges on "W"				48.79	
	TOTAL				4927.58	X
	Add GST on "X" (multiplying factor 0.2127)				1048.10	
	TOTAL				5975.68	Y
	Add 15% CPOH on "Y"				896.35	
	TOTAL				6872.03	Z
	Add Cess @ 1% on "Z"				68.72	
	Cost of each				6940.75	
	Say				6940.75	

17.23 Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1913	Vitreous china lipped front urinal	each	1.00	517.00	517.00	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	LABOUR					
0116	Fitter (grade 1)	day	0.38	897.00	340.86	
0114	Beldar	day	0.38	736.00	279.68	
	TOTAL				1159.08	W
	Add 1 % Water charges on "W"				11.59	
	TOTAL				1170.67	X
	Add GST on "X" (multiplying factor 0.2127)				249.00	
	TOTAL				1419.67	Y
	Add 15% CPOH on "Y"				212.95	
	TOTAL				1632.62	Z
	Add Cess @ 1% on "Z"				16.33	
	Cost of each				1648.95	
	Say				1648.95	

17.24 Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1915	Vitreous china squatting plate urinal	each	1.00	1158.00	1158.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Cement, sand and grit etc.	L.S.	10.79	2.27	24.49	
9977	Carriage of materials	L.S.	13.39	2.27	30.40	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				2845.89	W
	Add 1 % Water charges on "W"				28.46	
	TOTAL				2874.35	X
	Add GST on "X" (multiplying factor 0.2127)				611.37	
	TOTAL				3485.72	Y
	Add 15% CPOH on "Y"				522.86	
	TOTAL				4008.58	Z
	Add Cess @ 1% on "Z"				40.09	
	Cost of each				4048.67	
	Say				4048.65	

17.25 Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :

17.25.1 Flat back wash basin of size 630x450 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	798.00	798.00	
9999	Fixing charges	L.S.	53.82	2.27	122.17	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	TOTAL				941.71	W
	Add 1 % Water charges on "W"				9.42	
	TOTAL				951.13	X
	Add GST on "X" (multiplying factor 0.2127)				202.31	
	TOTAL				1153.44	Y
	Add 15% CPOH on "Y"				173.02	
	TOTAL				1326.46	Z
	Add Cess @ 1% on "Z"				13.26	
	Cost of each				1339.72	
	Say				1339.70	

17.25.2 Flat back wash basin of size 550x400 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	554.00	554.00	
9999	Fixing charges	L.S.	53.82	2.27	122.17	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	TOTAL				697.71	W
	Add 1 % Water charges on "W"				6.98	
	TOTAL				704.69	X
	Add GST on "X" (multiplying factor 0.2127)				149.89	
	TOTAL				854.58	Y
	Add 15% CPOH on "Y"				128.19	
	TOTAL				982.77	Z
	Add Cess @ 1% on "Z"				9.83	
	Cost of each				992.60	
	Say				992.60	

17.25.3 Angle back wash basin of size 600x480 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1949	Vitreous china angle back wash basin 600x480 mm	each	1.00	798.00	798.00	
9999	Fixing charges	L.S.	53.82	2.27	122.17	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	TOTAL				941.71	W
	Add 1 % Water charges on "W"				9.42	
	TOTAL				951.13	X
	Add GST on "X" (multiplying factor 0.2127)				202.31	
	TOTAL				1153.44	Y
	Add 15% CPOH on "Y"				173.02	
	TOTAL				1326.46	Z
	Add Cess @ 1% on "Z"				13.26	
	Cost of each				1339.72	
	Say				1339.70	

17.25.4 Angle back wash basin of size 400x400 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1950	Vitreous china angle back wash basin 400x400 mm	each	1.00	468.00	468.00	
9999	Fixing charges	L.S.	53.82	2.27	122.17	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	TOTAL				611.71	W
	Add 1 % Water charges on "W"				6.12	
	TOTAL				617.83	X
	Add GST on "X" (multiplying factor 0.2127)				131.41	
	TOTAL				749.24	Y
	Add 15% CPOH on "Y"				112.39	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				861.63	Z
	Add Cess @ 1% on "Z"				8.62	
	Cost of each				870.25	
	Say				870.25	

17.25.5 Flat back wash basin of size 450x300 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7004	Vitreous china flat back wash basin 450x300 mm	each	1.00	297.00	297.00	
9999	Fixing charges	L.S.	53.82	2.27	122.17	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	TOTAL				440.71	W
	Add 1 % Water charges on "W"				4.41	
	TOTAL				445.12	X
	Add GST on "X" (multiplying factor 0.2127)				94.68	
	TOTAL				539.80	Y
	Add 15% CPOH on "Y"				80.97	
	TOTAL				620.77	Z
	Add Cess @ 1% on "Z"				6.21	
	Cost of each				626.98	
	Say				627.00	

17.25.6 Surgeon type wash basin of size 660x460 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1133.00	1133.00	
9999	Fixing charges	L.S.	53.82	2.27	122.17	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	TOTAL				1276.71	W
	Add 1 % Water charges on "W"				12.77	
	TOTAL				1289.48	X
	Add GST on "X" (multiplying factor 0.2127)				274.27	
	TOTAL				1563.75	Y
	Add 15% CPOH on "Y"				234.56	
	TOTAL				1798.31	Z
	Add Cess @ 1% on "Z"				17.98	
	Cost of each				1816.29	
	Say				1816.30	

17.26 Providing and fixing kitchen sink including making all connections excluding cost of fittings.

17.26.1 White glazed fire clay sink of size 600x450x250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1863	Fire clay kitchen sink: 600x450x250 mm	each	1.00	1430.00	1430.00	
9999	Fixing charges	L.S.	40.43	2.27	91.78	
9977	Carriage of materials	L.S.	10.79	2.27	24.49	
	TOTAL				1546.27	W
	Add 1 % Water charges on "W"				15.46	
	TOTAL				1561.73	X
	Add GST on "X" (multiplying factor 0.2127)				332.18	
	TOTAL				1893.91	Y
	Add 15% CPOH on "Y"				284.09	
	TOTAL				2178.00	Z
	Add Cess @ 1% on "Z"				21.78	
	Cost of each				2199.78	
	Say				2199.80	

17.27 Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :

17.27.1 Size 450x300x150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1871	White vitreous china laboratry sink 450x300x150 mm	each	1.00	1650.00	1650.00	
9999	Fixing charges	L.S.	40.43	2.27	91.78	
9977	Carriage of materials	L.S.	10.79	2.27	24.49	
	TOTAL				1766.27	W
	Add 1 % Water charges on "W"				17.66	
	TOTAL				1783.93	X
	Add GST on "X" (multiplying factor 0.2127)				379.44	
	TOTAL				2163.37	Y
	Add 15% CPOH on "Y"				324.51	
	TOTAL				2487.88	Z
	Add Cess @ 1% on "Z"				24.88	
	Cost of each				2512.76	
	Say				2512.75	

17.27.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1872	White vitreous china laboratry sink 600x450x200 mm	each	1.00	2750.00	2750.00	
9999	Fixing charges	L.S.	40.43	2.27	91.78	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials	L.S.	10.79	2.27	24.49	
	TOTAL				2866.27	W
	Add 1 % Water charges on "W"				28.66	
	TOTAL				2894.93	X
	Add GST on "X" (multiplying factor 0.2127)				615.75	
	TOTAL				3510.68	Y
	Add 15% CPOH on "Y"				526.60	
	TOTAL				4037.28	Z
	Add Cess @ 1% on "Z"				40.37	
	Cost of each				4077.65	
	Say				4077.65	

17.28 Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.

17.28.1 Semi rigid pipe

17.28.1.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7117	Semi Rigid PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	27.00	27.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				73.04	W
	Add 1 % Water charges on "W"				0.73	
	TOTAL				73.77	X
	Add GST on "X" (multiplying factor 0.2127)				15.69	
	TOTAL				89.46	Y
	Add 15% CPOH on "Y"				13.42	
	TOTAL				102.88	Z
	Add Cess @ 1% on "Z"				1.03	
	Cost of each				103.91	
	Say				103.90	

17.28.1.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7118	Semi Rigid PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	36.00	36.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				82.04	W
	Add 1 % Water charges on "W"				0.82	
	TOTAL				82.86	X
	Add GST on "X" (multiplying factor 0.2127)				17.62	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				100.48	Y
	Add 15% CPOH on "Y"				15.07	
	TOTAL				115.55	Z
	Add Cess @ 1% on "Z"				1.16	
	Cost of each				116.71	
	Say				116.70	

17.28.2 Flexible pipe

17.28.2.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7119	Flexible (coil shaped) PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	38.00	38.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				84.04	W
	Add 1 % Water charges on "W"				0.84	
	TOTAL				84.88	X
	Add GST on "X" (multiplying factor 0.2127)				18.05	
	TOTAL				102.93	Y
	Add 15% CPOH on "Y"				15.44	
	TOTAL				118.37	Z
	Add Cess @ 1% on "Z"				1.18	
	Cost of each				119.55	
	Say				119.55	

17.28.2.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7120	Flexible (coil shaped) PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	38.00	38.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				84.04	W
	Add 1 % Water charges on "W"				0.84	
	TOTAL				84.88	X
	Add GST on "X" (multiplying factor 0.2127)				18.05	
	TOTAL				102.93	Y
	Add 15% CPOH on "Y"				15.44	
	TOTAL				118.37	Z
	Add Cess @ 1% on "Z"				1.18	
	Cost of each				119.55	
	Say				119.55	

17.29 Providing and fixing 100 mm sand cast Iron grating for gully trap.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1369	S.C.I. gully or nahani grating 100 mm dia	each	1.00	28.00	28.00	
9988	Carriage of materials and fixing charges	L.S.	4.16	2.27	9.44	
	TOTAL				37.44	W
	Add 1 % Water charges on "W"				0.37	
	TOTAL				37.81	X
	Add GST on "X" (multiplying factor 0.2127)				8.04	
	TOTAL				45.85	Y
	Add 15% CPOH on "Y"				6.88	
	TOTAL				52.73	Z
	Add Cess @ 1% on "Z"				0.53	
	Cost of each				53.26	
	Say				53.25	

17.30 Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1350	Mosquito proof coupling of approved design	each	1.00	35.00	35.00	
9988	Carriage of materials and fixing charges	L.S.	1.82	2.27	4.13	
	TOTAL				39.13	W
	Add 1 % Water charges on "W"				0.39	
	TOTAL				39.52	X
	Add GST on "X" (multiplying factor 0.2127)				8.41	
	TOTAL				47.93	Y
	Add 15% CPOH on "Y"				7.19	
	TOTAL				55.12	Z
	Add Cess @ 1% on "Z"				0.55	
	Cost of each				55.67	
	Say				55.65	

17.31 Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1392	Mirror of superior make glass 60x45 cm	each	1.00	450.00	450.00	
7116	Hard board 6 mm thick	sqm	0.27	124.00	33.48	
	600x450 mm Wooden cleats					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	4.00	40.85	163.40	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	177.00	7.08	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
9999	Sundries	L.S.	1.43	2.27	3.25	
	LABOUR					
0112	Carpenter 2nd class	day	0.33	816.00	269.28	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				1178.81	W
	Add 1 % Water charges on "W-A"				10.15	
	TOTAL				1188.96	X
	Add GST on "X-A" (multiplying factor 0.2127)				218.14	
	TOTAL				1407.10	Y
	Add 15% CPOH on "Y-A"				186.56	
	TOTAL				1593.66	Z
	Add Cess @ 1% on "Z-A"				14.30	
	Cost of each				1607.96	
	Say				1607.95	

17.32 Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :

17.32.1 Circular shape 450 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7112	Circular shape 450 mm dia Mirror with Plastic moulded frame Hard board 0.45x0.45 = 0.2025 sqm Add wastage @ 10% = 0.0203 sqm = 0.2228 sqm say 0.22sqm	each	1.00	436.00	436.00	
7116	Hard board 6 mm thick	sqm	0.22	124.00	27.28	
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	24.00	48.00	
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	177.00	3.54	
9999	Sundries	L.S.	1.43	2.27	3.25	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.33	816.00	269.28	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				1039.67	W
	Add 1 % Water charges on "W"				10.40	
	TOTAL				1050.07	X
	Add GST on "X" (multiplying factor 0.2127)				223.35	
	TOTAL				1273.42	Y
	Add 15% CPOH on "Y"				191.01	
	TOTAL				1464.43	Z
	Add Cess @ 1% on "Z"				14.64	
	Cost of each				1479.07	
	Say				1479.05	

17.32.2 Rectangular shape 453x357 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7113	Rectangular shape 453x357 mm Mirror with Plastic moulded frame Hard board 0.453x0.357 = 0.1617 sqm	each	1.00	307.00	307.00	
	Add wastage @ 10% = 0.0162 sqm					
	= 0.1779 sqm say 0.18 sqm					
7116	Hard board 6 mm thick	sqm	0.18	124.00	22.32	
7048	Rawl plug 50 mm (designation 10 no.)	each	4.00	24.00	96.00	
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	177.00	7.08	
9999	Sundries	L.S.	1.43	2.27	3.25	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.33	816.00	269.28	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				957.25	W
	Add 1 % Water charges on “W”				9.57	
	TOTAL				966.82	X
	Add GST on “X” (multiplying factor 0.2127)				205.64	
	TOTAL				1172.46	Y
	Add 15% CPOH on “Y”				175.87	
	TOTAL				1348.33	Z
	Add Cess @ 1% on “Z”				13.48	
	Cost of each				1361.81	
	Say				1361.80	

17.32.3 Oval shape 450x350 mm (outer dimensions)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7114	Ovel shape 450x350 mm (outer dimensions) Mirror with Plastic moulded frame Hard board 0.45x0.35=0.1575 sqm	each	1.00	319.00	319.00	
	Add wastage @ 10% = 0.0158 sqm					
	= 0.1733 sqm say 0.17 sqm					
7116	Hard board 6 mm thick	sqm	0.17	124.00	21.08	
7048	Rawl plug 50 mm (designation 10 no.)	each	4.00	24.00	96.00	
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	177.00	7.08	
9999	Sundries	L.S.	1.43	2.27	3.25	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.33	816.00	269.28	
0114	Beldar	day	0.33	736.00	242.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				968.01	W
	Add 1 % Water charges on "W"				9.68	
	TOTAL				977.69	X
	Add GST on "X" (multiplying factor 0.2127)				207.95	
	TOTAL				1185.64	Y
	Add 15% CPOH on "Y"				177.85	
	TOTAL				1363.49	Z
	Add Cess @ 1% on "Z"				13.63	
	Cost of each				1377.12	
	Say				1377.10	

17.32.4 Rectangular shape 1500x450 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7115	Rectangular shape 1500x450 mm Mirror with Plastic moulded frame Hard board 1.50x0.45 = 0.675 sqm Add wastage @ 10% = 0.0675 sqm = 0.7425 sqm say 0.74sqm	each	1.00	700.00	700.00	
7116	Hard board 6 mm thick	sqm	0.74	124.00	91.76	
7048	Rawl plug 50 mm (designation 10 no.)	each	6.00	24.00	144.00	
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	177.00	10.62	
9999	Sundries	L.S.	1.43	2.27	3.25	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.33	816.00	269.28	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				1471.23	W
	Add 1 % Water charges on "W"				14.71	
	TOTAL				1485.94	X
	Add GST on "X" (multiplying factor 0.2127)				316.06	
	TOTAL				1802.00	Y
	Add 15% CPOH on "Y"				270.30	
	TOTAL				2072.30	Z
	Add Cess @ 1% on "Z"				20.72	
	Cost of each				2093.02	
	Say				2093.00	

17.33 Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3228	600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	1.00	306.00	306.00	
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	24.00	48.00	
0586	Chromium plated Brass screws 40 mm	100 Nos	0.04	254.00	10.16	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	816.00	204.00	
0114	Beldar	day	0.25	736.00	184.00	
	TOTAL				761.60	W
	Add 1 % Water charges on "W"				7.62	
	TOTAL				769.22	X
	Add GST on "X" (multiplying factor 0.2127)				163.61	
	TOTAL				932.83	Y
	Add 15% CPOH on "Y"				139.92	
	TOTAL				1072.75	Z
	Add Cess @ 1% on "Z"				10.73	
	Cost of each				1083.48	
	Say				1083.50	

17.34 Providing and fixing toilet paper holder :

17.34.1 C.P. brass

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1889	C.P.brass toilet paper holder of standard size	each	1.00	308.00	308.00	
	Wooden cleats					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	40.85	81.70	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	177.00	3.54	
9977	Carriage of materials	L.S.	4.29	2.27	9.74	
	LABOUR					
0112	Carpenter 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				589.22	W
	Add 1 % Water charges on "W-A"				5.08	
	TOTAL				594.30	X
	Add GST on "X-A" (multiplying factor 0.2127)				109.03	
	TOTAL				703.33	Y
	Add 15% CPOH on "Y-A"				93.24	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				796.57	Z
	Add Cess @ 1% on "Z-A"				7.15	
	Cost of each				803.72	
	Say				803.70	

17.34.2 Vitreous china

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one no.					
	MATERIAL					
3749	Vitreous china toilet paper holder of standard size	each	1.00	120.00	120.00	
	Wooden cleats					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	40.85	81.70	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	177.00	10.62	
9977	Carriage of materials	L.S.	4.29	2.27	9.74	
	LABOUR					
0112	Carpenter 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				408.30	W
	Add 1 % Water charges on "W-A"				3.27	
	TOTAL				411.57	X
	Add GST on "X-A" (multiplying factor 0.2127)				70.16	
	TOTAL				481.73	Y
	Add 15% CPOH on "Y-A"				60.00	
	TOTAL				541.73	Z
	Add Cess @ 1% on "Z-A"				4.60	
	Cost of each				546.33	
	Say				546.35	

17.35 Providing and fixing soil, waste and vent pipes :

17.35.1 100 mm dia

17.35.1.1 Sand cast iron S&S pipe as per IS: 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 17.37 m					
	(1.8mx10)-(9x0.07m) = 17.37 m					
	MATERIAL					
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	10.50	1200.00	12600.00	
9999	Scaffolding	L.S.	80.73	2.27	183.26	
9977	Carriage of materials	L.S.	53.82	2.27	122.17	
	LABOUR					
0116	Fitter (grade 1)	day	0.42	897.00	376.74	
0100	Bandhani	day	0.21	816.00	171.36	
0114	Beldar	day	0.83	736.00	610.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				14064.41	W
	Add 1 % Water charges on "W"				140.64	
	TOTAL				14205.05	X
	Add GST on "X" (multiplying factor 0.2127)				3021.41	
	TOTAL				17226.46	Y
	Add 15% CPOH on "Y"				2583.97	
	TOTAL				19810.43	Z
	Add Cess @ 1% on "Z"				198.10	
	Cost for 17.37 m pipe				20008.53	
	Cost per metre				1151.90	
	Say				1151.90	

17.35.1.2 Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16.87 m					
	(1.75mx10)-(9x0.07m) = 16.87 m					
	MATERIAL					
3620	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:100mm dia	each	10.50	1194.00	12537.00	
9999	Scaffolding	L.S.	80.73	2.27	183.26	
9977	Carriage of materials	L.S.	53.82	2.27	122.17	
	LABOUR					
0116	Fitter (grade 1)	day	0.42	897.00	376.74	
0100	Bandhani	day	0.21	816.00	171.36	
0114	Beldar	day	0.83	736.00	610.88	
	TOTAL				14001.41	W
	Add 1 % Water charges on "W"				140.01	
	TOTAL				14141.42	X
	Add GST on "X" (multiplying factor 0.2127)				3007.88	
	TOTAL				17149.30	Y
	Add 15% CPOH on "Y"				2572.40	
	TOTAL				19721.70	Z
	Add Cess @ 1% on "Z"				197.22	
	Cost for 16.87 m pipe				19918.92	
	Cost per metre				1180.73	
	Say				1180.75	

17.35.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 18.00 m (6 x 3.00 m)					
	MATERIAL					
7621	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe) i/c (3% wastage)	metre	18.54	719.00	13330.26	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Scaffolding	L.S.	80.73	2.27	183.26	
9977	Carriage of materials	L.S.	53.82	2.27	122.17	
	LABOUR					
0116	Fitter (grade 1)	day	0.42	897.00	376.74	
0100	Bandhani	day	0.21	816.00	171.36	
0114	Beldar	day	0.83	736.00	610.88	
	TOTAL				14794.67	W
	Add 1 % Water charges on “W”				147.95	
	TOTAL				14942.62	X
	Add GST on “X” (multiplying factor 0.2127)				3178.30	
	TOTAL				18120.92	Y
	Add 15% CPOH on “Y”				2718.14	
	TOTAL				20839.06	Z
	Add Cess @ 1% on “Z”				208.39	
	Cost of 18.00 metre				21047.45	
	Cost of 1 metre				1169.30	
	Say				1169.30	

17.35.2 75 mm diameter :

17.35.2.1 Sand cast iron S&S pipe as per IS: 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 17.42 m					
	(1.8mx10)-(9x0.065m) = 17.415 m say 17.42 m					
	MATERIAL					
1616	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long:75mm dia	each	10.50	1100.00	11550.00	
9999	Scaffolding	L.S.	80.73	2.27	183.26	
9977	Carriage of materials	L.S.	40.38	2.27	91.66	
	LABOUR					
0116	Fitter (grade 1)	day	0.35	897.00	313.95	
0100	Bandhani	day	0.17	816.00	138.72	
0114	Beldar	day	0.70	736.00	515.20	
	TOTAL				12792.79	W
	Add 1 % Water charges on “W”				127.93	
	TOTAL				12920.72	X
	Add GST on “X” (multiplying factor 0.2127)				2748.24	
	TOTAL				15668.96	Y
	Add 15% CPOH on “Y”				2350.34	
	TOTAL				18019.30	Z
	Add Cess @ 1% on “Z”				180.19	
	Cost for 17.42 m pipe				18199.49	
	Cost per metre				1044.75	
	Say				1044.75	

17.35.2.2 Centrifugally cast (spun) iron socketed pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16.92 m					
	(1.75mx10)-(9x0.065m) = 16.915 m. say 16.92 m					
	MATERIAL					
3621	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:75mm dia including 5% allowance for wastage	each	10.50	1225.00	12862.50	
9999	Scaffolding	L.S.	80.73	2.27	183.26	
9977	Carriage of materials	L.S.	40.38	2.27	91.66	
	LABOUR					
0116	Fitter (grade 1)	day	0.35	897.00	313.95	
0100	Bandhani	day	0.17	816.00	138.72	
0114	Beldar	day	0.70	736.00	515.20	
	TOTAL				14105.29	W
	Add 1 % Water charges on “W”				141.05	
	TOTAL				14246.34	X
	Add GST on “X” (multiplying factor 0.2127)				3030.20	
	TOTAL				17276.54	Y
	Add 15% CPOH on “Y”				2591.48	
	TOTAL				19868.02	Z
	Add Cess @ 1% on “Z”				198.68	
	Cost for 16.92 m pipe				20066.70	
	Cost per metre				1185.98	
	Say				1186.00	

17.35.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 18.00 m (6 x 3.00 m)					
	MATERIAL					
7622	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 75 mm dia (3000 mm length pipe) i/c (3% wastage)	metre	18.54	591.00	10957.14	
9999	Scaffolding	L.S.	80.73	2.27	183.26	
9977	Carriage of materials	L.S.	40.38	2.27	91.66	
	LABOUR					
0116	Fitter (grade 1)	day	0.35	897.00	313.95	
0100	Bandhani	day	0.17	816.00	138.72	
0114	Beldar	day	0.70	736.00	515.20	
	TOTAL				12199.93	W
	Add 1 % Water charges on “W”				122.00	
	TOTAL				12321.93	X
	Add GST on “X” (multiplying factor 0.2127)				2620.87	
	TOTAL				14942.80	Y
	Add 15% CPOH on “Y”				2241.42	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				17184.22	Z
	Add Cess @ 1% on "Z"				171.84	
	Cost of 18.00 metre				17356.06	
	Cost of 1 metre				964.23	
	Say				964.25	

17.36 Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :

17.36.1 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 4 joints					
	MATERIAL					
9999	Cement mortar, spun yarn etc.	L.S.	6.89	2.27	15.64	
	LABOUR					
0116	Fitter (grade 1)	day	0.28	897.00	251.16	
0114	Beldar	day	0.28	736.00	206.08	
	TOTAL				472.88	W
	Add 1 % Water charges on "W"				4.73	
	TOTAL				477.61	X
	Add GST on "X" (multiplying factor 0.2127)				101.59	
	TOTAL				579.20	Y
	Add 15% CPOH on "Y"				86.88	
	TOTAL				666.08	Z
	Add Cess @ 1% on "Z"				6.66	
	Cost of 4 joints				672.74	
	Cost of 1 joint				168.19	
	Say				168.20	

17.36.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 4 joints					
	MATERIAL					
9999	Cement mortar, spun yarn etc.	L.S.	8.06	2.27	18.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				557.19	W
	Add 1 % Water charges on "W"				5.57	
	TOTAL				562.76	X
	Add GST on "X" (multiplying factor 0.2127)				119.70	
	TOTAL				682.46	Y
	Add 15% CPOH on "Y"				102.37	
	TOTAL				784.83	Z
	Add Cess @ 1% on "Z"				7.85	
	Cost of 4 joints				792.68	
	Cost of 1 joint				198.17	
	Say				198.15	

17.37 Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :

17.37.1 For 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 nos.					
	MATERIAL					
1331	M.S.Holder bat clamp of approved design for 100 mm S.C.I. pipe	each	50.000	27.00	1350.00	
9977	Carriage of bat clamps	L.S.	24.700	2.27	56.07	
	LABOUR					
0116	Fitter (grade 1)	day	1.250	897.00	1121.25	
0124	Mason 2nd class	day	7.500	816.00	6120.00	
0114	Beldar	day	5.000	736.00	3680.00	
9999	Sundries	L.S.	71.500	2.27	162.31	
	C.C. Black 50x0.1x0.1x0.1 = 0.05 cum					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.033	1425.00	47.03	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.011	1400.00	15.40	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.044	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.022	1450.00	31.90	
2203	Carriage of Coarse sand	cum	0.022	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5156.00	82.50	
2209	Carriage of Cement	tonne	0.016	0.00	0.00	
0114	Beldar	day	0.045	736.00	33.12	
0115	Coolie	day	0.032	736.00	23.55	
0101	Bhisti	day	0.014	816.00	11.42	
0123	Mason 1st class	day	0.003	897.00	2.69	
0124	Mason 2nd class	day	0.003	816.00	2.45	
0128	Mate	day	0.002	816.00	1.63	
9999	Hire charges of machine etc.	L.S.	2.600	2.27	5.90	
9999	Sundries	L.S.	1.300	2.27	2.95	
9999	Sundries	L.S.	1.300	2.27	2.95	
	TOTAL				12753.12	W
	Add 1 % Water charges on “W”				127.53	
	TOTAL				12880.65	X
	Add GST on “X” (multiplying factor 0.2127)				2739.71	
	TOTAL				15620.36	Y
	Add 15% CPOH on “Y”				2343.05	
	TOTAL				17963.41	Z
	Add Cess @ 1% on “Z”				179.63	
	Cost of 50 bat clamps				18143.04	
	Cost of each				362.86	
	Say				362.85	

17.37.2 For 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 nos.					
	MATERIAL					
1332	M.S.Holder bat clamp of approved design for75 mm S.C.I. pipe	each	50.000	25.00	1250.00	
9977	Carriage of bat clamps	L.S.	24.700	2.27	56.07	
	LABOUR					
0116	Fitter (grade 1)	day	1.250	897.00	1121.25	
0124	Mason 2nd class	day	7.500	816.00	6120.00	
0114	Beldar	day	5.000	736.00	3680.00	
9999	Sundries	L.S.	71.500	2.27	162.31	
	C.C. Black 50x0.1x0.1x0.1 = 0.05 cum					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.033	1425.00	47.03	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.011	1400.00	15.40	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.044	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.022	1450.00	31.90	
2203	Carriage of Coarse sand	cum	0.022	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5156.00	82.50	
2209	Carriage of Cement	tonne	0.016	0.00	0.00	
0114	Beldar	day	0.045	736.00	33.12	
0115	Coolie	day	0.032	736.00	23.55	
0101	Bhisti	day	0.014	816.00	11.42	
0123	Mason 1st class	day	0.003	897.00	2.69	
0124	Mason 2nd class	day	0.003	816.00	2.45	
0128	Mate	day	0.002	816.00	1.63	
9999	Hire charges of machine etc.	L.S.	2.600	2.27	5.90	
9999	Sundries	L.S.	1.300	2.27	2.95	
9999	Sundries	L.S.	1.300	2.27	2.95	
	TOTAL				12653.12	W
	Add 1 % Water charges on “W”				126.53	
	TOTAL				12779.65	X
	Add GST on “X” (multiplying factor 0.2127)				2718.23	
	TOTAL				15497.88	Y
	Add 15% CPOH on “Y”				2324.68	
	TOTAL				17822.56	Z
	Add Cess @ 1% on “Z”				178.23	
	Cost of 50 bat clamps				18000.79	
	Cost of each				360.02	
	Say				360.00	

17.38 Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.

17.38.1 100 mm dia

17.38.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1625	S.C.I. bend with access door 100mm dia	each	1.00	370.00	370.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				420.69	W
	Add 1 % Water charges on "W"				4.21	
	TOTAL				424.90	X
	Add GST on "X" (multiplying factor 0.2127)				90.38	
	TOTAL				515.28	Y
	Add 15% CPOH on "Y"				77.29	
	TOTAL				592.57	Z
	Add Cess @ 1% on "Z"				5.93	
	Cost of each				598.50	
	Say				598.50	

17.38.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3624	S.C.I. S&S bends with access door 100mm dia	each	1.00	445.00	445.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				495.69	W
	Add 1 % Water charges on "W"				4.96	
	TOTAL				500.65	X
	Add GST on "X" (multiplying factor 0.2127)				106.49	
	TOTAL				607.14	Y
	Add 15% CPOH on "Y"				91.07	
	TOTAL				698.21	Z
	Add Cess @ 1% on "Z"				6.98	
	Cost of each				705.19	
	Say				705.20	

17.38.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7639	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per IS IS:15905	each	1.00	348.00	348.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				398.69	W
	Add 1 % Water charges on "W"				3.99	
	TOTAL				402.68	X
	Add GST on "X" (multiplying factor 0.2127)				85.65	
	TOTAL				488.33	Y
	Add 15% CPOH on "Y"				73.25	
	TOTAL				561.58	Z
	Add Cess @ 1% on "Z"				5.62	
	Cost of each				567.20	
	Say				567.20	

17.38.2 75 mm dia

17.38.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1624	S.C.I. bend with access door 75mm dia	each	1.00	310.00	310.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				352.49	W
	Add 1 % Water charges on "W"				3.52	
	TOTAL				356.01	X
	Add GST on "X" (multiplying factor 0.2127)				75.72	
	TOTAL				431.73	Y
	Add 15% CPOH on "Y"				64.76	
	TOTAL				496.49	Z
	Add Cess @ 1% on "Z"				4.96	
	Cost of each				501.45	
	Say				501.45	

17.38.2.2 Sand cast iron S&S as per IS- 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3625	S.C.I. S&S bends with access door75mm dia	each	1.00	325.00	325.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				367.49	W
	Add 1 % Water charges on "W"				3.67	
	TOTAL				371.16	X
	Add GST on "X" (multiplying factor 0.2127)				78.95	
	TOTAL				450.11	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				67.52	
	TOTAL				517.63	Z
	Add Cess @ 1% on "Z"				5.18	
	Cost of each				522.81	
	Say				522.80	

17.38.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7640	Hubless centrifugally cast (spun) iron bend with access door - 75 mm dia as per IS 15905 including cost of bolts & nuts.	each	1.00	252.00	252.00	
1373	Rubber insertions for 80 mm dia pipe joints 3mm thick	each	1.00	18.00	18.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				294.49	W
	Add 1 % Water charges on "W"				2.94	
	TOTAL				297.43	X
	Add GST on "X" (multiplying factor 0.2127)				63.26	
	TOTAL				360.69	Y
	Add 15% CPOH on "Y"				54.10	
	TOTAL				414.79	Z
	Add Cess @ 1% on "Z"				4.15	
	Cost of each				418.94	
	Say				418.95	

17.39 Providing and fixing plain bend of required degree.

17.39.1 100 mm dia

17.39.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1621	S.C.I. plain bend 100 mm dia	each	1.00	300.00	300.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				330.69	W
	Add 1 % Water charges on "W"				3.31	
	TOTAL				334.00	X
	Add GST on "X" (multiplying factor 0.2127)				71.04	
	TOTAL				405.04	Y
	Add 15% CPOH on "Y"				60.76	
	TOTAL				465.80	Z
	Add Cess @ 1% on "Z"				4.66	
	Cost of each				470.46	
	Say				470.45	

17.39.1.2 Sand cast iron S&S as per IS : 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3628	S.C.I. S&S bend100mm dia	each	1.00	370.00	370.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				400.69	W
	Add 1 % Water charges on "W"				4.01	
	TOTAL				404.70	X
	Add GST on "X" (multiplying factor 0.2127)				86.08	
	TOTAL				490.78	Y
	Add 15% CPOH on "Y"				73.62	
	TOTAL				564.40	Z
	Add Cess @ 1% on "Z"				5.64	
	Cost of each				570.04	
	Say				570.05	

17.39.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7623	Hubless centrifugally cast (spun) iron plain bend as per IS 15905- 100 mm dia	each	1.00	228.00	228.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				258.69	W
	Add 1 % Water charges on "W"				2.59	
	TOTAL				261.28	X
	Add GST on "X" (multiplying factor 0.2127)				55.57	
	TOTAL				316.85	Y
	Add 15% CPOH on "Y"				47.53	
	TOTAL				364.38	Z
	Add Cess @ 1% on "Z"				3.64	
	Cost of each				368.02	
	Say				368.00	

17.39.2 75 mm dia

17.39.2.1 Sand cast iron S&S as per IS -1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1620	S.C.I. plain bend 75 mm dia	each	1.00	240.00	240.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				264.49	W
	Add 1 % Water charges on "W"				2.64	
	TOTAL				267.13	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				56.82	
	TOTAL				323.95	Y
	Add 15% CPOH on "Y"				48.59	
	TOTAL				372.54	Z
	Add Cess @ 1% on "Z"				3.73	
	Cost of each				376.27	
	Say				376.25	

17.39.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3629	S.C.I. S&S bend75mm dia	each	1.00	250.00	250.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				274.49	W
	Add 1 % Water charges on "W"				2.74	
	TOTAL				277.23	X
	Add GST on "X" (multiplying factor 0.2127)				58.97	
	TOTAL				336.20	Y
	Add 15% CPOH on "Y"				50.43	
	TOTAL				386.63	Z
	Add Cess @ 1% on "Z"				3.87	
	Cost of each				390.50	
	Say				390.50	

17.39.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7624	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 75 mm dia	each	1.00	153.00	153.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				177.49	W
	Add 1 % Water charges on "W"				1.77	
	TOTAL				179.26	X
	Add GST on "X" (multiplying factor 0.2127)				38.13	
	TOTAL				217.39	Y
	Add 15% CPOH on "Y"				32.61	
	TOTAL				250.00	Z
	Add Cess @ 1% on "Z"				2.50	
	Cost of each				252.50	
	Say				252.50	

17.40 Providing and fixing heel rest sanitary bend

17.40.1 100 mm dia

17.40.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1667	Sand cast iron heel rest bend 100mm dia	each	1.00	380.00	380.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				410.69	W
	Add 1 % Water charges on "W"				4.11	
	TOTAL				414.80	X
	Add GST on "X" (multiplying factor 0.2127)				88.23	
	TOTAL				503.03	Y
	Add 15% CPOH on "Y"				75.45	
	TOTAL				578.48	Z
	Add Cess @ 1% on "Z"				5.78	
	Cost of each				584.26	
	Say				584.25	

17.40.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3634	S.C.I. S&S heel rest sanitary bend 100mm dia	each	1.00	355.00	355.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				385.69	W
	Add 1 % Water charges on "W"				3.86	
	TOTAL				389.55	X
	Add GST on "X" (multiplying factor 0.2127)				82.86	
	TOTAL				472.41	Y
	Add 15% CPOH on "Y"				70.86	
	TOTAL				543.27	Z
	Add Cess @ 1% on "Z"				5.43	
	Cost of each				548.70	
	Say				548.70	

17.40.2 75 mm dia

17.40.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1666	Sand cast iron heel rest bend75mm dia	each	1.00	320.00	320.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				344.49	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				3.44	
	TOTAL				347.93	X
	Add GST on "X" (multiplying factor 0.2127)				74.00	
	TOTAL				421.93	Y
	Add 15% CPOH on "Y"				63.29	
	TOTAL				485.22	Z
	Add Cess @ 1% on "Z"				4.85	
	Cost of each				490.07	
	Say				490.05	

17.40.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3635	S.C.I. S&S heel rest sanitary bend 75mm dia	each	1.00	330.00	330.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				354.49	W
	Add 1 % Water charges on "W"				3.54	
	TOTAL				358.03	X
	Add GST on "X" (multiplying factor 0.2127)					
	TOTAL				434.18	Y
	Add 15% CPOH on "Y"				65.13	
	TOTAL				499.31	Z
	Add Cess @ 1% on "Z"				4.99	
	Cost of each				504.30	
	Say				504.30	

17.41 Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :

17.41.1 100x100x100x100 mm

17.41.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1637	S.C.I. double equal junctions 100x100x100x100 mm dia with access door.	each	1.00	750.00	750.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.39	2.27	30.40	
	TOTAL				800.40	W
	Add 1 % Water charges on "W"				8.00	
	TOTAL				808.40	X
	Add GST on "X" (multiplying factor 0.2127)				171.95	
	TOTAL				980.35	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				147.05	
	TOTAL				1127.40	Z
	Add Cess @ 1% on "Z"				11.27	
	Cost of each				1138.67	
	Say				1138.65	

17.41.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3654	S.C.I. S&S double equal junctions with access door 100x100x100x100 mm.	each	1.00	725.00	725.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.39	2.27	30.40	
	TOTAL				775.40	W
	Add 1 % Water charges on "W"				7.75	
	TOTAL				783.15	X
	Add GST on "X" (multiplying factor 0.2127)				166.58	
	TOTAL				949.73	Y
	Add 15% CPOH on "Y"				142.46	
	TOTAL				1092.19	Z
	Add Cess @ 1% on "Z"				10.92	
	Cost of each				1103.11	
	Say				1103.10	

17.41.2 75x75x75x75 mm

17.41.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1636	S.C.I. double equal junctions75x75x75x75 mm dia with access door.	each	1.00	550.00	550.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				592.49	W
	Add 1 % Water charges on "W"				5.92	
	TOTAL				598.41	X
	Add GST on "X" (multiplying factor 0.2127)				127.28	
	TOTAL				725.69	Y
	Add 15% CPOH on "Y"				108.85	
	TOTAL				834.54	Z
	Add Cess @ 1% on "Z"				8.35	
	Cost of each				842.89	
	Say				842.90	

17.41.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3655	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm.	each	1.00	580.00	580.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				622.49	W
	Add 1 % Water charges on “W”				6.22	
	TOTAL				628.71	X
	Add GST on “X” (multiplying factor 0.2127)				133.73	
	TOTAL				762.44	Y
	Add 15% CPOH on “Y”				114.37	
	TOTAL				876.81	Z
	Add Cess @ 1% on “Z”				8.77	
	Cost of each				885.58	
	Say				885.60	

17.42 Providing and fixing double equal plain junction of required degree.

17.42.1 100x100x100x100 mm

17.42.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1634	S.C.I. plain double equal junctions 100x100x100x100 mm dia	each	1.00	630.00	630.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				660.69	W
	Add 1 % Water charges on “W”				6.61	
	TOTAL				667.30	X
	Add GST on “X” (multiplying factor 0.2127)				141.93	
	TOTAL				809.23	Y
	Add 15% CPOH on “Y”				121.38	
	TOTAL				930.61	Z
	Add Cess @ 1% on “Z”				9.31	
	Cost of each				939.92	
	Say				939.90	

17.42.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3650	S.C.I. S&S double equal junctions 100x100x100x100 mm	each	1.00	725.00	725.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				755.69	W
	Add 1 % Water charges on "W"				7.56	
	TOTAL				763.25	X
	Add GST on "X" (multiplying factor 0.2127)				162.34	
	TOTAL				925.59	Y
	Add 15% CPOH on "Y"				138.84	
	TOTAL				1064.43	Z
	Add Cess @ 1% on "Z"				10.64	
	Cost of each				1075.07	
	Say				1075.05	

17.42.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7625	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 100x100x100x100 mm dia	each	1.00	504.00	504.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				534.69	W
	Add 1 % Water charges on "W"				5.35	
	TOTAL				540.04	X
	Add GST on "X" (multiplying factor 0.2127)				114.87	
	TOTAL				654.91	Y
	Add 15% CPOH on "Y"				98.24	
	TOTAL				753.15	Z
	Add Cess @ 1% on "Z"				7.53	
	Cost of each				760.68	
	Say				760.70	

17.42.2 75x75x75x75 mm

17.42.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1633	S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	1.00	415.00	415.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				439.49	W
	Add 1 % Water charges on "W"				4.39	
	TOTAL				443.88	X
	Add GST on "X" (multiplying factor 0.2127)				94.41	
	TOTAL				538.29	Y
	Add 15% CPOH on "Y"				80.74	
	TOTAL				619.03	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				6.19	
	Cost of each				625.22	
	Say				625.20	

17.42.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3651	S.C.I. S&S double equal junctions 75x75x75x75 mm	each	1.00	540.00	540.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				564.49	W
	Add 1 % Water charges on "W"				5.64	
	TOTAL				570.13	X
	Add GST on "X" (multiplying factor 0.2127)				121.27	
	TOTAL				691.40	Y
	Add 15% CPOH on "Y"				103.71	
	TOTAL				795.11	Z
	Add Cess @ 1% on "Z"				7.95	
	Cost of each				803.06	
	Say				803.05	

17.42.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7626	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 75x75x75x75 mm dia	each	1.00	270.00	270.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				294.49	W
	Add 1 % Water charges on "W"				2.94	
	TOTAL				297.43	X
	Add GST on "X" (multiplying factor 0.2127)				63.26	
	TOTAL				360.69	Y
	Add 15% CPOH on "Y"				54.10	
	TOTAL				414.79	Z
	Add Cess @ 1% on "Z"				4.15	
	Cost of each				418.94	
	Say				418.95	

17.43 Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.

17.43.1 100x100x100 mm

17.43.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1631	S.C.I. single equal junctions 100x100x100 mm dia with access door.	each	1.00	460.00	460.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				510.69	W
	Add 1 % Water charges on "W"				5.11	
	TOTAL				515.80	X
	Add GST on "X" (multiplying factor 0.2127)				109.71	
	TOTAL				625.51	Y
	Add 15% CPOH on "Y"				93.83	
	TOTAL				719.34	Z
	Add Cess @ 1% on "Z"				7.19	
	Cost of each				726.53	
	Say				726.55	

17.43.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3644	S.C.I. S&S single equal junctions with access door 100x100x100 mm	each	1.00	600.00	600.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				650.69	W
	Add 1 % Water charges on "W"				6.51	
	TOTAL				657.20	X
	Add GST on "X" (multiplying factor 0.2127)				139.79	
	TOTAL				796.99	Y
	Add 15% CPOH on "Y"				119.55	
	TOTAL				916.54	Z
	Add Cess @ 1% on "Z"				9.17	
	Cost of each				925.71	
	Say				925.70	

17.43.2 75x75x75 mm

17.43.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1630	S.C.I. single equal junctions75x75x75 mm dia with access door.	each	1.00	400.00	400.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				442.49	W
	Add 1 % Water charges on “W”				4.42	
	TOTAL				446.91	X
	Add GST on “X” (multiplying factor 0.2127)				95.06	
	TOTAL				541.97	Y
	Add 15% CPOH on “Y”				81.30	
	TOTAL				623.27	Z
	Add Cess @ 1% on “Z”				6.23	
	Cost of each				629.50	
	Say				629.50	

17.43.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3645	S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	1.00	425.00	425.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				467.49	W
	Add 1 % Water charges on “W”				4.67	
	TOTAL				472.16	X
	Add GST on “X” (multiplying factor 0.2127)				100.43	
	TOTAL				572.59	Y
	Add 15% CPOH on “Y”				85.89	
	TOTAL				658.48	Z
	Add Cess @ 1% on “Z”				6.58	
	Cost of each				665.06	
	Say				665.05	

17.44 Providing and fixing single equal plain junction of required degree :

17.44.1 100x100x100 mm

17.44.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	410.00	410.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				440.69	W
	Add 1 % Water charges on "W"				4.41	
	TOTAL				445.10	X
	Add GST on "X" (multiplying factor 0.2127)				94.67	
	TOTAL				539.77	Y
	Add 15% CPOH on "Y"				80.97	
	TOTAL				620.74	Z
	Add Cess @ 1% on "Z"				6.21	
	Cost of each				626.95	
	Say				626.95	

17.44.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3640	S.C.I. S&S single equal junctions 100x100x100 mm	each	1.00	540.00	540.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				570.69	W
	Add 1 % Water charges on "W"				5.71	
	TOTAL				576.40	X
	Add GST on "X" (multiplying factor 0.2127)				122.60	
	TOTAL				699.00	Y
	Add 15% CPOH on "Y"				104.85	
	TOTAL				803.85	Z
	Add Cess @ 1% on "Z"				8.04	
	Cost of each				811.89	
	Say				811.90	

17.44.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7627	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 100x100x100 mm dia	each	1.00	378.00	378.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				408.69	W
	Add 1 % Water charges on "W"				4.09	
	TOTAL				412.78	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				87.80	
	TOTAL				500.58	Y
	Add 15% CPOH on "Y"				75.09	
	TOTAL				575.67	Z
	Add Cess @ 1% on "Z"				5.76	
	Cost of each				581.43	
	Say				581.45	

17.44.2 75x75x75 mm

17.44.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1627	S.C.I. plain single equal junctions 75x75x75 mm dia	each	1.00	330.00	330.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				354.49	W
	Add 1 % Water charges on "W"				3.54	
	TOTAL				358.03	X
	Add GST on "X" (multiplying factor 0.2127)				76.15	
	TOTAL				434.18	Y
	Add 15% CPOH on "Y"				65.13	
	TOTAL				499.31	Z
	Add Cess @ 1% on "Z"				4.99	
	Cost of each				504.30	
	Say				504.30	

17.44.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3641	S.C.I. S&S single equal junctions 75x75x75 mm	each	1.00	370.00	370.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				394.49	W
	Add 1 % Water charges on "W"				3.94	
	TOTAL				398.43	X
	Add GST on "X" (multiplying factor 0.2127)				84.75	
	TOTAL				483.18	Y
	Add 15% CPOH on "Y"				72.48	
	TOTAL				555.66	Z
	Add Cess @ 1% on "Z"				5.56	
	Cost of each				561.22	
	Say				561.20	

17.44.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7628	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 75x75x75 mm dia	each	1.00	213.00	213.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				237.49	W
	Add 1 % Water charges on "W"				2.37	
	TOTAL				239.86	X
	Add GST on "X" (multiplying factor 0.2127)				51.02	
	TOTAL				290.88	Y
	Add 15% CPOH on "Y"				43.63	
	TOTAL				334.51	Z
	Add Cess @ 1% on "Z"				3.35	
	Cost of each				337.86	
	Say				337.85	

17.45 Providing and fixing double unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete:

17.45.1 100x100x75x75 mm

17.45.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1662	Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door.	each	1.00	760.00	760.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				810.69	W
	Add 1 % Water charges on "W"				8.11	
	TOTAL				818.80	X
	Add GST on "X" (multiplying factor 0.2127)				174.16	
	TOTAL				992.96	Y
	Add 15% CPOH on "Y"				148.94	
	TOTAL				1141.90	Z
	Add Cess @ 1% on "Z"				11.42	
	Cost of each				1153.32	
	Say				1153.30	

17.45.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3674	S.C.I. S&S double unequal junctions with access door 100x100x75x75 mm	each	1.00	1075.00	1075.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				1125.69	W
	Add 1 % Water charges on "W"				11.26	
	TOTAL				1136.95	X
	Add GST on "X" (multiplying factor 0.2127)				241.83	
	TOTAL				1378.78	Y
	Add 15% CPOH on "Y"				206.82	
	TOTAL				1585.60	Z
	Add Cess @ 1% on "Z"				15.86	
	Cost of each				1601.46	
	Say				1601.45	

17.46 Providing and fixing double unequal plain junction of required degree :

17.46.1 100x100x75x75 mm

17.46.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1659	Sand cast iron S&S plain double unequal junctions : 100x100x75x75 mm dia	each	1.00	640.00	640.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				670.69	W
	Add 1 % Water charges on "W"				6.71	
	TOTAL				677.40	X
	Add GST on "X" (multiplying factor 0.2127)				144.08	
	TOTAL				821.48	Y
	Add 15% CPOH on "Y"				123.22	
	TOTAL				944.70	Z
	Add Cess @ 1% on "Z"				9.45	
	Cost of each				954.15	
	Say				954.15	

17.46.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3670	S.C.I. S&S double unequal junctions 100x100x75x75 mm	each	1.00	955.00	955.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				985.69	W
	Add 1 % Water charges on "W"				9.86	
	TOTAL				995.55	X
	Add GST on "X" (multiplying factor 0.2127)				211.75	
	TOTAL				1207.30	Y
	Add 15% CPOH on "Y"				181.10	
	TOTAL				1388.40	Z
	Add Cess @ 1% on "Z"				13.88	
	Cost of each				1402.28	
	Say				1402.30	

17.46.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7629	Hubless centrifugally cast (spun) iron double unequal plain junction as per IS 15905 - 100x100x75x75 mm dia	each	1.00	396.00	396.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				426.69	W
	Add 1 % Water charges on "W"				4.27	
	TOTAL				430.96	X
	Add GST on "X" (multiplying factor 0.2127)				91.67	
	TOTAL				522.63	Y
	Add 15% CPOH on "Y"				78.39	
	TOTAL				601.02	Z
	Add Cess @ 1% on "Z"				6.01	
	Cost of each				607.03	
	Say				607.05	

17.47 Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete:

17.47.1 100x100x75 mm

17.47.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1656	Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door.	each	1.00	590.00	590.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				640.69	W
	Add 1 % Water charges on "W"				6.41	
	TOTAL				647.10	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				137.64	
	TOTAL				784.74	Y
	Add 15% CPOH on "Y"				117.71	
	TOTAL				902.45	Z
	Add Cess @ 1% on "Z"				9.02	
	Cost of each				911.47	
	Say				911.45	

17.47.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3664	S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	1.00	755.00	755.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				805.69	W
	Add 1 % Water charges on "W"				8.06	
	TOTAL				813.75	X
	Add GST on "X" (multiplying factor 0.2127)				173.08	
	TOTAL				986.83	Y
	Add 15% CPOH on "Y"				148.02	
	TOTAL				1134.85	Z
	Add Cess @ 1% on "Z"				11.35	
	Cost of each				1146.20	
	Say				1146.20	

17.48 Providing and fixing single unequal plain junction of required degree :

17.48.1 100x100x75 mm

17.48.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1653	Sand cast iron S&S plain single unequal junctions : 100x100x75 mm dia	each	1.00	540.00	540.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				570.69	W
	Add 1 % Water charges on "W"				5.71	
	TOTAL				576.40	X
	Add GST on "X" (multiplying factor 0.2127)				122.60	
	TOTAL				699.00	Y
	Add 15% CPOH on "Y"				104.85	
	TOTAL				803.85	Z
	Add Cess @ 1% on "Z"				8.04	
	Cost of each				811.89	
	Say				811.90	

17.48.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3660	S.C.I. S&S single unequal junctions 100x100x75 mm	each	1.00	695.00	695.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				725.69	W
	Add 1 % Water charges on "W"				7.26	
	TOTAL				732.95	X
	Add GST on "X" (multiplying factor 0.2127)				155.90	
	TOTAL				888.85	Y
	Add 15% CPOH on "Y"				133.33	
	TOTAL				1022.18	Z
	Add Cess @ 1% on "Z"				10.22	
	Cost of each				1032.40	
	Say				1032.40	

17.48.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7630	Hubless centrifugally cast (spun) iron single unequal plain junction as per IS 15905 - 100x100x75 mm dia	each	1.00	357.00	357.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				387.69	W
	Add 1 % Water charges on "W"				3.88	
	TOTAL				391.57	X
	Add GST on "X" (multiplying factor 0.2127)				83.29	
	TOTAL				474.86	Y
	Add 15% CPOH on "Y"				71.23	
	TOTAL				546.09	Z
	Add Cess @ 1% on "Z"				5.46	
	Cost of each				551.55	
	Say				551.55	

17.49 Providing and fixing double equal plain invert branch of required degree:

17.49.1 100x100x100x100 mm

17.49.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1673	S.C.I. double equal invert branch of required degree 100x100x100x100 mm dia	each	1.00	590.00	590.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				620.69	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				6.21	
	TOTAL				626.90	X
	Add GST on "X" (multiplying factor 0.2127)				133.34	
	TOTAL				760.24	Y
	Add 15% CPOH on "Y"				114.04	
	TOTAL				874.28	Z
	Add Cess @ 1% on "Z"				8.74	
	Cost of each				883.02	
	Say				883.00	

17.49.1.2 Sand cast iron S&S as per IS 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3685	S.C.I. S&S double equal invert branch of required degree100x100x100x100 mm dia	each	1.00	665.00	665.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				695.69	W
	Add 1 % Water charges on "W"				6.96	
	TOTAL				702.65	X
	Add GST on "X" (multiplying factor 0.2127)				149.45	
	TOTAL				852.10	Y
	Add 15% CPOH on "Y"				127.82	
	TOTAL				979.92	Z
	Add Cess @ 1% on "Z"				9.80	
	Cost of each				989.72	
	Say				989.70	

17.49.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7631	Hubless centrifugally cast (spun) iron double equal plain invert branch as per IS 15905 - 100x100x100x100 mm dia	each	1.00	747.00	747.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				777.69	W
	Add 1 % Water charges on "W"				7.78	
	TOTAL				785.47	X
	Add GST on "X" (multiplying factor 0.2127)				167.07	
	TOTAL				952.54	Y
	Add 15% CPOH on "Y"				142.88	
	TOTAL				1095.42	Z
	Add Cess @ 1% on "Z"				10.95	
	Cost of each				1106.37	
	Say				1106.35	

17.49.2 75x75x75x75 mm

17.49.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1672	S.C.I. double equal invert branch of required degree 75x75x75x75 mm dia	each	1.00	440.00	440.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				464.49	W
	Add 1 % Water charges on "W"				4.64	
	TOTAL				469.13	X
	Add GST on "X" (multiplying factor 0.2127)				99.78	
	TOTAL				568.91	Y
	Add 15% CPOH on "Y"				85.34	
	TOTAL				654.25	Z
	Add Cess @ 1% on "Z"				6.54	
	Cost of each				660.79	
	Say				660.80	

17.49.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3686	S.C.I. S&S double equal invert branch of required degree 75x75x75x75 mm dia	each	1.00	540.00	540.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				564.49	W
	Add 1 % Water charges on "W"				5.64	
	TOTAL				570.13	X
	Add GST on "X" (multiplying factor 0.2127)				121.27	
	TOTAL				691.40	Y
	Add 15% CPOH on "Y"				103.71	
	TOTAL				795.11	Z
	Add Cess @ 1% on "Z"				7.95	
	Cost of each				803.06	
	Say				803.05	

17.50 Providing and fixing single equal plain invert branch of required degree :

17.50.1 100x100x100 mm

17.50.1.1 Sand cast iron S&S as per iron 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1670	S.C.I. single equal invert branch of required degree 100x100x100 mm dia	each	1.00	460.00	460.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				490.69	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				4.91	
	TOTAL				495.60	X
	Add GST on "X" (multiplying factor 0.2127)				105.41	
	TOTAL				601.01	Y
	Add 15% CPOH on "Y"				90.15	
	TOTAL				691.16	Z
	Add Cess @ 1% on "Z"				6.91	
	Cost of each				698.07	
	Say				698.05	

17.50.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3681	S.C.I. S&S single equal invert branch of required degree 100x100x100 mm dia	each	1.00	495.00	495.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				525.69	W
	Add 1 % Water charges on "W"				5.26	
	TOTAL				530.95	X
	Add GST on "X" (multiplying factor 0.2127)				112.93	
	TOTAL				643.88	Y
	Add 15% CPOH on "Y"				96.58	
	TOTAL				740.46	Z
	Add Cess @ 1% on "Z"				7.40	
	Cost of each				747.86	
	Say				747.85	

17.50.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7632	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	1.00	423.00	423.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				453.69	W
	Add 1 % Water charges on "W"				4.54	
	TOTAL				458.23	X
	Add GST on "X" (multiplying factor 0.2127)				97.47	
	TOTAL				555.70	Y
	Add 15% CPOH on "Y"				83.36	
	TOTAL				639.06	Z
	Add Cess @ 1% on "Z"				6.39	
	Cost of each				645.45	
	Say				645.45	

17.50.2 75x75x75 mm

17.50.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1669	S.C.I. single equal invert branch of required degree75x75x75 mm dia	each	1.00	380.00	380.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				404.49	W
	Add 1 % Water charges on "W"				4.04	
	TOTAL				408.53	X
	Add GST on "X" (multiplying factor 0.2127)				86.89	
	TOTAL				495.42	Y
	Add 15% CPOH on "Y"				74.31	
	TOTAL				569.73	Z
	Add Cess @ 1% on "Z"				5.70	
	Cost of each				575.43	
	Say				575.45	

17.50.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3682	S.C.I. S&S single equal invert branch of required degree 75x75x75 mm dia	each	1.00	380.00	380.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				404.49	W
	Add 1 % Water charges on "W"				4.04	
	TOTAL				408.53	X
	Add GST on "X" (multiplying factor 0.2127)				86.89	
	TOTAL				495.42	Y
	Add 15% CPOH on "Y"				74.31	
	TOTAL				569.73	Z
	Add Cess @ 1% on "Z"				5.70	
	Cost of each				575.43	
	Say				575.45	

17.50.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7633	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	1.00	258.00	258.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				282.49	W
	Add 1 % Water charges on "W"				2.82	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				285.31	X
	Add GST on "X" (multiplying factor 0.2127)				60.69	
	TOTAL				346.00	Y
	Add 15% CPOH on "Y"				51.90	
	TOTAL				397.90	Z
	Add Cess @ 1% on "Z"				3.98	
	Cost of each				401.88	
	Say				401.90	

17.51 Providing and fixing double unequal invert branch of required degree :

17.51.1 100x100x75x75 mm

17.51.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1677	S.C.I. double unequal invert branch of required degree 100x100x75x75 mm dia	each	1.00	680.00	680.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				710.69	W
	Add 1 % Water charges on "W"				7.11	
	TOTAL				717.80	X
	Add GST on "X" (multiplying factor 0.2127)				152.68	
	TOTAL				870.48	Y
	Add 15% CPOH on "Y"				130.57	
	TOTAL				1001.05	Z
	Add Cess @ 1% on "Z"				10.01	
	Cost of each				1011.06	
	Say				1011.05	

17.51.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3695	S.C.I. S&S double unequal invert branch of required degree100x100x75x75 mm dia	each	1.00	865.00	865.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				895.69	W
	Add 1 % Water charges on "W"				8.96	
	TOTAL				904.65	X
	Add GST on "X" (multiplying factor 0.2127)				192.42	
	TOTAL				1097.07	Y
	Add 15% CPOH on "Y"				164.56	
	TOTAL				1261.63	Z
	Add Cess @ 1% on "Z"				12.62	
	Cost of each				1274.25	
	Say				1274.25	

17.52 Providing and fixing single unequal plain invert branch of required degree :

17.52.1 100x100x75 mm

17.52.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1674	S.C.I. single unequal invert branch of required degree100x100x75 mm dia	each	1.00	535.00	535.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				565.69	W
	Add 1 % Water charges on "W"				5.66	
	TOTAL				571.35	X
	Add GST on "X" (multiplying factor 0.2127)				121.53	
	TOTAL				692.88	Y
	Add 15% CPOH on "Y"				103.93	
	TOTAL				796.81	Z
	Add Cess @ 1% on "Z"				7.97	
	Cost of each				804.78	
	Say				804.80	

17.52.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3690	S.C.I. S&S single unequal invert branch of required degree100x100x75 mm dia	each	1.00	670.00	670.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				700.69	W
	Add 1 % Water charges on "W"				7.01	
	TOTAL				707.70	X
	Add GST on "X" (multiplying factor 0.2127)				150.53	
	TOTAL				858.23	Y
	Add 15% CPOH on "Y"				128.73	
	TOTAL				986.96	Z
	Add Cess @ 1% on "Z"				9.87	
	Cost of each				996.83	
	Say				996.85	

17.52.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7634	Hubless centrifugally cast (spun) iron single unequal plain invert branch 45 degree as per IS 15905 - 100x100x75 mm dia	each	1.00	432.00	432.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				462.69	W
	Add 1 % Water charges on "W"				4.63	
	TOTAL				467.32	X
	Add GST on "X" (multiplying factor 0.2127)				99.40	
	TOTAL				566.72	Y
	Add 15% CPOH on "Y"				85.01	
	TOTAL				651.73	Z
	Add Cess @ 1% on "Z"				6.52	
	Cost of each				658.25	
	Say				658.25	

17.53 Providing and fixing sand cast iron S&S off sets as per IS: 1729

17.53.1 76 mm off sets

17.53.1.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3746	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	1.00	240.00	240.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				264.49	W
	Add 1 % Water charges on "W"				2.64	
	TOTAL				267.13	X
	Add GST on "X" (multiplying factor 0.2127)				56.82	
	TOTAL				323.95	Y
	Add 15% CPOH on "Y"				48.59	
	TOTAL				372.54	Z
	Add Cess @ 1% on "Z"				3.73	
	Cost of each				376.27	
	Say				376.25	

17.53.1.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3747	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	1.00	400.00	400.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				424.49	W
	Add 1 % Water charges on "W"				4.24	
	TOTAL				428.73	X
	Add GST on "X" (multiplying factor 0.2127)				91.19	
	TOTAL				519.92	Y
	Add 15% CPOH on "Y"				77.99	
	TOTAL				597.91	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				5.98	
	Cost of each				603.89	
	Say				603.90	

17.53.2 114 mm off sets

17.53.2.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3712	S.C.I. S&S, 114 mm offset for75 mm dia pipe	each	1.00	340.00	340.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				370.69	W
	Add 1 % Water charges on "W"				3.71	
	TOTAL				374.40	X
	Add GST on "X" (multiplying factor 0.2127)				79.63	
	TOTAL				454.03	Y
	Add 15% CPOH on "Y"				68.10	
	TOTAL				522.13	Z
	Add Cess @ 1% on "Z"				5.22	
	Cost of each				527.35	
	Say				527.35	

17.53.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3713	S.C.I. S&S, 114 mm offset for100 mm dia pipe	each	1.00	425.00	425.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				455.69	W
	Add 1 % Water charges on "W"				4.56	
	TOTAL				460.25	X
	Add GST on "X" (multiplying factor 0.2127)				97.90	
	TOTAL				558.15	Y
	Add 15% CPOH on "Y"				83.72	
	TOTAL				641.87	Z
	Add Cess @ 1% on "Z"				6.42	
	Cost of each				648.29	
	Say				648.30	

17.53.3 152 mm off sets

17.53.3.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3716	S.C.I. S&S, 152 mm offset for75 mm dia pipe	each	1.00	395.00	395.00	
9988	Carriage of materials and fixing charges	L.S.	17.94	2.27	40.72	
	TOTAL				435.72	W
	Add 1 % Water charges on "W"				4.36	
	TOTAL				440.08	X
	Add GST on "X" (multiplying factor 0.2127)				93.61	
	TOTAL				533.69	Y
	Add 15% CPOH on "Y"				80.05	
	TOTAL				613.74	Z
	Add Cess @ 1% on "Z"				6.14	
	Cost of each				619.88	
	Say				619.90	

17.53.3.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3717	S.C.I. S&S, 152 mm offset for100 mm dia pipe	each	1.00	500.00	500.00	
9988	Carriage of materials and fixing charges	L.S.	17.94	2.27	40.72	
	TOTAL				540.72	W
	Add 1 % Water charges on "W"				5.41	
	TOTAL				546.13	X
	Add GST on "X" (multiplying factor 0.2127)				116.16	
	TOTAL				662.29	Y
	Add 15% CPOH on "Y"				99.34	
	TOTAL				761.63	Z
	Add Cess @ 1% on "Z"				7.62	
	Cost of each				769.25	
	Say				769.25	

17.53A Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905

17.53A.1 65 mm offsets

17.53A.1.1 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7635	Hubless centrifugally cast (spun) iron 65 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	360.00	360.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				384.49	W
	Add 1 % Water charges on "W"				3.84	
	TOTAL				388.33	X
	Add GST on "X" (multiplying factor 0.2127)				82.60	
	TOTAL				470.93	Y
	Add 15% CPOH on "Y"				70.64	
	TOTAL				541.57	Z
	Add Cess @ 1% on "Z"				5.42	
	Cost of each				546.99	
	Say				547.00	

17.53A.1.2 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7636	Hubless centrifugally cast (spun) iron 65 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	295.00	295.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				319.49	W
	Add 1 % Water charges on "W"				3.19	
	TOTAL				322.68	X
	Add GST on "X" (multiplying factor 0.2127)				68.63	
	TOTAL				391.31	Y
	Add 15% CPOH on "Y"				58.70	
	TOTAL				450.01	Z
	Add Cess @ 1% on "Z"				4.50	
	Cost of each				454.51	
	Say				454.50	

17.54 Providing and fixing sand cast iron S&S off sets as per IS: 3989 :

17.54.1 75 mm off sets

17.54.1.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3699	S.C.I. S&S, 75 mm offset for75 mm dia pipe	each	1.00	270.00	270.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				294.49	W
	Add 1 % Water charges on "W"				2.94	
	TOTAL				297.43	X
	Add GST on "X" (multiplying factor 0.2127)				63.26	
	TOTAL				360.69	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				54.10	
	TOTAL				414.79	Z
	Add Cess @ 1% on "Z"				4.15	
	Cost of each				418.94	
	Say				418.95	

17.54.2 150 mm off sets

17.54.2.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3707	S.C.I. S&S, 150 mm offset for75 mm dia pipe	each	1.00	375.00	375.00	
9988	Carriage of materials and fixing charges	L.S.	16.12	2.27	36.59	
	TOTAL				411.59	W
	Add 1 % Water charges on "W"				4.12	
	TOTAL				415.71	X
	Add GST on "X" (multiplying factor 0.2127)				88.42	
	TOTAL				504.13	Y
	Add 15% CPOH on "Y"				75.62	
	TOTAL				579.75	Z
	Add Cess @ 1% on "Z"				5.80	
	Cost of each				585.55	
	Say				585.55	

17.54.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3708	S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	1.00	480.00	480.00	
9988	Carriage of materials and fixing charges	L.S.	16.12	2.27	36.59	
	TOTAL				516.59	W
	Add 1 % Water charges on "W"				5.17	
	TOTAL				521.76	X
	Add GST on "X" (multiplying factor 0.2127)				110.98	
	TOTAL				632.74	Y
	Add 15% CPOH on "Y"				94.91	
	TOTAL				727.65	Z
	Add Cess @ 1% on "Z"				7.28	
	Cost of each				734.93	
	Say				734.95	

17.54A Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905

17.54A.1 130 mm offsets

17.54A.1.1 With 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7637	Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	414.00	414.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				444.69	W
	Add 1 % Water charges on "W"				4.45	
	TOTAL				449.14	X
	Add GST on "X" (multiplying factor 0.2127)				95.53	
	TOTAL				544.67	Y
	Add 15% CPOH on "Y"				81.70	
	TOTAL				626.37	Z
	Add Cess @ 1% on "Z"				6.26	
	Cost of each				632.63	
	Say				632.65	

17.54A.1.2 With 75 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7638	Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	303.00	303.00	
9999	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				327.49	W
	Add 1 % Water charges on "W"				3.27	
	TOTAL				330.76	X
	Add GST on "X" (multiplying factor 0.2127)				70.35	
	TOTAL				401.11	Y
	Add 15% CPOH on "Y"				60.17	
	TOTAL				461.28	Z
	Add Cess @ 1% on "Z"				4.61	
	Cost of each				465.89	
	Say				465.90	

17.55 Providing and fixing door piece, insertion rubber washer 3mm thick, bolts & nuts complete :

17.55.1 100 mm

17.55.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1683	S.C.I. door pieces 100 mm dia	each	1.00	500.00	500.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				550.69	W
	Add 1 % Water charges on "W"				5.51	
	TOTAL				556.20	X
	Add GST on "X" (multiplying factor 0.2127)				118.30	
	TOTAL				674.50	Y
	Add 15% CPOH on "Y"				101.18	
	TOTAL				775.68	Z
	Add Cess @ 1% on "Z"				7.76	
	Cost of each				783.44	
	Say				783.45	

17.55.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3728	S.C.I. S&S door pieces 100 mm dia	each	1.00	430.00	430.00	
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	20.00	20.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				480.69	W
	Add 1 % Water charges on "W"				4.81	
	TOTAL				485.50	X
	Add GST on "X" (multiplying factor 0.2127)				103.27	
	TOTAL				588.77	Y
	Add 15% CPOH on "Y"				88.32	
	TOTAL				677.09	Z
	Add Cess @ 1% on "Z"				6.77	
	Cost of each				683.86	
	Say				683.85	

17.55.2 75 mm

17.55.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1682	S.C.I. door pieces 75 mm dia	each	1.00	310.00	310.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				352.49	W
	Add 1 % Water charges on "W"				3.52	
	TOTAL				356.01	X
	Add GST on "X" (multiplying factor 0.2127)				75.72	
	TOTAL				431.73	Y
	Add 15% CPOH on "Y"				64.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				496.49	Z
	Add Cess @ 1% on "Z"				4.96	
	Cost of each				501.45	
	Say				501.45	

17.55.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3729	S.C.I. S&S door pieces 75 mm dia	each	1.00	335.00	335.00	
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	18.00	18.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				377.49	W
	Add 1 % Water charges on "W"				3.77	
	TOTAL				381.26	X
	Add GST on "X" (multiplying factor 0.2127)				81.09	
	TOTAL				462.35	Y
	Add 15% CPOH on "Y"				69.35	
	TOTAL				531.70	Z
	Add Cess @ 1% on "Z"				5.32	
	Cost of each				537.02	
	Say				537.00	

17.56 Providing and fixing terminal guard :

17.56.1 100 mm

17.56.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1640	Slotted cowl (terminal guard) 100 mm dia	each	1.00	280.00	280.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				310.69	W
	Add 1 % Water charges on "W"				3.11	
	TOTAL				313.80	X
	Add GST on "X" (multiplying factor 0.2127)				66.75	
	TOTAL				380.55	Y
	Add 15% CPOH on "Y"				57.08	
	TOTAL				437.63	Z
	Add Cess @ 1% on "Z"				4.38	
	Cost of each				442.01	
	Say				442.00	

17.56.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3733	S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	1.00	325.00	325.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				355.69	W
	Add 1 % Water charges on "W"				3.56	
	TOTAL				359.25	X
	Add GST on "X" (multiplying factor 0.2127)				76.41	
	TOTAL				435.66	Y
	Add 15% CPOH on "Y"				65.35	
	TOTAL				501.01	Z
	Add Cess @ 1% on "Z"				5.01	
	Cost of each				506.02	
	Say				506.00	

17.56.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7641	Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) - 100 mm dia as per IS 15905	each	1.00	270.00	270.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				300.69	W
	Add 1 % Water charges on "W"				3.01	
	TOTAL				303.70	X
	Add GST on "X" (multiplying factor 0.2127)				64.60	
	TOTAL				368.30	Y
	Add 15% CPOH on "Y"				55.25	
	TOTAL				423.55	Z
	Add Cess @ 1% on "Z"				4.24	
	Cost of each				427.79	
	Say				427.80	

17.56.2 75 mm

17.56.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1639	Slotted cowl (terminal guard)75 mm dia	each	1.00	215.00	215.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				239.49	W
	Add 1 % Water charges on "W"				2.39	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				241.88	X
	Add GST on "X" (multiplying factor 0.2127)				51.45	
	TOTAL				293.33	Y
	Add 15% CPOH on "Y"				44.00	
	TOTAL				337.33	Z
	Add Cess @ 1% on "Z"				3.37	
	Cost of each				340.70	
	Say				340.70	

17.56.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3734	S.C.I. S&S, Slotted Cowl (Terminal Guard) 75 mm	each	1.00	260.00	260.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				284.49	W
	Add 1 % Water charges on "W"				2.84	
	TOTAL				287.33	X
	Add GST on "X" (multiplying factor 0.2127)				61.12	
	TOTAL				348.45	Y
	Add 15% CPOH on "Y"				52.27	
	TOTAL				400.72	Z
	Add Cess @ 1% on "Z"				4.01	
	Cost of each				404.73	
	Say				404.75	

17.57 Providing and fixing collar :

17.57.1 100 mm

17.57.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1686	S.C.I. collar 100 mm dia	each	1.00	295.00	295.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				325.69	W
	Add 1 % Water charges on "W"				3.26	
	TOTAL				328.95	X
	Add GST on "X" (multiplying factor 0.2127)				69.97	
	TOTAL				398.92	Y
	Add 15% CPOH on "Y"				59.84	
	TOTAL				458.76	Z
	Add Cess @ 1% on "Z"				4.59	
	Cost of each				463.35	
	Say				463.35	

17.57.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3738	S.C.I. S&S, collars 100 mm	each	1.00	330.00	330.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				360.69	W
	Add 1 % Water charges on "W"				3.61	
	TOTAL				364.30	X
	Add GST on "X" (multiplying factor 0.2127)				77.49	
	TOTAL				441.79	Y
	Add 15% CPOH on "Y"				66.27	
	TOTAL				508.06	Z
	Add Cess @ 1% on "Z"				5.08	
	Cost of each				513.14	
	Say				513.15	

17.57.2 75 mm

17.57.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1685	S.C.I. collar 75 mm dia	each	1.00	190.00	190.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				214.49	W
	Add 1 % Water charges on "W"				2.14	
	TOTAL				216.63	X
	Add GST on "X" (multiplying factor 0.2127)				46.08	
	TOTAL				262.71	Y
	Add 15% CPOH on "Y"				39.41	
	TOTAL				302.12	Z
	Add Cess @ 1% on "Z"				3.02	
	Cost of each				305.14	
	Say				305.15	

17.57.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3739	S.C.I. S&S, collars 75 mm	each	1.00	230.00	230.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				254.49	W
	Add 1 % Water charges on "W"				2.54	
	TOTAL				257.03	X
	Add GST on "X" (multiplying factor 0.2127)				54.67	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				311.70	Y
	Add 15% CPOH on "Y"				46.76	
	TOTAL				358.46	Z
	Add Cess @ 1% on "Z"				3.58	
	Cost of each				362.04	
	Say				362.05	

17.57A Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe

17.57A.1 100 mm dia

17.57A.1.1 SS 304 grade coupling with EPDM rubber gasket

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7644	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia Hubless centrifugally cast (spun) iron	each	1.00	273.00	273.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				303.69	W
	Add 1 % Water charges on "W"				3.04	
	TOTAL				306.73	X
	Add GST on "X" (multiplying factor 0.2127)				65.24	
	TOTAL				371.97	Y
	Add 15% CPOH on "Y"				55.80	
	TOTAL				427.77	Z
	Add Cess @ 1% on "Z"				4.28	
	Cost of each				432.05	
	Say				432.05	

17.57A.2 75 mm dia

17.57A.2.1 SS 304 grade coupling with EPDM rubber gasket

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7645	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia Hubless centrifugally cast (spun) iron	each	1.00	249.00	249.00	
9977	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				273.49	W
	Add 1 % Water charges on "W"				2.73	
	TOTAL				276.22	X
	Add GST on "X" (multiplying factor 0.2127)				58.75	
	TOTAL				334.97	Y
	Add 15% CPOH on "Y"				50.25	
	TOTAL				385.22	Z
	Add Cess @ 1% on "Z"				3.85	
	Cost of each				389.07	
	Say				389.05	

17.58 Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :

17.58.1 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one joint					
	MATERIAL					
1397	Pig lead	kilogram	0.98	210.00	205.80	
1881	Spun yarn	kilogram	0.11	61.00	6.71	
9999	Kerosene oil, fuel and other sundries	L.S.	13.52	2.27	30.69	
9977	Carriage of materials	L.S.	1.43	2.27	3.25	
	LABOUR					
0116	Fitter (grade 1)	day	0.06	897.00	53.82	
0117	Assistant Fitter or 2nd class Fitter	day	0.06	816.00	48.96	
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				437.55	W
	Add 1 % Water charges on “W”				4.38	
	TOTAL				441.93	X
	Add GST on “X” (multiplying factor 0.2127)				94.00	
	TOTAL				535.93	Y
	Add 15% CPOH on “Y”				80.39	
	TOTAL				616.32	Z
	Add Cess @ 1% on “Z”				6.16	
	Cost of each				622.48	
	Say				622.50	

17.58.2 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one joint					
	MATERIAL					
1397	Pig lead	kilogram	0.88	210.00	184.80	
1881	Spun yarn	kilogram	0.09	61.00	5.49	
9999	Kerosene oil, fuel and other sundries	L.S.	10.79	2.27	24.49	
9977	Carriage of materials	L.S.	1.43	2.27	3.25	
	LABOUR					
0116	Fitter (grade 1)	day	0.05	897.00	44.85	
0117	Assistant Fitter or 2nd class Fitter	day	0.05	816.00	40.80	
0114	Beldar	day	0.09	736.00	66.24	
	TOTAL				369.92	W
	Add 1 % Water charges on “W”				3.70	
	TOTAL				373.62	X
	Add GST on “X” (multiplying factor 0.2127)				79.47	
	TOTAL				453.09	Y
	Add 15% CPOH on “Y”				67.96	
	TOTAL				521.05	Z
	Add Cess @ 1% on “Z”				5.21	
	Cost of each				526.26	
	Say				526.25	

17.58.3 50 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one joint					
	MATERIAL					
1397	Pig lead	kilogram	0.77	210.00	161.70	
1881	Spun yarn	kilogram	0.06	61.00	3.66	
9999	Kerosene oil, fuel and other sundries	L.S.	6.76	2.27	15.35	
9977	Carriage of materials	L.S.	1.43	2.27	3.25	
	LABOUR					
0116	Fitter (grade 1)	day	0.04	897.00	35.88	
0117	Assistant Fitter or 2nd class Fitter	day	0.05	816.00	40.80	
0114	Beldar	day	0.05	736.00	36.80	
	TOTAL				297.44	W
	Add 1 % Water charges on “W”				2.97	
	TOTAL				300.41	X
	Add GST on “X” (multiplying factor 0.2127)				63.90	
	TOTAL				364.31	Y
	Add 15% CPOH on “Y”				54.65	
	TOTAL				418.96	Z
	Add Cess @ 1% on “Z”				4.19	
	Cost of each				423.15	
	Say				423.15	

17.59 Providing and fixing M.S. stays and clamps for sand cast iron/ centrifugally cast (spun) iron pipes of diameter :

17.59.1 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1330	Clamps and M.S. stays including bolts and nuts for 100 mm pipe	each	1.00	67.50	67.50	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				98.19	W
	Add 1 % Water charges on “W”				0.98	
	TOTAL				99.17	X
	Add GST on “X” (multiplying factor 0.2127)				21.09	
	TOTAL				120.26	Y
	Add 15% CPOH on “Y”				18.04	
	TOTAL				138.30	Z
	Add Cess @ 1% on “Z”				1.38	
	Cost of each				139.68	
	Say				139.70	

17.59.2 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1335	Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	1.00	39.00	39.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				63.49	W
	Add 1 % Water charges on "W"				0.63	
	TOTAL				64.12	X
	Add GST on "X" (multiplying factor 0.2127)				13.64	
	TOTAL				77.76	Y
	Add 15% CPOH on "Y"				11.66	
	TOTAL				89.42	Z
	Add Cess @ 1% on "Z"				0.89	
	Cost of each				90.31	
	Say				90.30	

17.59.3 50 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1334	Clamps and M.S. stays including bolts and nuts for 50 mm pipe	each	1.00	36.00	36.00	
9988	Carriage of materials and fixing charges	L.S.	9.49	2.27	21.54	
	TOTAL				57.54	W
	Add 1 % Water charges on "W"				0.58	
	TOTAL				58.12	X
	Add GST on "X" (multiplying factor 0.2127)				12.36	
	TOTAL				70.48	Y
	Add 15% CPOH on "Y"				10.57	
	TOTAL				81.05	Z
	Add Cess @ 1% on "Z"				0.81	
	Cost of each				81.86	
	Say				81.85	

17.60 Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :

17.60.1 100 mm inlet and 100 mm outlet

17.60.1.1 Sand cast iron S&S as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7808	Centrifugally cast (spun) iron S&S 100 mm inlet and 100 mm outlet trap	each	1.00	550.00	550.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				1403.39	W
	Add 1 % Water charges on "W"				14.03	
	TOTAL				1417.42	X
	Add GST on "X" (multiplying factor 0.2127)				301.49	
	TOTAL				1718.91	Y
	Add 15% CPOH on "Y"				257.84	
	TOTAL				1976.75	Z
	Add Cess @ 1% on "Z"				19.77	
	Cost of each				1996.52	
	Say				1996.50	

17.60.1.2 Sand Cast Iron S&S as per IS: 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1897	100 mm S.C.I. trap with 100 mm inlet and 100 mm outlet	each	1.00	330.00	330.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				1183.39	W
	Add 1 % Water charges on "W"				11.83	
	TOTAL				1195.22	X
	Add GST on "X" (multiplying factor 0.2127)				254.22	
	TOTAL				1449.44	Y
	Add 15% CPOH on "Y"				217.42	
	TOTAL				1666.86	Z
	Add Cess @ 1% on "Z"				16.67	
	Cost of each				1683.53	
	Say				1683.55	

17.60.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7642	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 100 mm outlet as per IS 15905	each	1.00	570.00	570.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				600.69	W
	Add 1 % Water charges on "W"				6.01	
	TOTAL				606.70	X
	Add GST on "X" (multiplying factor 0.2127)				129.05	
	TOTAL				735.75	Y
	Add 15% CPOH on "Y"				110.36	
	TOTAL				846.11	Z
	Add Cess @ 1% on "Z"				8.46	
	Cost of each				854.57	
	Say				854.55	

17.60.2 100 mm inlet and 75 mm outlet

17.60.2.1 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7809	Centrifugally cast (spun) iron S&S 100 mm inlet and 75 mm outlet trap	each	1.00	535.00	535.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				1388.39	W
	Add 1 % Water charges on "W"				13.88	
	TOTAL				1402.27	X
	Add GST on "X" (multiplying factor 0.2127)				298.26	
	TOTAL				1700.53	Y
	Add 15% CPOH on "Y"				255.08	
	TOTAL				1955.61	Z
	Add Cess @ 1% on "Z"				19.56	
	Cost of each				1975.17	
	Say				1975.15	

17.60.2.2 Sand Cast Iron S&S as per IS- 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1898	100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet	each	1.00	242.00	242.00	
9999	Cement, sand and grit etc.	L.S.	13.52	2.27	30.69	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1095.39	W
	Add 1 % Water charges on "W"				10.95	
	TOTAL				1106.34	X
	Add GST on "X" (multiplying factor 0.2127)				235.32	
	TOTAL				1341.66	Y
	Add 15% CPOH on "Y"				201.25	
	TOTAL				1542.91	Z
	Add Cess @ 1% on "Z"				15.43	
	Cost of each				1558.34	
	Say				1558.35	

17.60.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one no.					
	MATERIAL					
7643	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 75 mm outlet as per IS 15905	each	1.00	385.00	385.00	
9977	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				415.69	W
	Add 1 % Water charges on "W"				4.16	
	TOTAL				419.85	X
	Add GST on "X" (multiplying factor 0.2127)				89.30	
	TOTAL				509.15	Y
	Add 15% CPOH on "Y"				76.37	
	TOTAL				585.52	Z
	Add Cess @ 1% on "Z"				5.86	
	Cost of each				591.38	
	Say				591.40	

17.61 Cutting chases in brick masonry walls for following diameter sand cast iron/centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :

17.61.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.022	9311.40	204.85	A
9999	Plastering in cement mortar 1:4	L.S.	10.40	2.27	23.61	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0123	Mason 1st class	day	0.14	897.00	125.58	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.27	736.00	198.72	
	TOTAL				562.20	W
	Add 1 % Water charges on "W-A"				3.57	
	TOTAL				565.77	X
	Add GST on "X-A" (multiplying factor 0.2127)				76.77	
	TOTAL				642.54	Y
	Add 15% CPOH on "Y-A"				65.65	
	TOTAL				708.19	Z
	Add Cess @ 1% on "Z-A"				5.03	
	Cost of one metre				713.22	
	Say				713.20	

17.61.2 75 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.015	9311.40	139.67	A
9999	Plastering in cement mortar 1:4	L.S.	7.80	2.27	17.71	
9977	Carriage of materials	L.S.	3.51	2.27	7.97	
	LABOUR					
0123	Mason 1st class	day	0.10	897.00	89.70	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				402.25	W
	Add 1 % Water charges on "W-A"				2.63	
	TOTAL				404.88	X
	Add GST on "X-A" (multiplying factor 0.2127)				56.41	
	TOTAL				461.29	Y
	Add 15% CPOH on "Y-A"				48.24	
	TOTAL				509.53	Z
	Add Cess @ 1% on "Z-A"				3.70	
	Cost of one metre				513.23	
	Say				513.25	

17.61.3 50 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.008	9311.40	74.49	A
9999	Plastering in cement mortar 1:4	L.S.	5.20	2.27	11.80	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0123	Mason 1st class	day	0.07	897.00	62.79	
0114	Beldar	day	0.14	736.00	103.04	
	TOTAL				258.32	W
	Add 1 % Water charges on "W-A"				1.84	
	TOTAL				260.16	X
	Add GST on "X-A" (multiplying factor 0.2127)				39.49	
	TOTAL				299.65	Y
	Add 15% CPOH on "Y-A"				33.77	
	TOTAL				333.42	Z
	Add Cess @ 1% on "Z-A"				2.59	
	Cost of one metre				336.01	
	Say				336.00	

17.62 Painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint over a coat of zinc chromate yellow primer (of approved quality) on the outside surface of the cistern, flush pipe, other fittings, etc. complete for new work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cistern with fittings					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.23	120.00	27.60	
4202	Red oxide Zinc chromate primer	litre	0.20	140.00	28.00	
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.40	178.00	71.20	
9977	Carriage of materials	L.S.	1.43	2.27	3.25	
9999	Sundries	L.S.	6.76	2.27	15.35	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				717.40	W
	Add 1 % Water charges on "W"				7.17	
	TOTAL				724.57	X
	Add GST on "X" (multiplying factor 0.2127)				154.12	
	TOTAL				878.69	Y
	Add 15% CPOH on "Y"				131.80	
	TOTAL				1010.49	Z
	Add Cess @ 1% on "Z"				10.10	
	Cost of each				1020.59	
	Say				1020.60	

17.63 Re-painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint on the outside surface of the cistern, flush pipe, other fittings, etc. complete, including polishing of wooden seat and lid and cleaning of W.C. pan with acid wherever necessary.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cistern with fittings					
	MATERIAL					
0828	Anticorrosive bituminous paint (black)	litre	0.23	120.00	27.60	
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.20	178.00	35.60	
9999	Polishing of wooden seat and cleaning of W.C. pan with acid	L.S.	20.67	2.27	46.92	
9988	Sundries and carriage of materials	L.S.	7.15	2.27	16.23	
	LABOUR					
0131	Painter	day	0.20	816.00	163.20	
0114	Beldar	day	0.25	736.00	184.00	
	TOTAL				473.55	W
	Add 1 % Water charges on "W"				4.74	
	TOTAL				478.29	X
	Add GST on "X" (multiplying factor 0.2127)				101.73	
	TOTAL				580.02	Y
	Add 15% CPOH on "Y"				87.00	
	TOTAL				667.02	Z
	Add Cess @ 1% on "Z"				6.67	
	Cost of each				673.69	
	Say				673.70	

17.64 Repainting C.I. cistern with synthetic enamel paint of approved colour, brand and manufacture on the outside surface of cistern, flush pipe, other fittings etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cistern with fittings					
	MATERIAL					
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.20	178.00	35.60	
9988	Sundries and carriage of materials	L.S.	3.64	2.27	8.26	
	LABOUR					
0131	Painter	day	0.09	816.00	73.44	
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				205.62	W
	Add 1 % Water charges on "W"				2.06	
	TOTAL				207.68	X
	Add GST on "X" (multiplying factor 0.2127)				44.17	
	TOTAL				251.85	Y
	Add 15% CPOH on "Y"				37.78	
	TOTAL				289.63	Z
	Add Cess @ 1% on "Z"				2.90	
	Cost of each				292.53	
	Say				292.55	

17.65 Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :

17.65.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	MATERIAL					
	Perimeter = 3.14x110 mm =345.71					
	Area 10x0.3457 = 3.46 sqm					
	Priming coat					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing Painting two coats with paint of any colour such as chocolatem grey or buff etc.	sqm	3.46	67.40	233.20	A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	3.46	155.90	539.41	A
9999	Add for delay	L.S.	17.16	2.27	38.95	
	TOTAL				811.56	W
	Add 1 % Water charges on “W-A”				0.39	
	TOTAL				811.95	X
	Add GST on “X-A” (multiplying factor 0.2127)				8.37	
	TOTAL				820.32	Y
	Add 15% CPOH on “Y-A”				7.16	
	TOTAL				827.48	Z
	Add Cess @ 1% on “Z-A”				0.55	
	Cost of 10 metres				828.03	
	Cost of 1 metre				82.80	
	Say				82.80	

17.65.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	MATERIAL					
	Perimeter = 3.14x82 mm =257.71					
	Area 10x0.2577 =2.577 sqm say 2.60 sq. m for outer surface					
	Priming coat					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing Painting two coats with paint of any colour such as choclate grey or buff etc.	sqm	2.60	67.40	175.24	A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	2.60	155.90	405.34	A
9999	Add for delay	L.S.	15.21	2.27	34.53	
	TOTAL				615.11	W
	Add 1 % Water charges on “W-A”				0.35	
	TOTAL				615.46	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				7.42	
	TOTAL				622.88	Y
	Add 15% CPOH on "Y-A"				6.34	
	TOTAL				629.22	Z
	Add Cess @ 1% on "Z-A"				0.49	
	Cost of 10 metres				629.71	
	Cost of 1 metre				62.97	
	Say				62.95	

17.66 Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with one coat of synthetic enamel paint of any colour such as chocolate, grey or buff etc :

17.66.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
13.99.1	Painting one coat with paint of any colour such as chocolate,grey or buff etc. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	3.46	102.80	355.69	A
9999	Add for delay	L.S.	12.22	2.27	27.74	
	TOTAL				383.43	W
	Add 1 % Water charges on "W-A"				0.28	
	TOTAL				383.71	X
	Add GST on "X-A" (multiplying factor 0.2127)				5.96	
	TOTAL				389.67	Y
	Add 15% CPOH on "Y-A"				5.10	
	TOTAL				394.77	Z
	Add Cess @ 1% on "Z-A"				0.39	
	Cost of 10 metres				395.16	
	Cost of 1 metre				39.52	
	Say				39.50	

17.66.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
13.99.1	Painting one coat with paint of any colour such as chocolate,grey or buff etc. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	2.577	102.80	264.92	A
9999	Add for delay	L.S.	9.49	2.27	21.54	
	TOTAL				286.46	W
	Add 1 % Water charges on "W-A"				0.22	
	TOTAL				286.68	X
	Add GST on "X-A" (multiplying factor 0.2127)				4.63	
	TOTAL				291.31	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				3.96	
	TOTAL				295.27	Z
	Add Cess @ 1% on "Z-A"				0.30	
	Cost of 10 metres				295.57	
	Cost of 1 metre				29.56	
	Say				29.55	

17.67 Repainting bath tub of size 1700x730x430 mm with enamel paint.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one tub					
	MATERIAL					
0833	Synthetic enamel paint in black or chocolate shade	litre	0.90	180.00	162.00	
9999	Sundries	L.S.	6.76	2.27	15.35	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0115	Coolie	day	0.25	736.00	184.00	
	TOTAL				565.35	W
	Add 1 % Water charges on "W"				5.65	
	TOTAL				571.00	X
	Add GST on "X" (multiplying factor 0.2127)				121.45	
	TOTAL				692.45	Y
	Add 15% CPOH on "Y"				103.87	
	TOTAL				796.32	Z
	Add Cess @ 1% on "Z"				7.96	
	Cost of each				804.28	
	Say				804.30	

17.68 Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:

17.68.1 White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	451.00	451.00	
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as sequatting pan or European type water closet as per manufacturer's specifications	each	1.00	2650.00	2650.00	
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	20 mm G.I.over flow pipe and specials for over flow pipe	L.S.	276.25	2.27	627.09	
1350	Mosquito proof coupling of approved design	each	1.00	35.00	35.00	
9999	Plugs, screws etc.	L.S.	59.15	2.27	134.27	
9999	Red lead, white lead and gaskin etc.	L.S.	71.76	2.27	162.90	
9999	Cement,sand and grit	L.S.	118.43	2.27	268.84	
9977	Carriage of materials	L.S.	118.43	2.27	268.84	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				8327.94	W
	Add 1 % Water charges on “W”				83.28	
	TOTAL				8411.22	X
	Add GST on “X” (multiplying factor 0.2127)				1789.07	
	TOTAL				10200.29	Y
	Add 15% CPOH on “Y”				1530.04	
	TOTAL				11730.33	Z
	Add Cess @ 1% on “Z”				117.30	
	Cost of each				11847.63	
	Say				11847.65	

17.69 Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.

17.69.1 Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7491	PTMT Waste Coupling 31/32MM	each	1.00	35.00	35.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				81.04	W
	Add 1 % Water charges on “W”				0.81	
	TOTAL				81.85	X
	Add GST on “X” (multiplying factor 0.2127)				17.41	
	TOTAL				99.26	Y
	Add 15% CPOH on “Y”				14.89	
	TOTAL				114.15	Z
	Add Cess @ 1% on “Z”				1.14	
	Cost of each				115.29	
	Say				115.30	

17.69.2 Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7492	PTMT Waste Coupling 38/40MM	each	1.00	40.00	40.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				86.04	W
	Add 1 % Water charges on "W"				0.86	
	TOTAL				86.90	X
	Add GST on "X" (multiplying factor 0.2127)				18.48	
	TOTAL				105.38	Y
	Add 15% CPOH on "Y"				15.81	
	TOTAL				121.19	Z
	Add Cess @ 1% on "Z"				1.21	
	Cost of each				122.40	
	Say				122.40	

17.70 Providing and fixing PTMT Bottle Trap for Wash basin and sink.

17.70.1 Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7493	PTMT Bottle Trap 31/32MM	each	1.00	212.00	212.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				258.04	W
	Add 1 % Water charges on "W"				2.58	
	TOTAL				260.62	X
	Add GST on "X" (multiplying factor 0.2127)				55.43	
	TOTAL				316.05	Y
	Add 15% CPOH on "Y"				47.41	
	TOTAL				363.46	Z
	Add Cess @ 1% on "Z"				3.63	
	Cost of each				367.09	
	Say				367.10	

17.70.2 Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7494	PTMT Bottle Trap 38/40MM	each	1.00	218.00	218.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				264.04	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				2.64	
	TOTAL				266.68	X
	Add GST on "X" (multiplying factor 0.2127)				56.72	
	TOTAL				323.40	Y
	Add 15% CPOH on "Y"				48.51	
	TOTAL				371.91	Z
	Add Cess @ 1% on "Z"				3.72	
	Cost of each				375.63	
	Say				375.65	

17.71 Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7503	PTMT Liquid Soap Container of 400ml capacity	each	1.00	103.00	103.00	
9988	Carriage of materials and fixing charges	L.S.	6.76	2.27	15.35	
	TOTAL				118.35	W
	Add 1 % Water charges on "W"				1.18	
	TOTAL				119.53	X
	Add GST on "X" (multiplying factor 0.2127)				25.42	
	TOTAL				144.95	Y
	Add 15% CPOH on "Y"				21.74	
	TOTAL				166.69	Z
	Add Cess @ 1% on "Z"				1.67	
	Cost of each				168.36	
	Say				168.35	

17.72 Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
7504	PTMT - Towel Ring 215x200x37mm	each	1.00	117.00	117.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				163.04	W
	Add 1 % Water charges on "W"				1.63	
	TOTAL				164.67	X
	Add GST on "X" (multiplying factor 0.2127)				35.03	
	TOTAL				199.70	Y
	Add 15% CPOH on "Y"				29.96	
	TOTAL				229.66	Z
	Add Cess @ 1% on "Z"				2.30	
	Cost of each				231.96	
	Say				231.95	

17.73 Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.

17.73.1 450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7505	PTMT Towel Rail (450mm)	each	1.00	132.00	132.00	
	Wooden cleates					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	40.85	81.70	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	177.00	10.62	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.17	816.00	138.72	
0114	Beldar	day	0.17	736.00	125.12	
	TOTAL				497.60	W
	Add 1 % Water charges on “W-A”				4.16	
	TOTAL				501.76	X
	Add GST on “X-A” (multiplying factor 0.2127)				89.35	
	TOTAL				591.11	Y
	Add 15% CPOH on “Y-A”				76.41	
	TOTAL				667.52	Z
	Add Cess @ 1% on “Z-A”				5.86	
	Cost of each				673.38	
	Say				673.40	

17.73.2 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7506	PTMT Towel Rail (600mm)	each	1.00	157.00	157.00	
	Wooden cleates					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	40.85	81.70	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	177.00	10.62	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.17	816.00	138.72	
0114	Beldar	day	0.17	736.00	125.12	
	TOTAL				522.60	W
	Add 1 % Water charges on “W-A”				4.41	
	TOTAL				527.01	X
	Add GST on “X-A” (multiplying factor 0.2127)				94.72	
	TOTAL				621.73	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				81.00	
	TOTAL				702.73	Z
	Add Cess @ 1% on "Z-A"				6.21	
	Cost of each				708.94	
	Say				708.95	

17.74 Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7507	PTMT Shelf 450x124x36mm	each	1.00	160.00	160.00	
	Wooden cleates					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	40.85	81.70	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	177.00	10.62	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0112	Carpenter 2nd class	day	0.17	816.00	138.72	
0114	Beldar	day	0.17	736.00	125.12	
	TOTAL				525.60	W
	Add 1 % Water charges on "W-A"				4.44	
	TOTAL				530.04	X
	Add GST on "X-A" (multiplying factor 0.2127)				95.36	
	TOTAL				625.40	Y
	Add 15% CPOH on "Y-A"				81.56	
	TOTAL				706.96	Z
	Add Cess @ 1% on "Z-A"				6.25	
	Cost of each				713.21	
	Say				713.20	

17.75 Providing and fixing PTMT 15 mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes, weighing not less than 60 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7508	PTMT Urinal Spreader 15mm	each	1.00	60.00	60.00	
9988	Carriage of materials and fixing charges	L.S.	6.76	2.27	15.35	
	TOTAL				75.35	W
	Add 1 % Water charges on "W"				0.75	
	TOTAL				76.10	X
	Add GST on "X" (multiplying factor 0.2127)				16.19	
	TOTAL				92.29	Y
	Add 15% CPOH on "Y"				13.84	
	TOTAL				106.13	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				1.06	
	Cost of each				107.19	
	Say				107.20	

17.76 Providing and fixing PTMT urinal cock of approved quality and colour.

17.76.1 15 mm nominal bore, 80 mm long, 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7858	P.T.M.T. Urinal cock 15mm dia	each	1.00	105.00	105.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				123.30	W
	Add 1 % Water charges on "W"				1.23	
	TOTAL				124.53	X
	Add GST on "X" (multiplying factor 0.2127)				26.49	
	TOTAL				151.02	Y
	Add 15% CPOH on "Y"				22.65	
	TOTAL				173.67	Z
	Add Cess @ 1% on "Z"				1.74	
	Cost of each				175.41	
	Say				175.40	

17.77 Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe.

17.77.1 Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 nos.					
	MATERIAL					
	M.S. flats 50x5mm= 50 x 0.58 = 29m					
	@ 1.97 kg/ metre = 57.1 kg.					
	M.S. flats 30x1.6mm= 50x0.42 = 21m.					
	0.38kg/metre = 8kg.					
	Total = 65.1kg.					
	Add wastage 5% = 3.3kg.					
	Total = 68.6 kg.= 0.686 quintal					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.686	5965.00	4091.99	
2205	Carriage of Steel	tonne	0.068	0.00	0.00	
	LABOUR					
0116	Fitter (grade 1)	day	0.330	897.00	296.01	
0103	Blacksmith 2nd class	day	0.490	816.00	399.84	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.650	736.00	478.40	
	priming coat					
	50x0.58x0.11 = 3.19					
	5x0.42x0.063 = 1.32					
	Total=4.51sqm					
13.85.1	Rate as per item no 13.85.1 of SH : Finishing	sqm	4.510	70.35	317.28	A
9999	Sundries	L.S.	13.500	2.27	30.65	
	P/F expansion hold fasteners 6mm threaded dia= 50x4 Nos = 200 nos.					
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	200.000	36.75	7350.00	A
	TOTAL				12964.17	W
	Add 1 % Water charges on “W-A”				52.97	
	TOTAL				13017.14	X
	Add GST on “X-A” (multiplying factor 0.2127)				1137.92	
	TOTAL				14155.06	Y
	Add 15% CPOH on “Y-A”				973.17	
	TOTAL				15128.23	Z
	Add Cess @ 1% on “Z-A”				74.61	
	Cost of 50 Nos.				15202.84	
	Cost of each				304.06	
	Say				304.05	

17.77.2 Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 nos.					
	MATERIAL					
	M.S. flats 50x5mm= 50 x 0.81 = 40.5m					
	@ 1.97 kg/ metre = 79.8 kg.					
	M.S. flats 30x1.6mm =50x2x0.42 = 42m.					
	0.38kg/metre = 16kg.					
	Total = 95.8kg.					
	Add wastage 5% = 4.8kg.					
	Total = 100.6 kg.					
	M.S.flats= 100.6kg. = 1.006 quintal					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	1.006	5965.00	6000.79	
2205	Carriage of Steel	tonne	0.101	0.00	0.00	
	LABOUR					
0116	Fitter (grade 1)	day	0.480	897.00	430.56	
0103	Blacksmith 2nd class	day	0.720	816.00	587.52	
0114	Beldar	day	0.960	736.00	706.56	
	priming coat					
	50x0.81x0.11 = 4.46					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	50x2x0.42x0.063 = 2.65					
	Total =7.11sqm					
13.85.1	Rate as per item no 13.85.1 of SH : Finishing	sqm	7.110	70.35	500.19	A
9999	Sundries	L.S.	19.800	2.27	44.95	
	P/F expansion hold fasteners 6mm threaded dia = 50x4 Nos = 200 nos.					
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	200.000	36.75	7350.00	A
	TOTAL				15620.57	W
	Add 1 % Water charges on "W-A"				77.70	
	TOTAL				15698.27	X
	Add GST on "X-A" (multiplying factor 0.2127)				1669.29	
	TOTAL				17367.56	Y
	Add 15% CPOH on "Y-A"				1427.61	
	TOTAL				18795.17	Z
	Add Cess @ 1% on "Z-A"				109.45	
	Cost of 50 Nos.				18904.62	
	Cost of each				378.09	
	Say				378.10	

17.77.3 Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 nos.					
	MATERIAL					
	M.S. flats 50x5mm =50 x 1.04= 52m					
	@ 1.97 kg/ metre = 102.4 kg.					
	M.S. flats 30x1.6mm = 50x3x0.42 = 63m.					
	0.38kg/metre = 23.9kg.					
	Total = 126.3kg.					
	Add wastage 5% = 6.3kg.					
	Total = 132.6 kg.					
	M.S.flats =132.6kg. = 1.326 quintal					
1007	Structurals such as tees,angles channels and R.S. joists	quintal	1.326	5965.00	7909.59	
2205	Carriage of Steel	tonne	0.133	0.00	0.00	
	LABOUR					
0116	Fitter (grade 1)	day	0.630	897.00	565.11	
0103	Blacksmith 2nd class	day	0.950	816.00	775.20	
0114	Beldar	day	1.260	736.00	927.36	
	priming coat					
	50x1.04x0.11 = 5.72					
	50x3x0.42x0.063 = 3.97					
	Total=9.69sqm					
13.85.1	Rate as per item no 13.85.1 of SH : Finishing	sqm	9.690	70.35	681.69	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	26.000	2.27	59.02	
	P/F expansion hold fasteners 6mm threaded dia =50x4 Nos = 200 nos.					
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	200.000	36.75	7350.00	A
	TOTAL				18267.97	W
	Add 1 % Water charges on "W-A"				102.36	
	TOTAL				18370.33	X
	Add GST on "X-A" (multiplying factor 0.2127)				2199.03	
	TOTAL				20569.36	Y
	Add 15% CPOH on "Y-A"				1880.65	
	TOTAL				22450.01	Z
	Add Cess @ 1% on "Z-A"				144.18	
	Cost of 50 Nos.				22594.19	
	Cost of each				451.88	
	Say				451.90	

17.78 Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
7072	Wall mounted water closet	each	1.00	5940.00	5940.00	
7073	Adjustable Vetrious China Cistern with fittings	each	1.00	1600.00	1600.00	
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	451.00	451.00	
9977	Carriage of materials	L.S.	9.79	2.27	22.22	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				10543.22	W
	Add 1 % Water charges on "W"				105.43	
	TOTAL				10648.65	X
	Add GST on "X" (multiplying factor 0.2127)				2264.97	
	TOTAL				12913.62	Y
	Add 15% CPOH on "Y"				1937.04	
	TOTAL				14850.66	Z
	Add Cess @ 1% on "Z"				148.51	
	Cost of each				14999.17	
	Say				14999.15	

17.79 Providing & fixing white vitreous china water less urinal of size 600 x 330 x 315 mm having antibacterial /germs free ceramic surface, fixed with cartridge having debris catcher and hygiene seal.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
7074	White Vetrious China Waterless Urinal	each	1.00	9500.00	9500.00	
7075	Cistern with fittings for Waterless Urinal	each	1.00	2376.00	2376.00	
9977	Carriage of materials	L.S.	9.79	2.27	22.22	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				12714.72	W
	Add 1 % Water charges on "W"				127.15	
	TOTAL				12841.87	X
	Add GST on "X" (multiplying factor 0.2127)				2731.47	
	TOTAL				15573.34	Y
	Add 15% CPOH on "Y"				2336.00	
	TOTAL				17909.34	Z
	Add Cess @ 1% on "Z"				179.09	
	Cost of each				18088.43	
	Say				18088.45	

17.80 Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pan					
	MATERIAL					
7076	White Vetrious Urinal	each	1.00	4770.00	4770.00	
9977	Carriage of materials	L.S.	9.79	2.27	22.22	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
	TOTAL				5608.72	W
	Add 1 % Water charges on "W"				56.09	
	TOTAL				5664.81	X
	Add GST on "X" (multiplying factor 0.2127)				1204.91	
	TOTAL				6869.72	Y
	Add 15% CPOH on "Y"				1030.46	
	TOTAL				7900.18	Z
	Add Cess @ 1% on "Z"				79.00	
	Cost of each				7979.18	
	Say				7979.20	

17.81 Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litre with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
1966	Floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litre with dual flushing system including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc.	each	1.00	10250.00	10250.00	
9977	Carriage of material	L.S.	9.79	2.27	22.22	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0114	Beldar	day	1.00	736.00	736.00	
0123	Mason 1st class	day	1.00	897.00	897.00	
	TOTAL				12802.22	W
	Add 1 % Water charges on “W”				128.02	
	TOTAL				12930.24	X
	Add GST on “X” (multiplying factor 0.2127)				2750.26	
	TOTAL				15680.50	Y
	Add 15% CPOH on “Y”				2352.08	
	TOTAL				18032.58	Z
	Add Cess @ 1% on “Z”				180.33	
	Cost of each				18212.91	
	Say				18212.90	

SUB HEAD : 18.0
WATER SUPPLY

18.1 Providing and fixing Polyethelene-Aluminium-Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes testing of joints complete as per direction of the Engineer-in-charge.
INTERNAL WORK - EXPOSED ON WALL

18.1.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	53.00	530.00	P
	Add 30% for fittings and wastage etc. on (P)				159.00	
	30 x P / 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2015.53	W
	Add 1 % Water charges on “W”				20.16	
	TOTAL				2035.69	X
	Add GST on “X” (multiplying factor 0.2127)				432.99	
	TOTAL				2468.68	Y
	Add 15% CPOH on “Y”				370.30	
	TOTAL				2838.98	Z
	Add Cess @ 1% on “Z”				28.39	
	Cost of 10 metre				2867.37	
	Cost of 1 metre				286.74	
	Say				286.75	

18.1.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8301	1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	67.00	670.00	P
	Add 30% for fittings and wastage etc. on (P)				201.00	
	30 x P / 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.82	816.00	669.12	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2328.09	W
	Add 1 % Water charges on “W”				23.28	
	TOTAL				2351.37	X
	Add GST on “X” (multiplying factor 0.2127)				500.14	
	TOTAL				2851.51	Y
	Add 15% CPOH on “Y”				427.73	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				3279.24	Z
	Add Cess @ 1% on “Z”				32.79	
	Cost of 10 metre				3312.03	
	Cost of 1 metre				331.20	
	Say				331.20	

18.1.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	95.00	950.00	P
	Add 30% for fittings and wastage etc. on (P)				285.00	
	30 x P / 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2822.65	W
	Add 1 % Water charges on “W”				28.23	
	TOTAL				2850.88	X
	Add GST on “X” (multiplying factor 0.2127)				606.38	
	TOTAL				3457.26	Y
	Add 15% CPOH on “Y”				518.59	
	TOTAL				3975.85	Z
	Add Cess @ 1% on “Z”				39.76	
	Cost of 10 metre				4015.61	
	Cost of 1 metre				401.56	
	Say				401.55	

18.1.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8303	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	146.00	1460.00	P
	Add 30% for fittings and wastage etc. on (P)				438.00	
	30 x P / 100					
9999	Cement, sand and grit	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.98	736.00	721.28	
	TOTAL				3724.41	W
	Add 1 % Water charges on “W”				37.24	
	TOTAL				3761.65	X
	Add GST on “X” (multiplying factor 0.2127)				800.10	
	TOTAL				4561.75	Y
	Add 15% CPOH on “Y”				684.26	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				5246.01	Z
	Add Cess @ 1% on “Z”				52.46	
	Cost of 10 metre				5298.47	
	Cost of 1 metre				529.85	
	Say				529.85	

18.1.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8304	3240 mm PE-AL-PE Composit pressure pipe	metre	10.00	190.00	1900.00	P
	Add 30% for fittings and wastage etc. on (P)				570.00	
	30 x P / 100					
9999	Cement, sand and grit	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				4811.23	W
	Add 1 % Water charges on “W”				48.11	
	TOTAL				4859.34	X
	Add GST on “X” (multiplying factor 0.2127)				1033.58	
	TOTAL				5892.92	Y
	Add 15% CPOH on “Y”				883.94	
	TOTAL				6776.86	Z
	Add Cess @ 1% on “Z”				67.77	
	Cost of 10 metre				6844.63	
	Cost of 1 metre				684.46	
	Say				684.45	

18.1.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8305	4050 mm PE-AL-PE Composit pressure pipe	metre	10.00	328.00	3280.00	P
	Add 30% for fittings and wastage etc. on (P)				984.00	
	30 x P / 100					
9999	Cement, sand and grit	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				6605.23	W
	Add 1 % Water charges on “W”				66.05	
	TOTAL				6671.28	X
	Add GST on “X” (multiplying factor 0.2127)				1418.98	
	TOTAL				8090.26	Y
	Add 15% CPOH on “Y”				1213.54	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				9303.80	Z
	Add Cess @ 1% on "Z"				93.04	
	Cost of 10 metre				9396.84	
	Cost of 1 metre				939.68	
	Say				939.70	

18.2 Providing and fixing Polyethelene-Aluminium- Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge.

Concealed work, including cutting chases and making good the wall etc.

18.2.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	53.00	530.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				397.50	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4276.83	W
	Add 1 % Water charges on "W-A"				22.48	
	TOTAL				4299.31	X
	Add GST on "X-A" (multiplying factor 0.2127)				482.89	
	TOTAL				4782.20	Y
	Add 15% CPOH on "Y-A"				412.98	
	TOTAL				5195.18	Z
	Add Cess @ 1% on "Z-A"				31.66	
	Cost of 10 metre				5226.84	
	Cost of 1 metre				522.68	
	Say				522.70	

18.2.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8301	1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	67.00	670.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				502.50	
	75 * P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
18.78	Rate as per item no. 18.78 of SH: water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4521.83	W
	Add 1 % Water charges on “W-A”				24.93	
	TOTAL				4546.76	X
	Add GST on “X-A” (multiplying factor 0.2127)				535.53	
	TOTAL				5082.29	Y
	Add 15% CPOH on “Y-A”				457.99	
	TOTAL				5540.28	Z
	Add Cess @ 1% on “Z-A”				35.11	
	Cost of 10 metre				5575.39	
	Cost of 1 metre				557.54	
	Say				557.55	

18.2.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	95.00	950.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				712.50	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				5011.83	W
	Add 1 % Water charges on “W-A”				29.83	
	TOTAL				5041.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				640.79	
	TOTAL				5682.45	Y
	Add 15% CPOH on “Y-A”				548.02	
	TOTAL				6230.47	Z
	Add Cess @ 1% on “Z-A”				42.01	
	Cost of 10 metre				6272.48	
	Cost of 1 metre				627.25	
	Say				627.25	

18.2.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8303	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	146.00	1460.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				1095.00	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				5904.33	W
	Add 1 % Water charges on “W-A”				38.75	
	TOTAL				5943.08	X
	Add GST on “X-A” (multiplying factor 0.2127)				832.52	
	TOTAL				6775.60	Y
	Add 15% CPOH on “Y-A”				711.99	
	TOTAL				7487.59	Z
	Add Cess @ 1% on “Z-A”				54.59	
	Cost of 10 metre				7542.18	
	Cost of 1 metre				754.22	
	Say				754.20	

18.3 Providing and fixing Polyethelene-Aluminium- Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with trenching, refilling and testing of joints complete as per direction of the engineer in charge.

External work

18.3.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	53.00	530.00	P
	Add 30% for fittings and wastage etc. on (P)				159.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				1850.04	W
	Add 1 % Water charges on “W”				18.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1868.54	X
	Add GST on “X” (multiplying factor 0.2127)				397.44	
	TOTAL				2265.98	Y
	Add 15% CPOH on “Y”				339.90	
	TOTAL				2605.88	Z
	Add Cess @ 1% on “Z”				26.06	
	Cost of 10 metre				2631.94	
	Cost of 1 metre				263.19	
	Say				263.20	

18.3.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8301	1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	67.00	670.00	P
	Add 30% for fittings and wastage etc. on (P)				201.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2032.04	W
	Add 1 % Water charges on “W”				20.32	
	TOTAL				2052.36	X
	Add GST on “X” (multiplying factor 0.2127)				436.54	
	TOTAL				2488.90	Y
	Add 15% CPOH on “Y”				373.34	
	TOTAL				2862.24	Z
	Add Cess @ 1% on “Z”				28.62	
	Cost of 10 metre				2890.86	
	Cost of 1 metre				289.09	
	Say				289.10	

18.3.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	95.00	950.00	P
	Add 30% for fittings and wastage etc. on (P)				285.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2396.04	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				23.96	
	TOTAL				2420.00	X
	Add GST on “X” (multiplying factor 0.2127)				514.73	
	TOTAL				2934.73	Y
	Add 15% CPOH on “Y”				440.21	
	TOTAL				3374.94	Z
	Add Cess @ 1% on “Z”				33.75	
	Cost of 10 metre				3408.69	
	Cost of 1 metre				340.87	
	Say				340.85	

18.3.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8303	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	146.00	1460.00	P
	Add 30% for fittings and wastage etc. on (P)				438.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3059.04	W
	Add 1 % Water charges on “W”				30.59	
	TOTAL				3089.63	X
	Add GST on “X” (multiplying factor 0.2127)				657.16	
	TOTAL				3746.79	Y
	Add 15% CPOH on “Y”				562.02	
	TOTAL				4308.81	Z
	Add Cess @ 1% on “Z”				43.09	
	Cost of 10 metre				4351.90	
	Cost of 1 metre				435.19	
	Say				435.20	

18.3.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8304	3240 mm PE-AL-PE Composit pressure pipe	metre	10.00	190.00	1900.00	P
	Add 30% for fittings and wastage etc. on (P)				570.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3827.92	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				38.28	
	TOTAL				3866.20	X
	Add GST on “X” (multiplying factor 0.2127)				822.34	
	TOTAL				4688.54	Y
	Add 15% CPOH on “Y”				703.28	
	TOTAL				5391.82	Z
	Add Cess @ 1% on “Z”				53.92	
	Cost of 10 metre				5445.74	
	Cost of 1 metre				544.57	
	Say				544.55	

18.3.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8305	4050 mm PE-AL-PE Composit pressure pipe	metre	10.00	328.00	3280.00	P
	Add 30% for fittings and wastage etc. on (P)				984.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				5621.92	W
	Add 1 % Water charges on “W”				56.22	
	TOTAL				5678.14	X
	Add GST on “X” (multiplying factor 0.2127)				1207.74	
	TOTAL				6885.88	Y
	Add 15% CPOH on “Y”				1032.88	
	TOTAL				7918.76	Z
	Add Cess @ 1% on “Z”				79.19	
	Cost of 10 metre				7997.95	
	Cost of 1 metre				799.80	
	Say				799.80	

18.4 Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes conforming to IS:15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings and fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer-in-Charge.

Internal Exposed on walls

18.4.1 PN - 16 Pipe, 20mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	35.00	350.00	P
	Add 30% for fittings, clamps and wastage etc. on P, 30xP/100				105.00	
9999	Cement, Sand and grit	L.S.	2.73	2.27	6.20	
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0117	Assistant Fitter or 2nd class Fitter	day	0.82	816.00	669.12	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				1912.09	W
	Add 1 % Water charges on “W”				19.12	
	TOTAL				1931.21	X
	Add GST on “X” (multiplying factor 0.2127)				410.77	
	TOTAL				2341.98	Y
	Add 15% CPOH on “Y”				351.30	
	TOTAL				2693.28	Z
	Add Cess @ 1% on “Z”				26.93	
	Cost of 10 metre				2720.21	
	Cost of 1 metre				272.02	
	Say				272.00	

18.4.2 PN - 16 Pipe, 25mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	50.00	500.00	P
	Add 30% for fittings, clamps and wastage etc. on P, 30xP/100				150.00	
9999	Cement,Sand and grit	L.S.	2.73	2.27	6.20	
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2237.65	W
	Add 1 % Water charges on “W”				22.38	
	TOTAL				2260.03	X
	Add GST on “X” (multiplying factor 0.2127)				480.71	
	TOTAL				2740.74	Y
	Add 15% CPOH on “Y”				411.11	
	TOTAL				3151.85	Z
	Add Cess @ 1% on “Z”				31.52	
	Cost of 10 metre				3183.37	
	Cost of 1 metre				318.34	
	Say				318.35	

18.4.3 PN - 16 Pipe, 32mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	10.00	80.00	800.00	P
	Add 20% for fittings, clamps and wastage etc. on P, 20xP/100				160.00	
9999	Cement, Sand and grit	L.S.	4.16	2.27	9.44	
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.66	736.00	485.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2550.89	W
	Add 1 % Water charges on “W”				25.51	
	TOTAL				2576.40	X
	Add GST on “X” (multiplying factor 0.2127)				548.00	
	TOTAL				3124.40	Y
	Add 15% CPOH on “Y”				468.66	
	TOTAL				3593.06	Z
	Add Cess @ 1% on “Z”				35.93	
	Cost of 10 metre				3628.99	
	Cost of 1 metre				362.90	
	Say				362.90	

18.4.4 PN - 16 Pipe, 40mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8629	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia	metre	10.00	130.00	1300.00	P
	Add 15% for fittings, clamps and wastage etc. on P, 15xP/100				195.00	
9999	Cement, Sand and grit	L.S.	5.33	2.27	12.10	
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				3836.23	W
	Add 1 % Water charges on “W”				38.36	
	TOTAL				3874.59	X
	Add GST on “X” (multiplying factor 0.2127)				824.13	
	TOTAL				4698.72	Y
	Add 15% CPOH on “Y”				704.81	
	TOTAL				5403.53	Z
	Add Cess @ 1% on “Z”				54.04	
	Cost of 10 metre				5457.57	
	Cost of 1 metre				545.76	
	Say				545.75	

18.4.5 PN - 10 Pipe, 50mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8630	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia	metre	10.00	151.00	1510.00	P
	Add 15% for fittings, clamps and wastage etc. on P, 15xP/100				226.50	
9999	Cement, Sand and grit	L.S.	5.33	2.27	12.10	
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				4077.73	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				40.78	
	TOTAL				4118.51	X
	Add GST on “X” (multiplying factor 0.2127)				876.01	
	TOTAL				4994.52	Y
	Add 15% CPOH on “Y”				749.18	
	TOTAL				5743.70	Z
	Add Cess @ 1% on “Z”				57.44	
	Cost of 10 metre				5801.14	
	Cost of 1 metre				580.11	
	Say				580.10	

18.5 Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes conforming to IS:15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings and fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer-in-Charge.

Concealed work,including cutting chases and making good the wall etc.

18.5.1 PN - 16 Pipe, 20mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	35.00	350.00	P
	Add 75% for fittings, clamps and wastage etc. on P, 75xP/100				262.50	
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per Item Number 18.78 of SH: Water supply	metre	10.00	202.90	2029.00	A
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				3961.83	W
	Add 1 % Water charges on “W-A”				19.33	
	TOTAL				3981.16	X
	Add GST on “X-A” (multiplying factor 0.2127)				415.22	
	TOTAL				4396.38	Y
	Add 15% CPOH on “Y-A”				355.11	
	TOTAL				4751.49	Z
	Add Cess @ 1% on “Z-A”				27.22	
	Cost of 10 metre				4778.71	
	Cost of 1 metre				477.87	
	Say				477.85	

18.5.2 PN - 16 Pipe, 25mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	50.00	500.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 75% for fittings, clamps and wastage etc. on P, 75xP/100				375.00	
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per Item Number 18.78 of SH:					
	Water supply	metre	10.00	202.90	2029.00	A
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4224.33	W
	Add 1 % Water charges on “W-A”				21.95	
	TOTAL				4246.28	X
	Add GST on “X-A” (multiplying factor 0.2127)				471.62	
	TOTAL				4717.90	Y
	Add 15% CPOH on “Y-A”				403.34	
	TOTAL				5121.24	Z
	Add Cess @ 1% on “Z-A”				30.92	
	Cost of 10 metre				5152.16	
	Cost of 1 metre				515.22	
	Say				515.20	

18.5.3 PN - 16 Pipe, 32mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	10.00	80.00	800.00	P
	Add 50% for fittings, clamps and wastage etc. on P, 50xP/100				400.00	
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per Item Number 18.78 of SH:					
	Water supply	metre	10.00	202.90	2029.00	A
	LABOUR:					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4549.33	W
	Add 1 % Water charges on “W-A”				25.20	
	TOTAL				4574.53	X
	Add GST on “X-A” (multiplying factor 0.2127)				541.43	
	TOTAL				5115.96	Y
	Add 15% CPOH on “Y-A”				463.04	
	TOTAL				5579.00	Z
	Add Cess @ 1% on “Z-A”				35.50	
	Cost of 10 metre				5614.50	
	Cost of 1 metre				561.45	
	Say				561.45	

18.6 Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes conforming to IS:15801 UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, including trenching, refilling & testing of joints complete as per direction of Engineer-in-Charge.

External work

18.6.1 PN - 16 Pipe, 20mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	35.00	350.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				70.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				1581.04	W
	Add 1 % Water charges on “W”				15.81	
	TOTAL				1596.85	X
	Add GST on “X” (multiplying factor 0.2127)				339.65	
	TOTAL				1936.50	Y
	Add 15% CPOH on “Y”				290.48	
	TOTAL				2226.98	Z
	Add Cess @ 1% on “Z”				22.27	
	Cost of 10 metre				2249.25	
	Cost of 1 metre				224.93	
	Say				224.95	

18.6.2 PN - 16 Pipe, 25 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	50.00	500.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				100.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0114	Beldar	day	0.25	736.00	184.00	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				1863.16	W
	Add 1 % Water charges on “W”				18.63	
	TOTAL				1881.79	X
	Add GST on “X” (multiplying factor 0.2127)				400.26	
	TOTAL				2282.05	Y
	Add 15% CPOH on “Y”				342.31	
	TOTAL				2624.36	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on “Z”				26.24	
	Cost of 10 metre				2650.60	
	Cost of 1 metre				265.06	
	Say				265.05	

18.6.3 PN - 16 Pipe, 32 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	10.00	80.00	800.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				160.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0114	Beldar	day	0.25	736.00	184.00	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2223.16	W
	Add 1 % Water charges on “W”				22.23	
	TOTAL				2245.39	X
	Add GST on “X” (multiplying factor 0.2127)				477.59	
	TOTAL				2722.98	Y
	Add 15% CPOH on “Y”				408.45	
	TOTAL				3131.43	Z
	Add Cess @ 1% on “Z”				31.31	
	Cost of 10 metre				3162.74	
	Cost of 1 metre				316.27	
	Say				316.25	

18.6.4 PN - 16 Pipe, 40 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8629	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia	metre	10.00	130.00	1300.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				260.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2917.92	W
	Add 1 % Water charges on “W”				29.18	
	TOTAL				2947.10	X
	Add GST on “X” (multiplying factor 0.2127)				626.85	
	TOTAL				3573.95	Y
	Add 15% CPOH on “Y”				536.09	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				4110.04	Z
	Add Cess @ 1% on “Z”				41.10	
	Cost of 10 metre				4151.14	
	Cost of 1 metre				415.11	
	Say				415.10	

18.6.5 PN - 10 Pipe, 50 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8630	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia	metre	10.00	151.00	1510.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				302.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3169.92	W
	Add 1 % Water charges on “W”				31.70	
	TOTAL				3201.62	X
	Add GST on “X” (multiplying factor 0.2127)				680.98	
	TOTAL				3882.60	Y
	Add 15% CPOH on “Y”				582.39	
	TOTAL				4464.99	Z
	Add Cess @ 1% on “Z”				44.65	
	Cost of 10 metre				4509.64	
	Cost of 1 metre				450.96	
	Say				450.95	

18.6.6 PN - 10 Pipe, 63 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8631	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 63 mm Outer dia	metre	10.00	210.00	2100.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				420.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.66	736.00	485.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	coolie	day	0.66	736.00	485.76	
	TOTAL				4201.53	W
	Add 1 % Water charges on “W”				42.02	
	TOTAL				4243.55	X
	Add GST on “X” (multiplying factor 0.2127)				902.60	
	TOTAL				5146.15	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				771.92	
	TOTAL				5918.07	Z
	Add Cess @ 1% on "Z"				59.18	
	Cost of 10 metre				5977.25	
	Cost of 1 metre				597.73	
	Say				597.75	

18.6.7 PN - 10 Pipe, 75 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8632	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 75 mm Outer dia	metre	10.00	268.00	2680.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				536.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.66	736.00	485.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				4897.53	W
	Add 1 % Water charges on "W"				48.98	
	TOTAL				4946.51	X
	Add GST on "X" (multiplying factor 0.2127)				1052.12	
	TOTAL				5998.63	Y
	Add 15% CPOH on "Y"				899.79	
	TOTAL				6898.42	Z
	Add Cess @ 1% on "Z"				68.98	
	Cost of 10 metre				6967.40	
	Cost of 1 metre				696.74	
	Say				696.75	

18.6.8 PN - 10 Pipe, 90 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8633	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 90 mm Outer dia	metre	10.00	386.00	3860.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				772.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.37	897.00	331.89	
0114	Beldar	day	0.97	736.00	713.92	
	Trenching and refilling etc.					
0114	Beldar	day	0.80	736.00	588.80	
0115	Beldar	day	0.80	736.00	588.80	
	TOTAL				6855.41	W
	Add 1 % Water charges on "W"				68.55	
	TOTAL				6923.96	X
	Add GST on "X" (multiplying factor 0.2127)				1472.73	
	TOTAL				8396.69	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				1259.50	
	TOTAL				9656.19	Z
	Add Cess @ 1% on "Z"				96.56	
	Cost of 10 metre				9752.75	
	Cost of 1 metre				975.28	
	Say				975.30	

18.6.9 PN - 10 Pipe, 110 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8634	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 110 mm Outer dia	metre	10.00	577.00	5770.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				1154.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.37	897.00	331.89	
0114	Beldar	day	0.97	736.00	713.92	
	Trenching and refilling etc.					
0114	Beldar	day	0.80	736.00	588.80	
0115	Coolie	day	0.80	736.00	588.80	
	TOTAL				9147.41	W
	Add 1 % Water charges on "W"				91.47	
	TOTAL				9238.88	X
	Add GST on "X" (multiplying factor 0.2127)				1965.11	
	TOTAL				11203.99	Y
	Add 15% CPOH on "Y"				1680.60	
	TOTAL				12884.59	Z
	Add Cess @ 1% on "Z"				128.85	
	Cost of 10 metre				13013.44	
	Cost of 1 metre				1301.34	
	Say				1301.35	

18.6.10 PN - 10 Pipe, 160 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL:					
8635	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 160 mm Outer dia	metre	10.00	1324.00	13240.00	P
	Add 20% for fittings and wastage etc. on P, 20xP/100				2648.00	
	LABOUR:					
0116	Fitter (grade 1)	day	0.58	897.00	520.26	
0114	Beldar	day	1.54	736.00	1133.44	
	Trenching and refilling etc.					
0114	Beldar	day	1.20	736.00	883.20	
0115	Coolie	day	1.20	736.00	883.20	
	TOTAL				19308.10	W
	Add 1 % Water charges on "W"				193.08	
	TOTAL				19501.18	X
	Add GST on "X" (multiplying factor 0.2127)				4147.90	
	TOTAL				23649.08	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on “Y”				3547.36	
	TOTAL				27196.44	Z
	Add Cess @ 1% on “Z”				271.96	
	Cost of 10 metre				27468.40	
	Cost of 1 metre				2746.84	
	Say				2746.85	

18.6A Providing and fixing PPR Unions

18.6A.1 PPR Union 20mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8306	PPR Union 20mm	each	1.00	38.00	38.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				221.76	W
	Add 1 % Water charges on “W”				2.22	
	TOTAL				223.98	X
	Add GST on “X” (multiplying factor 0.2127)				47.64	
	TOTAL				271.62	Y
	Add 15% CPOH on “Y”				40.74	
	TOTAL				312.36	Z
	Add Cess @ 1% on “Z”				3.12	
	Cost of 1 No				315.48	
	Say				315.50	

18.6A.2 PPR Union 25mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8307	PPR Union 25mm	each	1.00	51.00	51.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				234.76	W
	Add 1 % Water charges on “W”				2.35	
	TOTAL				237.11	X
	Add GST on “X” (multiplying factor 0.2127)				50.43	
	TOTAL				287.54	Y
	Add 15% CPOH on “Y”				43.13	
	TOTAL				330.67	Z
	Add Cess @ 1% on “Z”				3.31	
	Cost of 1 No				333.98	
	Say				334.00	

18.6A.3 PPR Union 32mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8308	PPR Union 32mm	each	1.00	100.00	100.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				283.76	W
	Add 1 % Water charges on “W”				2.84	
	TOTAL				286.60	X
	Add GST on “X” (multiplying factor 0.2127)				60.96	
	TOTAL				347.56	Y
	Add 15% CPOH on “Y”				52.13	
	TOTAL				399.69	Z
	Add Cess @ 1% on “Z”				4.00	
	Cost of 1 No				403.69	
	Say				403.70	

18.6A.4 PPR Union 40mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8309	PPR Union 40mm	each	1.00	198.00	198.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				381.76	W
	Add 1 % Water charges on “W”				3.82	
	TOTAL				385.58	X
	Add GST on “X” (multiplying factor 0.2127)				82.01	
	TOTAL				467.59	Y
	Add 15% CPOH on “Y”				70.14	
	TOTAL				537.73	Z
	Add Cess @ 1% on “Z”				5.38	
	Cost of 1 No				543.11	
	Say				543.10	

18.6A.5 PPR Union 50mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8310	PPR Union 50mm	each	1.00	366.00	366.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				549.76	W
	Add 1 % Water charges on “W”				5.50	
	TOTAL				555.26	X
	Add GST on “X” (multiplying factor 0.2127)				118.10	
	TOTAL				673.36	Y
	Add 15% CPOH on “Y”				101.00	
	TOTAL				774.36	Z
	Add Cess @ 1% on “Z”				7.74	
	Cost of 1 No				782.10	
	Say				782.10	

18.6A.6 PPR Union 63mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8311	PPR Union 63mm	each	1.00	458.00	458.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				641.76	W
	Add 1 % Water charges on “W”				6.42	
	TOTAL				648.18	X
	Add GST on “X” (multiplying factor 0.2127)				137.87	
	TOTAL				786.05	Y
	Add 15% CPOH on “Y”				117.91	
	TOTAL				903.96	Z
	Add Cess @ 1% on “Z”				9.04	
	Cost of 1 No				913.00	
	Say				913.00	

18.6A.7 PPR Union 75mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL:					
8312	PPR Union 75mm	each	1.00	1000.00	1000.00	
9999	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR:					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				1183.76	W
	Add 1 % Water charges on “W”				11.84	
	TOTAL				1195.60	X
	Add GST on “X” (multiplying factor 0.2127)				254.30	
	TOTAL				1449.90	Y
	Add 15% CPOH on “Y”				217.49	
	TOTAL				1667.39	Z
	Add Cess @ 1% on “Z”				16.67	
	Cost of 1 No				1684.06	
	Say				1684.05	

18.7 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply and all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.

Internal work - Exposed on wall

18.7.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	43.00	430.00	P
	Add 30% for fittings and wastage etc. on (P)				129.00	
	30 x P / 100					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Cement, sand and grit etc.	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.82	816.00	669.12	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2016.09	W
	Add 1 % Water charges on “W”				20.16	
	TOTAL				2036.25	X
	Add GST on “X” (multiplying factor 0.2127)				433.11	
	TOTAL				2469.36	Y
	Add 15% CPOH on “Y”				370.40	
	TOTAL				2839.76	Z
	Add Cess @ 1% on “Z”				28.40	
	Cost of 10 metre				2868.16	
	Cost of 1 metre				286.82	
	Say				286.80	

18.7.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	59.00	590.00	P
	Add 30% for fittings and wastage etc. on (P)				177.00	
	30 x P / 100					
9999	Cement, sand and grit etc.	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2354.65	W
	Add 1 % Water charges on “W”				23.55	
	TOTAL				2378.20	X
	Add GST on “X” (multiplying factor 0.2127)				505.84	
	TOTAL				2884.04	Y
	Add 15% CPOH on “Y”				432.61	
	TOTAL				3316.65	Z
	Add Cess @ 1% on “Z”				33.17	
	Cost of 10 metre				3349.82	
	Cost of 1 metre				334.98	
	Say				335.00	

18.7.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	95.00	950.00	P
	Add 30% for fittings and wastage etc. on (P)				285.00	
	30 x P / 100					
9999	Cement, sand and grit etc.	L.S.	2.73	2.27	6.20	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2822.65	W
	Add 1 % Water charges on “W”				28.23	
	TOTAL				2850.88	X
	Add GST on “X” (multiplying factor 0.2127)				606.38	
	TOTAL				3457.26	Y
	Add 15% CPOH on “Y”				518.59	
	TOTAL				3975.85	Z
	Add Cess @ 1% on “Z”				39.76	
	Cost of 10 metre				4015.61	
	Cost of 1 metre				401.56	
	Say				401.55	

18.7.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	140.00	1400.00	P
	Add 30% for fittings and wastage etc. on (P)				420.00	
	30 x P / 100					
9999	Cement, sand and grit etc.	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.98	736.00	721.28	
	TOTAL				3646.41	W
	Add 1 % Water charges on “W”				36.46	
	TOTAL				3682.87	X
	Add GST on “X” (multiplying factor 0.2127)				783.35	
	TOTAL				4466.22	Y
	Add 15% CPOH on “Y”				669.93	
	TOTAL				5136.15	Z
	Add Cess @ 1% on “Z”				51.36	
	Cost of 10 metre				5187.51	
	Cost of 1 metre				518.75	
	Say				518.75	

18.7.5 40 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm nominal dia.	metre	10.00	200.00	2000.00	P
	Add 30% for fittings and wastage etc. on (P)				600.00	
	30 x P / 100					
9999	Cement, sand and grit etc.	L.S.	5.33	2.27	12.10	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				4941.23	W
	Add 1 % Water charges on “W”				49.41	
	TOTAL				4990.64	X
	Add GST on “X” (multiplying factor 0.2127)				1061.51	
	TOTAL				6052.15	Y
	Add 15% CPOH on “Y”				907.82	
	TOTAL				6959.97	Z
	Add Cess @ 1% on “Z”				69.60	
	Cost of 10 metre				7029.57	
	Cost of 1 metre				702.96	
	Say				702.95	

18.7.6 50 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm nominal dia.	metre	10.00	325.00	3250.00	P
	Add 30% for fittings and wastage etc. on (P)				975.00	
	30 x P / 100					
9999	Cement, sand and grit etc.	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				6566.23	W
	Add 1 % Water charges on “W”				65.66	
	TOTAL				6631.89	X
	Add GST on “X” (multiplying factor 0.2127)				1410.60	
	TOTAL				8042.49	Y
	Add 15% CPOH on “Y”				1206.37	
	TOTAL				9248.86	Z
	Add Cess @ 1% on “Z”				92.49	
	Cost of 10 metre				9341.35	
	Cost of 1 metre				934.14	
	Say				934.15	

18.8 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.
Concealed work, including cutting chases and making good the walls etc.

18.8.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	43.00	430.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 75% for fittings, clamps and wastage etc. on (P)				322.50	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4101.83	W
	Add 1 % Water charges on “W-A”				20.73	
	TOTAL				4122.56	X
	Add GST on “X-A” (multiplying factor 0.2127)				445.30	
	TOTAL				4567.86	Y
	Add 15% CPOH on “Y-A”				380.83	
	TOTAL				4948.69	Z
	Add Cess @ 1% on “Z-A”				29.20	
	Cost of 10 metre				4977.89	
	Cost of 1 metre				497.79	
	Say				497.80	

18.8.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	59.00	590.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				442.50	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4381.83	W
	Add 1 % Water charges on “W-A”				23.53	
	TOTAL				4405.36	X
	Add GST on “X-A” (multiplying factor 0.2127)				505.45	
	TOTAL				4910.81	Y
	Add 15% CPOH on “Y-A”				432.27	
	TOTAL				5343.08	Z
	Add Cess @ 1% on “Z-A”				33.14	
	Cost of 10 metre				5376.22	
	Cost of 1 metre				537.62	
	Say				537.60	

18.8.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	95.00	950.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				712.50	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				5011.83	W
	Add 1 % Water charges on “W-A”				29.83	
	TOTAL				5041.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				640.79	
	TOTAL				5682.45	Y
	Add 15% CPOH on “Y-A”				548.02	
	TOTAL				6230.47	Z
	Add Cess @ 1% on “Z-A”				42.01	
	Cost of 10 metre				6272.48	
	Cost of 1 metre				627.25	
	Say				627.25	

18.8.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	140.00	1400.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				1050.00	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				5799.33	W
	Add 1 % Water charges on “W-A”				37.70	
	TOTAL				5837.03	X
	Add GST on “X-A” (multiplying factor 0.2127)				809.97	
	TOTAL				6647.00	Y
	Add 15% CPOH on “Y-A”				692.70	
	TOTAL				7339.70	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z-A"				53.11	
	Cost of 10 metre				7392.81	
	Cost of 1 metre				739.28	
	Say				739.30	

18.9 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.

External work

18.9.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	43.00	430.00	P
	Add 30% for fittings and wastage etc. on (P)				129.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				1720.04	W
	Add 1 % Water charges on "W"				17.20	
	TOTAL				1737.24	X
	Add GST on "X" (multiplying factor 0.2127)				369.51	
	TOTAL				2106.75	Y
	Add 15% CPOH on "Y"				316.01	
	TOTAL				2422.76	Z
	Add Cess @ 1% on "Z"				24.23	
	Cost of 10 metre				2446.99	
	Cost of 1 metre				244.70	
	Say				244.70	

18.9.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	59.00	590.00	P
	Add 30% for fittings and wastage etc. on (P)				177.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				1928.04	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				19.28	
	TOTAL				1947.32	X
	Add GST on “X” (multiplying factor 0.2127)				414.19	
	TOTAL				2361.51	Y
	Add 15% CPOH on “Y”				354.23	
	TOTAL				2715.74	Z
	Add Cess @ 1% on “Z”				27.16	
	Cost of 10 metre				2742.90	
	Cost of 1 metre				274.29	
	Say				274.30	

18.9.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	95.00	950.00	P
	Add 30% for fittings and wastage etc. on (P)				285.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0114	Beldar	day	0.25	736.00	184.00	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2498.16	W
	Add 1 % Water charges on “W”				24.98	
	TOTAL				2523.14	X
	Add GST on “X” (multiplying factor 0.2127)				536.67	
	TOTAL				3059.81	Y
	Add 15% CPOH on “Y”				458.97	
	TOTAL				3518.78	Z
	Add Cess @ 1% on “Z”				35.19	
	Cost of 10 metre				3553.97	
	Cost of 1 metre				355.40	
	Say				355.40	

18.9.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	140.00	1400.00	P
	Add 30% for fittings and wastage etc. on (P)				420.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0114	Beldar	day	0.25	736.00	184.00	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3083.16	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				30.83	
	TOTAL				3113.99	X
	Add GST on “X” (multiplying factor 0.2127)				662.35	
	TOTAL				3776.34	Y
	Add 15% CPOH on “Y”				566.45	
	TOTAL				4342.79	Z
	Add Cess @ 1% on “Z”				43.43	
	Cost of 10 metre				4386.22	
	Cost of 1 metre				438.62	
	Say				438.60	

18.9.5 40 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm nominal dia.	metre	10.00	200.00	2000.00	P
	Add 30% for fittings and wastage etc. on (P)				600.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3957.92	W
	Add 1 % Water charges on “W”				39.58	
	TOTAL				3997.50	X
	Add GST on “X” (multiplying factor 0.2127)				850.27	
	TOTAL				4847.77	Y
	Add 15% CPOH on “Y”				727.17	
	TOTAL				5574.94	Z
	Add Cess @ 1% on “Z”				55.75	
	Cost of 10 metre				5630.69	
	Cost of 1 metre				563.07	
	Say				563.05	

18.9.6 50 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm nominal dia.	metre	10.00	325.00	3250.00	P
	Add 30% for fittings and wastage etc. on (P)				975.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				5582.92	W
	Add 1 % Water charges on “W”				55.83	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				5638.75	X
	Add GST on “X” (multiplying factor 0.2127)				1199.36	
	TOTAL				6838.11	Y
	Add 15% CPOH on “Y”				1025.72	
	TOTAL				7863.83	Z
	Add Cess @ 1% on “Z”				78.64	
	Cost of 10 metre				7942.47	
	Cost of 1 metre				794.25	
	Say				794.25	

18.9.7 65 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8642	Chlorinated Polyvinyl - chloride (CPVC) pipe 65 mm nominal dia.	metre	10.00	776.00	7760.00	P
	Add 30% for fittings and wastage etc. on (P)				2328.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.66	736.00	485.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				11769.53	W
	Add 1 % Water charges on “W”				117.70	
	TOTAL				11887.23	X
	Add GST on “X” (multiplying factor 0.2127)				2528.41	
	TOTAL				14415.64	Y
	Add 15% CPOH on “Y”				2162.35	
	TOTAL				16577.99	Z
	Add Cess @ 1% on “Z”				165.78	
	Cost of 10 metre				16743.77	
	Cost of 1 metre				1674.38	
	Say				1674.40	

18.9.8 80 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8643	Chlorinated Polyvinyl - chloride (CPVC) pipe 80 mm nominal dia.	metre	10.00	1042.00	10420.00	P
	Add 30% for fittings and wastage etc. on (P)				3126.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.66	736.00	485.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				15227.53	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				152.28	
	TOTAL				15379.81	X
	Add GST on “X” (multiplying factor 0.2127)				3271.29	
	TOTAL				18651.10	Y
	Add 15% CPOH on “Y”				2797.67	
	TOTAL				21448.77	Z
	Add Cess @ 1% on “Z”				214.49	
	Cost of 10 metre				21663.26	
	Cost of 1 metre				2166.33	
	Say				2166.35	

18.9.9 100 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8644	Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm nominal dia.	metre	10.00	1598.00	15980.00	P
	Add 30% for fittings and wastage etc. on (P)				4794.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.37	897.00	331.89	
0114	Beldar	day	0.97	736.00	713.92	
	Trenching and refilling etc.					
0114	Beldar	day	0.80	736.00	588.80	
0115	Coolie	day	0.80	736.00	588.80	
	TOTAL				22997.41	W
	Add 1 % Water charges on “W”				229.97	
	TOTAL				23227.38	X
	Add GST on “X” (multiplying factor 0.2127)				4940.46	
	TOTAL				28167.84	Y
	Add 15% CPOH on “Y”				4225.18	
	TOTAL				32393.02	Z
	Add Cess @ 1% on “Z”				323.93	
	Cost of 10 metre				32716.95	
	Cost of 1 metre				3271.70	
	Say				3271.70	

18.9.10 150 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8645	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm nominal dia.	metre	10.00	3426.00	34260.00	P
	Add 30% for fittings and wastage etc. on (P)				10278.00	
	30 x P / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.58	897.00	520.26	
0114	Beldar	day	1.54	736.00	1133.44	
	Trenching and refilling etc.					
0114	Beldar	day	1.20	736.00	883.20	
0115	Coolie	day	1.20	736.00	883.20	
	TOTAL				47958.10	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				479.58	
	TOTAL				48437.68	X
	Add GST on “X” (multiplying factor 0.2127)				10302.69	
	TOTAL				58740.37	Y
	Add 15% CPOH on “Y”				8811.06	
	TOTAL				67551.43	Z
	Add Cess @ 1% on “Z”				675.51	
	Cost of 10 metre				68226.94	
	Cost of 1 metre				6822.69	
	Say				6822.70	

18.10 Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc.

Internal work - Exposed on wall

18.10.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1545	G.I. pipes 15 mm dia	metre	11.50	107.00	1230.50	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 12.30 = 14 kg = 0.014 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	8.06	2.27	18.30	
9999	Cement, sand and grit etc.	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2575.33	W
	Add 1 % Water charges on “W”				25.75	
	TOTAL				2601.08	X
	Add GST on “X” (multiplying factor 0.2127)				553.25	
	TOTAL				3154.33	Y
	Add 15% CPOH on “Y”				473.15	
	TOTAL				3627.48	Z
	Add Cess @ 1% on “Z”				36.27	
	Cost of 10 metre				3663.75	
	Cost of 1 metre				366.38	
	Say				366.40	

18.10.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1546	G.I. pipes 20 mm dia	metre	11.50	139.00	1598.50	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 15.90= 18 kg = 0.018 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	8.06	2.27	18.30	
9999	Cement, sand and grit etc.	L.S.	2.73	2.27	6.20	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.82	816.00	669.12	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				3073.89	W
	Add 1 % Water charges on “W”				30.74	
	TOTAL				3104.63	X
	Add GST on “X” (multiplying factor 0.2127)				660.35	
	TOTAL				3764.98	Y
	Add 15% CPOH on “Y”				564.75	
	TOTAL				4329.73	Z
	Add Cess @ 1% on “Z”				43.30	
	Cost of 10 metre				4373.03	
	Cost of 1 metre				437.30	
	Say				437.30	

18.10.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1547	G.I. pipes 25 mm dia	metre	11.50	197.00	2265.50	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 24.60 = 28 kg = 0.028 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.028	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	9.49	2.27	21.54	
9999	Cement, sand and grit etc.	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				3877.93	W
	Add 1 % Water charges on “W”				38.78	
	TOTAL				3916.71	X
	Add GST on “X” (multiplying factor 0.2127)				833.08	
	TOTAL				4749.79	Y
	Add 15% CPOH on “Y”				712.47	
	TOTAL				5462.26	Z
	Add Cess @ 1% on “Z”				54.62	
	Cost of 10 metre				5516.88	
	Cost of 1 metre				551.69	
	Say				551.70	

18.10.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1548	G.I. pipes 32 mm dia	metre	11.50	247.00	2840.50	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 31.70 = 36 kg = 0.036 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.036	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	9.49	2.27	21.54	
9999	Cement, sand and grit etc.	L.S.	4.16	2.27	9.44	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.98	816.00	799.68	
0114	Beldar	day	0.98	736.00	721.28	
	TOTAL				4688.45	W
	Add 1 % Water charges on “W”				46.88	
	TOTAL				4735.33	X
	Add GST on “X” (multiplying factor 0.2127)				1007.20	
	TOTAL				5742.53	Y
	Add 15% CPOH on “Y”				861.38	
	TOTAL				6603.91	Z
	Add Cess @ 1% on “Z”				66.04	
	Cost of 10 metre				6669.95	
	Cost of 1 metre				667.00	
	Say				667.00	

18.10.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1549	G.I. pipes 40 mm dia	metre	11.50	290.00	3335.00	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 36.50 = 42 kg = 0.042 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.042	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	13.52	2.27	30.69	
9999	Cement, sand and grit etc.	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	816.00	1068.96	
0114	Beldar	day	1.31	736.00	964.16	
	TOTAL				5706.92	W
	Add 1 % Water charges on “W”				57.07	
	TOTAL				5763.99	X
	Add GST on “X” (multiplying factor 0.2127)				1226.00	
	TOTAL				6989.99	Y
	Add 15% CPOH on “Y”				1048.50	
	TOTAL				8038.49	Z
	Add Cess @ 1% on “Z”				80.38	
	Cost of 10 metre				8118.87	
	Cost of 1 metre				811.89	
	Say				811.90	

18.10.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1550	G.I. pipes 50 mm dia	metre	11.50	390.00	4485.00	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 51.70 = 59 kg = 0.059 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.059	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Cement, sand and grit etc.	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	1.64	816.00	1338.24	
0114	Beldar	day	1.64	736.00	1207.04	
	TOTAL				7369.08	W
	Add 1 % Water charges on “W”				73.69	
	TOTAL				7442.77	X
	Add GST on “X” (multiplying factor 0.2127)				1583.08	
	TOTAL				9025.85	Y
	Add 15% CPOH on “Y”				1353.88	
	TOTAL				10379.73	Z
	Add Cess @ 1% on “Z”				103.80	
	Cost of 10 metre				10483.53	
	Cost of 1 metre				1048.35	
	Say				1048.35	

18.11 Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, including making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :

18.11.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1545	G.I. pipes 15 mm dia	metre	11.50	107.00	1230.50	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 12.30 = 14 kg = 0.014 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	8.06	2.27	18.30	
	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats					
18.40.1	(Rate same as per item no. 18.40.1)	metre	10.00	12.05	120.50	A
	Making chases upto 7.5x7.5cm in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4718.63	W
	Add 1 % Water charges on “W-A”				25.69	
	TOTAL				4744.32	X
	Add GST on “X-A” (multiplying factor 0.2127)				551.92	
	TOTAL				5296.24	Y
	Add 15% CPOH on “Y-A”				472.01	
	TOTAL				5768.25	Z
	Add Cess @ 1% on “Z-A”				36.19	
	Cost of 10 metre				5804.44	
	Cost of 1 metre				580.44	
	Say				580.45	

18.11.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1546	G.I. pipes 20 mm dia	metre	11.50	139.00	1598.50	
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 15.90= 18 kg = 0.018 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	8.06	2.27	18.30	
	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats					
18.40.2	(Rate same as per item no. 18.40.2 Of SH Water Supply)	metre	10.00	14.45	144.50	A
	Making chases upto 7.5x7.5cm in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH Water Supply	metre	10.00	202.90	2029.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				5110.63	W
	Add 1 % Water charges on “W-A”				29.37	
	TOTAL				5140.00	X
	Add GST on “X-A” (multiplying factor 0.2127)				630.97	
	TOTAL				5770.97	Y
	Add 15% CPOH on “Y-A”				539.62	
	TOTAL				6310.59	Z
	Add Cess @ 1% on “Z-A”				41.37	
	Cost of 10 metre				6351.96	
	Cost of 1 metre				635.20	
	Say				635.20	

18.12 Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work

18.12.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1545	G.I. pipes 15 mm dia	metre	10.20	107.00	1091.40	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 12.30 = 13 kg = 0.013 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.013	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2264.54	W
	Add 1 % Water charges on “W”				22.65	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2287.19	X
	Add GST on “X” (multiplying factor 0.2127)				486.49	
	TOTAL				2773.68	Y
	Add 15% CPOH on “Y”				416.05	
	TOTAL				3189.73	Z
	Add Cess @ 1% on “Z”				31.90	
	Cost of 10 metre				3221.63	
	Cost of 1 metre				322.16	
	Say				322.15	

18.12.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1546	G.I. pipes 20 mm dia	metre	10.20	139.00	1417.80	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 15.90 = 16 kg = 0.016 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.016	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.16	736.00	117.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				2590.94	W
	Add 1 % Water charges on “W”				25.91	
	TOTAL				2616.85	X
	Add GST on “X” (multiplying factor 0.2127)				556.60	
	TOTAL				3173.45	Y
	Add 15% CPOH on “Y”				476.02	
	TOTAL				3649.47	Z
	Add Cess @ 1% on “Z”				36.49	
	Cost of 10 metre				3685.96	
	Cost of 1 metre				368.60	
	Say				368.60	

18.12.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1547	G.I. pipes 25 mm dia	metre	10.20	197.00	2009.40	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 24.60 = 25 kg = 0.025 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.025	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	6.76	2.27	15.35	
	LABOUR					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0114	Beldar	day	0.25	736.00	184.00	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3287.91	W
	Add 1 % Water charges on “W”				32.88	
	TOTAL				3320.79	X
	Add GST on “X” (multiplying factor 0.2127)				706.33	
	TOTAL				4027.12	Y
	Add 15% CPOH on “Y”				604.07	
	TOTAL				4631.19	Z
	Add Cess @ 1% on “Z”				46.31	
	Cost of 10 metre				4677.50	
	Cost of 1 metre				467.75	
	Say				467.75	

18.12.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1548	G.I. pipes 32 mm dia	metre	10.20	247.00	2519.40	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 31.70 = 32 kg = 0.032 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.032	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	6.76	2.27	15.35	
	LABOUR					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0114	Beldar	day	0.25	736.00	184.00	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				3797.91	W
	Add 1 % Water charges on “W”				37.98	
	TOTAL				3835.89	X
	Add GST on “X” (multiplying factor 0.2127)				815.89	
	TOTAL				4651.78	Y
	Add 15% CPOH on “Y”				697.77	
	TOTAL				5349.55	Z
	Add Cess @ 1% on “Z”				53.50	
	Cost of 10 metre				5403.05	
	Cost of 1 metre				540.31	
	Say				540.30	

18.12.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1549	G.I. pipes 40 mm dia	metre	10.20	290.00	2958.00	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 36.50 = 37 kg = 0.037 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.037	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	9.49	2.27	21.54	
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				4337.46	W
	Add 1 % Water charges on “W”				43.37	
	TOTAL				4380.83	X
	Add GST on “X” (multiplying factor 0.2127)				931.80	
	TOTAL				5312.63	Y
	Add 15% CPOH on “Y”				796.89	
	TOTAL				6109.52	Z
	Add Cess @ 1% on “Z”				61.10	
	Cost of 10 metre				6170.62	
	Cost of 1 metre				617.06	
	Say				617.05	

18.12.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1550	G.I. pipes 50 mm dia	metre	10.20	390.00	3978.00	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 51.70 = 53 kg = 0.053 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.053	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	9.49	2.27	21.54	
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.33	736.00	242.88	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				5357.46	W
	Add 1 % Water charges on “W”				53.57	
	TOTAL				5411.03	X
	Add GST on “X” (multiplying factor 0.2127)				1150.93	
	TOTAL				6561.96	Y
	Add 15% CPOH on “Y”				984.29	
	TOTAL				7546.25	Z
	Add Cess @ 1% on “Z”				75.46	
	Cost of 10 metre				7621.71	
	Cost of 1 metre				762.17	
	Say				762.15	

18.12.7 65 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1551	G.I. pipes 65 mm dia	metre	10.20	450.00	4590.00	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 66.30 = 68 kg = 0.068 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.068	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	White lead, hemp, oil etc.	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.66	736.00	485.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				6302.22	W
	Add 1 % Water charges on “W”				63.02	
	TOTAL				6365.24	X
	Add GST on “X” (multiplying factor 0.2127)				1353.89	
	TOTAL				7719.13	Y
	Add 15% CPOH on “Y”				1157.87	
	TOTAL				8877.00	Z
	Add Cess @ 1% on “Z”				88.77	
	Cost of 10 metre				8965.77	
	Cost of 1 metre				896.58	
	Say				896.60	

18.12.8 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1552	G.I. pipes 80 mm dia	metre	10.20	550.00	5610.00	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 86.40 = 88 kg = 0.088 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.088	0.00	0.00	
9999	White lead, hemp, oil etc.	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.66	736.00	485.76	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.66	736.00	485.76	
	TOTAL				7322.22	W
	Add 1 % Water charges on “W”				73.22	
	TOTAL				7395.44	X
	Add GST on “X” (multiplying factor 0.2127)				1573.01	
	TOTAL				8968.45	Y
	Add 15% CPOH on “Y”				1345.27	
	TOTAL				10313.72	Z
	Add Cess @ 1% on “Z”				103.14	
	Cost of 10 metre				10416.86	
	Cost of 1 metre				1041.69	
	Say				1041.70	

18.13 Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :

18.13.1 25 to 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one connection.					
	Take 25mm dia as an average size.					
	MATERIAL					
1608	G.I. tees (equal) 25 mm	each	1.00	70.00	70.00	
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	20.00	20.00	
9988	Carriage of materials and sundries	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				640.99	W
	Add 1 % Water charges on “W”				6.41	
	TOTAL				647.40	X
	Add GST on “X” (multiplying factor 0.2127)				137.70	
	TOTAL				785.10	Y
	Add 15% CPOH on “Y”				117.77	
	TOTAL				902.87	Z
	Add Cess @ 1% on “Z”				9.03	
	Cost of one connection				911.90	
	Say				911.90	

18.13.2 50 to 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one connection.					
	Take 65mm dia as an average size.					
	MATERIAL					
1612	G.I. tees (equal) 65 mm	each	1.00	480.00	480.00	
1559	G.I. back (jam) nuts 65 mm dia	each	1.00	28.00	28.00	
9988	Carriage of materials and sundries	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.45	897.00	403.65	
0114	Beldar	day	0.45	736.00	331.20	
	TOTAL				1254.95	W
	Add 1 % Water charges on “W”				12.55	
	TOTAL				1267.50	X
	Add GST on “X” (multiplying factor 0.2127)				269.60	
	TOTAL				1537.10	Y
	Add 15% CPOH on “Y”				230.57	
	TOTAL				1767.67	Z
	Add Cess @ 1% on “Z”				17.68	
	Cost of one connection				1785.35	
	Say				1785.35	

18.14 Fixing water meter and stop cock in G.I. pipe line including cutting and threading the pipe and making long screws etc. complete (cost of water meter and stop cock to be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one meter with stop cock					
	MATERIAL					
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	20.00	20.00	
9988	Carriage of materials and sundries	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				570.99	W
	Add 1 % Water charges on “W”				5.71	
	TOTAL				576.70	X
	Add GST on “X” (multiplying factor 0.2127)				122.66	
	TOTAL				699.36	Y
	Add 15% CPOH on “Y”				104.90	
	TOTAL				804.26	Z
	Add Cess @ 1% on “Z”				8.04	
	Cost of one meter with stop cock				812.30	
	Say				812.30	

18.15 Providing and fixing brass bib cock of approved quality :

18.15.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1339	Brass bib-cock 15 mm dia	each	1.00	230.00	230.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				248.30	W
	Add 1 % Water charges on “W”				2.48	
	TOTAL				250.78	X
	Add GST on “X” (multiplying factor 0.2127)				53.34	
	TOTAL				304.12	Y
	Add 15% CPOH on “Y”				45.62	
	TOTAL				349.74	Z
	Add Cess @ 1% on “Z”				3.50	
	Cost of one no.				353.24	
	Say				353.25	

18.15.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1340	Brass bib-cock 20 mm dia	each	1.00	245.00	245.00	
9988	Carriage of materials and fixing charges	L.S.	9.49	2.27	21.54	
	TOTAL				266.54	W
	Add 1 % Water charges on “W”				2.67	
	TOTAL				269.21	X
	Add GST on “X” (multiplying factor 0.2127)				57.26	
	TOTAL				326.47	Y
	Add 15% CPOH on “Y”				48.97	
	TOTAL				375.44	Z
	Add Cess @ 1% on “Z”				3.75	
	Cost of one no.				379.19	
	Say				379.20	

18.16 Providing and fixing brass stop cock of approved quality :

18.16.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1342	Brass stop-cock 15 mm dia	each	1.00	230.00	230.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				248.30	W
	Add 1 % Water charges on “W”				2.48	
	TOTAL				250.78	X
	Add GST on “X” (multiplying factor 0.2127)				53.34	
	TOTAL				304.12	Y
	Add 15% CPOH on “Y”				45.62	
	TOTAL				349.74	Z
	Add Cess @ 1% on “Z”				3.50	
	Cost of one no.				353.24	
	Say				353.25	

18.16.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1343	Brass stop-cock 20 mm dia	each	1.00	245.00	245.00	
9988	Carriage of materials and fixing charges	L.S.	9.49	2.27	21.54	
	TOTAL				266.54	W
	Add 1 % Water charges on “W”				2.67	
	TOTAL				269.21	X
	Add GST on “X” (multiplying factor 0.2127)				57.26	
	TOTAL				326.47	Y
	Add 15% CPOH on “Y”				48.97	
	TOTAL				375.44	Z
	Add Cess @ 1% on “Z”				3.75	
	Cost of one no.				379.19	
	Say				379.20	

18.17 Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end):

18.17.1 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1927	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	each	1.00	413.00	413.00	
9988	Carriage of materials and fixing charges	L.S.	10.79	2.27	24.49	
	TOTAL				437.49	W
	Add 1 % Water charges on “W”				4.37	
	TOTAL				441.86	X
	Add GST on “X” (multiplying factor 0.2127)				93.98	
	TOTAL				535.84	Y
	Add 15% CPOH on “Y”				80.38	
	TOTAL				616.22	Z
	Add Cess @ 1% on “Z”				6.16	
	Cost of one no.				622.38	
	Say				622.40	

18.17.1A 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No.					
	MATERIAL					
1926	20 mm dia Gunmetal gate valve with wheel	each	1.00	358.00	358.00	
9977	Carriage of metrial and fixing charge	L.S.	9.49	2.27	21.54	
	TOTAL				379.54	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				3.80	
	TOTAL				383.34	X
	Add GST on “X” (multiplying factor 0.2127)				81.54	
	TOTAL				464.88	Y
	Add 15% CPOH on “Y”				69.73	
	TOTAL				534.61	Z
	Add Cess @ 1% on “Z”				5.35	
	Cost of 1 No.				539.96	
	Say				539.95	

18.17.2 32 mm nominal bore.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1928	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	1.00	457.00	457.00	
9988	Carriage of materials and fixing charges	L.S.	12.22	2.27	27.74	
	TOTAL				484.74	W
	Add 1 % Water charges on “W”				4.85	
	TOTAL				489.59	X
	Add GST on “X” (multiplying factor 0.2127)				104.14	
	TOTAL				593.73	Y
	Add 15% CPOH on “Y”				89.06	
	TOTAL				682.79	Z
	Add Cess @ 1% on “Z”				6.83	
	Cost of one no.				689.62	
	Say				689.60	

18.17.3 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1929	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	1.00	550.00	550.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				580.69	W
	Add 1 % Water charges on “W”				5.81	
	TOTAL				586.50	X
	Add GST on “X” (multiplying factor 0.2127)				124.75	
	TOTAL				711.25	Y
	Add 15% CPOH on “Y”				106.69	
	TOTAL				817.94	Z
	Add Cess @ 1% on “Z”				8.18	
	Cost of one no.				826.12	
	Say				826.10	

18.17.4 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1930	Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	1.00	688.00	688.00	
9988	Carriage of materials and fixing charges	L.S.	14.82	2.27	33.64	
	TOTAL				721.64	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				7.22	
	TOTAL				728.86	X
	Add GST on “X” (multiplying factor 0.2127)				155.03	
	TOTAL				883.89	Y
	Add 15% CPOH on “Y”				132.58	
	TOTAL				1016.47	Z
	Add Cess @ 1% on “Z”				10.16	
	Cost of one no.				1026.63	
	Say				1026.65	

18.17.5 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1931	Brass full way valve with C.I. wheel (screwed end) 65 mm dia	each	1.00	1188.00	1188.00	
9988	Carriage of materials and fixing charges	L.S.	16.12	2.27	36.59	
	TOTAL				1224.59	W
	Add 1 % Water charges on “W”				12.25	
	TOTAL				1236.84	X
	Add GST on “X” (multiplying factor 0.2127)				263.08	
	TOTAL				1499.92	Y
	Add 15% CPOH on “Y”				224.99	
	TOTAL				1724.91	Z
	Add Cess @ 1% on “Z”				17.25	
	Cost of one no.				1742.16	
	Say				1742.15	

18.17.6 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1932	Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1.00	1788.00	1788.00	
9988	Carriage of materials and fixing charges	L.S.	18.85	2.27	42.79	
	TOTAL				1830.79	W
	Add 1 % Water charges on “W”				18.31	
	TOTAL				1849.10	X
	Add GST on “X” (multiplying factor 0.2127)				393.30	
	TOTAL				2242.40	Y
	Add 15% CPOH on “Y”				336.36	
	TOTAL				2578.76	Z
	Add Cess @ 1% on “Z”				25.79	
	Cost of one no.				2604.55	
	Say				2604.55	

18.18 Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :

18.18.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1922	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	1.00	237.00	237.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Carriage of materials and fixing charges	L.S.	21.58	2.27	48.99	
	TOTAL				285.99	W
	Add 1 % Water charges on “W”				2.86	
	TOTAL				288.85	X
	Add GST on “X” (multiplying factor 0.2127)				61.44	
	TOTAL				350.29	Y
	Add 15% CPOH on “Y”				52.54	
	TOTAL				402.83	Z
	Add Cess @ 1% on “Z”				4.03	
	Cost of one no.				406.86	
	Say				406.85	

18.18.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1923	H.P. or L.P. ball valve with polythene floats:					
	20 mm dia	each	1.00	264.00	264.00	
9988	Carriage of materials and fixing charges	L.S.	26.91	2.27	61.09	
	TOTAL				325.09	W
	Add 1 % Water charges on “W”				3.25	
	TOTAL				328.34	X
	Add GST on “X” (multiplying factor 0.2127)				69.84	
	TOTAL				398.18	Y
	Add 15% CPOH on “Y”				59.73	
	TOTAL				457.91	Z
	Add Cess @ 1% on “Z”				4.58	
	Cost of one no.				462.49	
	Say				462.50	

18.18.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1924	H.P. or L.P. ball valve with polythene floats:					
	25 mm dia	each	1.00	253.00	253.00	
9988	Carriage of materials and fixing charges	L.S.	32.24	2.27	73.18	
	TOTAL				326.18	W
	Add 1 % Water charges on “W”				3.26	
	TOTAL				329.44	X
	Add GST on “X” (multiplying factor 0.2127)				70.07	
	TOTAL				399.51	Y
	Add 15% CPOH on “Y”				59.93	
	TOTAL				459.44	Z
	Add Cess @ 1% on “Z”				4.59	
	Cost of one no.				464.03	
	Say				464.05	

18.19 Providing and fixing gun metal non- return valve of approved quality (screwed end) :

18.19.1 25 mm nominal bore

18.19.1.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1933	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	1.00	385.00	385.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				415.69	W
	Add 1 % Water charges on “W”				4.16	
	TOTAL				419.85	X
	Add GST on “X” (multiplying factor 0.2127)				89.30	
	TOTAL				509.15	Y
	Add 15% CPOH on “Y”				76.37	
	TOTAL				585.52	Z
	Add Cess @ 1% on “Z”				5.86	
	Cost of one no.				591.38	
	Say				591.40	

18.19.1.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3080	Gunmetal non-return valve-vertical (screwed end) 25 mm dia	each	1.00	408.00	408.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				438.69	W
	Add 1 % Water charges on “W”				4.39	
	TOTAL				443.08	X
	Add GST on “X” (multiplying factor 0.2127)				94.24	
	TOTAL				537.32	Y
	Add 15% CPOH on “Y”				80.60	
	TOTAL				617.92	Z
	Add Cess @ 1% on “Z”				6.18	
	Cost of one no.				624.10	
	Say				624.10	

18.19.2 32 mm nominal bore

18.19.2.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1934	Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	1.00	523.00	523.00	
9988	Carriage of materials and fixing charges	L.S.	14.82	2.27	33.64	
	TOTAL				556.64	W
	Add 1 % Water charges on “W”				5.57	
	TOTAL				562.21	X
	Add GST on “X” (multiplying factor 0.2127)				119.58	
	TOTAL				681.79	Y
	Add 15% CPOH on “Y”				102.27	
	TOTAL				784.06	Z
	Add Cess @ 1% on “Z”				7.84	
	Cost of one no.				791.90	
	Say				791.90	

18.19.2.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3084	Gunmetal non-return valve-vertical (screwed end) 32 mm dia	each	1.00	564.00	564.00	
9988	Carriage of materials and fixing charges	L.S.	14.82	2.27	33.64	
	TOTAL				597.64	W
	Add 1 % Water charges on “W”				5.98	
	TOTAL				603.62	X
	Add GST on “X” (multiplying factor 0.2127)				128.39	
	TOTAL				732.01	Y
	Add 15% CPOH on “Y”				109.80	
	TOTAL				841.81	Z
	Add Cess @ 1% on “Z”				8.42	
	Cost of one no.				850.23	
	Say				850.25	

18.19.3 40 mm nominal bore

18.19.3.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1935	Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	1.00	633.00	633.00	
9988	Carriage of materials and fixing charges	L.S.	16.12	2.27	36.59	
	TOTAL				669.59	W
	Add 1 % Water charges on “W”				6.70	
	TOTAL				676.29	X
	Add GST on “X” (multiplying factor 0.2127)				143.85	
	TOTAL				820.14	Y
	Add 15% CPOH on “Y”				123.02	
	TOTAL				943.16	Z
	Add Cess @ 1% on “Z”				9.43	
	Cost of one no.				952.59	
	Say				952.60	

18.19.3.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3088	Gunmetal non-return valve-vertical (screwed end) 40 mm dia	each	1.00	761.00	761.00	
9988	Carriage of materials and fixing charges	L.S.	16.12	2.27	36.59	
	TOTAL				797.59	W
	Add 1 % Water charges on “W”				7.98	
	TOTAL				805.57	X
	Add GST on “X” (multiplying factor 0.2127)				171.34	
	TOTAL				976.91	Y
	Add 15% CPOH on “Y”				146.54	
	TOTAL				1123.45	Z
	Add Cess @ 1% on “Z”				11.23	
	Cost of one no.				1134.68	
	Say				1134.70	

18.19.4 50 mm nominal bore

18.19.4.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1936	Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	1.00	924.00	924.00	
9988	Carriage of materials and fixing charges	L.S.	17.55	2.27	39.84	
	TOTAL				963.84	W
	Add 1 % Water charges on “W”				9.64	
	TOTAL				973.48	X
	Add GST on “X” (multiplying factor 0.2127)				207.06	
	TOTAL				1180.54	Y
	Add 15% CPOH on “Y”				177.08	
	TOTAL				1357.62	Z
	Add Cess @ 1% on “Z”				13.58	
	Cost of one no.				1371.20	
	Say				1371.20	

18.19.4.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3092	Gunmetal non-return valve-vertical (screwed end) 50 mm dia	each	1.00	976.00	976.00	
9988	Carriage of materials and fixing charges	L.S.	17.55	2.27	39.84	
	TOTAL				1015.84	W
	Add 1 % Water charges on “W”				10.16	
	TOTAL				1026.00	X
	Add GST on “X” (multiplying factor 0.2127)				218.23	
	TOTAL				1244.23	Y
	Add 15% CPOH on “Y”				186.63	
	TOTAL				1430.86	Z
	Add Cess @ 1% on “Z”				14.31	
	Cost of one no.				1445.17	
	Say				1445.15	

18.19.5 65 mm nominal bore

18.19.5.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1937	Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1.00	1678.00	1678.00	
9988	Carriage of materials and fixing charges	L.S.	18.85	2.27	42.79	
	TOTAL				1720.79	W
	Add 1 % Water charges on “W”				17.21	
	TOTAL				1738.00	X
	Add GST on “X” (multiplying factor 0.2127)				369.67	
	TOTAL				2107.67	Y
	Add 15% CPOH on “Y”				316.15	
	TOTAL				2423.82	Z
	Add Cess @ 1% on “Z”				24.24	
	Cost of one no.				2448.06	
	Say				2448.05	

18.19.5.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3096	Gunmetal non-return valve-vertical (screwed end) 65 mm dia	each	1.00	1568.00	1568.00	
9988	Carriage of materials and fixing charges	L.S.	18.85	2.27	42.79	
	TOTAL				1610.79	W
	Add 1 % Water charges on “W”				16.11	
	TOTAL				1626.90	X
	Add GST on “X” (multiplying factor 0.2127)				346.04	
	TOTAL				1972.94	Y
	Add 15% CPOH on “Y”				295.94	
	TOTAL				2268.88	Z
	Add Cess @ 1% on “Z”				22.69	
	Cost of one no.				2291.57	
	Say				2291.55	

18.19.6 80 mm nominal bore

18.19.6.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1938	Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	1.00	2530.00	2530.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				2576.04	W
	Add 1 % Water charges on “W”				25.76	
	TOTAL				2601.80	X
	Add GST on “X” (multiplying factor 0.2127)				553.40	
	TOTAL				3155.20	Y
	Add 15% CPOH on “Y”				473.28	
	TOTAL				3628.48	Z
	Add Cess @ 1% on “Z”				36.28	
	Cost of one no.				3664.76	
	Say				3664.75	

18.19.6.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3300	Gunmetal non-return valve-vertical (screwed end) 80 mm dia	each	1.00	2664.00	2664.00	
9988	Carriage of materials and fixing charges	L.S.	20.28	2.27	46.04	
	TOTAL				2710.04	W
	Add 1 % Water charges on “W”				27.10	
	TOTAL				2737.14	X
	Add GST on “X” (multiplying factor 0.2127)				582.19	
	TOTAL				3319.33	Y
	Add 15% CPOH on “Y”				497.90	
	TOTAL				3817.23	Z
	Add Cess @ 1% on “Z”				38.17	
	Cost of one no.				3855.40	
	Say				3855.40	

18.20 Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :

18.20.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1360	C.I.mouth, brass ferrule 15 mm dia	each	1.00	140.00	140.00	
9988	Carriage of materials and fixing charges	L.S.	40.30	2.27	91.48	
	TOTAL				231.48	W
	Add 1 % Water charges on “W”				2.31	
	TOTAL				233.79	X
	Add GST on “X” (multiplying factor 0.2127)				49.73	
	TOTAL				283.52	Y
	Add 15% CPOH on “Y”				42.53	
	TOTAL				326.05	Z
	Add Cess @ 1% on “Z”				3.26	
	Cost of one no.				329.31	
	Say				329.30	

18.20.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1361	C.I.mouth, brass ferrule 20 mm dia	each	1.00	160.00	160.00	
9988	Carriage of materials and fixing charges	L.S.	47.19	2.27	107.12	
	TOTAL				267.12	W
	Add 1 % Water charges on “W”				2.67	
	TOTAL				269.79	X
	Add GST on “X” (multiplying factor 0.2127)				57.38	
	TOTAL				327.17	Y
	Add 15% CPOH on “Y”				49.08	
	TOTAL				376.25	Z
	Add Cess @ 1% on “Z”				3.76	
	Cost of one no.				380.01	
	Say				380.00	

18.20.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1362	C.I.mouth, brass ferrule 25 mm dia	each	1.00	220.00	220.00	
9988	Carriage of materials and fixing charges	L.S.	53.82	2.27	122.17	
	TOTAL				342.17	W
	Add 1 % Water charges on “W”				3.42	
	TOTAL				345.59	X
	Add GST on “X” (multiplying factor 0.2127)				73.51	
	TOTAL				419.10	Y
	Add 15% CPOH on “Y”				62.87	
	TOTAL				481.97	Z
	Add Cess @ 1% on “Z”				4.82	
	Cost of one no.				486.79	
	Say				486.80	

18.21 Providing and fixing uplasticised PVC connection pipe with brass unions :

18.21.1 30 cm length

18.21.1.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1687	Unplasticised P.V.C.connection pipe with brass union 30 cm long 15 mm bore	each	1.00	32.00	32.00	
9988	Carriage of materials and fixing charges	L.S.	12.22	2.27	27.74	
	TOTAL				59.74	W
	Add 1 % Water charges on “W”				0.60	
	TOTAL				60.34	X
	Add GST on “X” (multiplying factor 0.2127)				12.83	
	TOTAL				73.17	Y
	Add 15% CPOH on “Y”				10.98	
	TOTAL				84.15	Z
	Add Cess @ 1% on “Z”				0.84	
	Cost of one no.				84.99	
	Say				85.00	

18.21.1.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1688	Unplasticised P.V.C.connection pipe with brass union 30 cm long 20 mm bore	each	1.00	38.00	38.00	
9988	Carriage of materials and fixing charges	L.S.	12.22	2.27	27.74	
	TOTAL				65.74	W
	Add 1 % Water charges on “W”				0.66	
	TOTAL				66.40	X
	Add GST on “X” (multiplying factor 0.2127)				14.12	
	TOTAL				80.52	Y
	Add 15% CPOH on “Y”				12.08	
	TOTAL				92.60	Z
	Add Cess @ 1% on “Z”				0.93	
	Cost of one no.				93.53	
	Say				93.55	

18.21.2 45 cm length

18.21.2.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1689	Unplasticised P.V.C.connection pipe with brass union 45 cm long 15 mm bore	each	1.00	38.00	38.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				68.69	W
	Add 1 % Water charges on “W”				0.69	
	TOTAL				69.38	X
	Add GST on “X” (multiplying factor 0.2127)				14.76	
	TOTAL				84.14	Y
	Add 15% CPOH on “Y”				12.62	
	TOTAL				96.76	Z
	Add Cess @ 1% on “Z”				0.97	
	Cost of one no.				97.73	
	Say				97.75	

18.21.2.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1690	Unplasticised P.V.C.connection pipe with brass union 45 cm long 20 mm bore	each	1.00	53.00	53.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				83.69	W
	Add 1 % Water charges on “W”				0.84	
	TOTAL				84.53	X
	Add GST on “X” (multiplying factor 0.2127)				17.98	
	TOTAL				102.51	Y
	Add 15% CPOH on “Y”				15.38	
	TOTAL				117.89	Z
	Add Cess @ 1% on “Z”				1.18	
	Cost of one no.				119.07	
	Say				119.05	

18.22 Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :

18.22.1 100 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1878	Shower rose C.P.brass for 15 to 20 mm inlet 100 mm dia	each	1.00	121.00	121.00	
9988	Carriage of materials and fixing charges	L.S.	6.76	2.27	15.35	
	TOTAL				136.35	W
	Add 1 % Water charges on “W”				1.36	
	TOTAL				137.71	X
	Add GST on “X” (multiplying factor 0.2127)				29.29	
	TOTAL				167.00	Y
	Add 15% CPOH on “Y”				25.05	
	TOTAL				192.05	Z
	Add Cess @ 1% on “Z”				1.92	
	Cost of one no.				193.97	
	Say				193.95	

18.22.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1879	Shower rose C.P.brass for 15 to 20 mm inlet 150 mm dia	each	1.00	138.00	138.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				156.30	W
	Add 1 % Water charges on “W”				1.56	
	TOTAL				157.86	X
	Add GST on “X” (multiplying factor 0.2127)				33.58	
	TOTAL				191.44	Y
	Add 15% CPOH on “Y”				28.72	
	TOTAL				220.16	Z
	Add Cess @ 1% on “Z”				2.20	
	Cost of one no.				222.36	
	Say				222.35	

18.23 Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.14 quintal					
	10 m of 200 mm dia C.I. pipe class 'A'					
	Weight = (2x257) = 514kg = 5.14 quintal					
	LABOUR for laying pipe					
0116	Fitter (grade 1)	day	0.17	897.00	152.49	
0117	Assistant Fitter or 2nd class Fitter	day	0.17	816.00	138.72	
0114	Beldar	day	1.33	736.00	978.88	
9999	Sundries	L.S.	16.12	2.27	36.59	
	TOTAL				1306.68	W
	Add 1 % Water charges on "W"				13.07	
	TOTAL				1319.75	X
	Add GST on "X" (multiplying factor 0.2127)				280.71	
	TOTAL				1600.46	Y
	Add 15% CPOH on "Y"				240.07	
	TOTAL				1840.53	Z
	Add Cess @ 1% on "Z"				18.41	
	Cost of 5.14 quintal				1858.94	
	Cost of one quintal				361.66	
	Say				361.65	

18.24 Laying in position S&S or flanged C.I. special such as tees, bends, collars, tapers and caps etc.(excluding cost of specials).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 7 quintal					
	10 Nos. Tee 200x150mm Weight = 70x10 = 700kg.					
	LABOUR for laying tee-					
0116	Fitter (grade 1)	day	0.93	897.00	834.21	
0117	Assistant Fitter or 2nd class Fitter	day	0.62	816.00	505.92	
0114	Beldar	day	2.48	736.00	1825.28	
9999	Sundries	L.S.	40.17	2.27	91.19	
	TOTAL				3256.60	W
	Add 1 % Water charges on "W"				32.57	
	TOTAL				3289.17	X
	Add GST on "X" (multiplying factor 0.2127)				699.61	
	TOTAL				3988.78	Y
	Add 15% CPOH on "Y"				598.32	
	TOTAL				4587.10	Z
	Add Cess @ 1% on "Z"				45.87	
	Cost of 7 quintal				4632.97	
	Cost of one quintal				661.85	
	Say				661.85	

18.25 Providing and laying S&S C.I. standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class):

18.25.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
1464	S & S.C.I.standard specials upto 300 mm dia (heavy class)	quintal	1.00	4000.00	4000.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
18.24	Rate as per item No. 18.24 Of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				4661.85	W
	Add 1 % Water charges on “W-A”				40.00	
	TOTAL				4701.85	X
	Add GST on “X-A” (multiplying factor 0.2127)				859.31	
	TOTAL				5561.16	Y
	Add 15% CPOH on “Y-A”				734.90	
	TOTAL				6296.06	Z
	Add Cess @ 1% on “Z-A”				56.34	
	Cost of one quintal				6352.40	
	Say				6352.40	

18.25.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
1466	S & S.C.I.standard specials over 300 mm dia (heavy class)	quintal	1.00	4000.00	4000.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	LABOUR					
	For laying					
18.24	Rate as per item No. 18.24 Of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				4661.85	W
	Add 1 % Water charges on “W-A”				40.00	
	TOTAL				4701.85	X
	Add GST on “X-A” (multiplying factor 0.2127)				859.31	
	TOTAL				5561.16	Y
	Add 15% CPOH on “Y-A”				734.90	
	TOTAL				6296.06	Z
	Add Cess @ 1% on “Z-A”				56.34	
	Cost of one quintal				6352.40	
	Say				6352.40	

18.26 Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :

18.26.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
1468	Flanged C.I. standard specials upto 300 mm dia(heavy class)	quintal	1.00	5800.00	5800.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	LABOUR					
	For laying					
18.24	Rate as per item No. 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				6461.85	W
	Add 1 % Water charges on “W-A”				58.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				6519.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				1246.00	
	TOTAL				7765.85	Y
	Add 15% CPOH on "Y-A"				1065.60	
	TOTAL				8831.45	Z
	Add Cess @ 1% on "Z-A"				81.70	
	Cost of one quintal				8913.15	
	Say				8913.15	

18.26.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
1470	Flanged C.I. standard specials over 300 mm dia(heavy class)	quintal	1.00	5500.00	5500.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	LABOUR					
	For laying					
18.24	Rate as per item No. 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				6161.85	W
	Add 1 % Water charges on "W-A"				55.00	
	TOTAL				6216.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				1181.55	
	TOTAL				7398.40	Y
	Add 15% CPOH on "Y-A"				1010.48	
	TOTAL				8408.88	Z
	Add Cess @ 1% on "Z-A"				77.47	
	Cost of one quintal				8486.35	
	Say				8486.35	

18.27 Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 :

18.27.1 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	100mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 19.820 Kg					
	Weight of 10m pipes 19.820x10 = 198.20 Kg					
7697	S&S Centrifugally (Spun) C.I. Pipe class LA 100mm dia	metre	10.00	950.00	9500.00	
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.98	361.65	716.07	A
	TOTAL				10216.07	W
	Add 1 % Water charges on "W-A"				95.00	
	TOTAL				10311.07	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				2040.86	
	TOTAL				12351.93	Y
	Add 15% CPOH on "Y-A"				1745.38	
	TOTAL				14097.31	Z
	Add Cess @ 1% on "Z-A"				133.81	
	Cost of 10 metre				14231.12	
	Cost of one metre				1423.11	
	Say				1423.10	

18.27.2 125 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	125mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 25.820 Kg					
	Weight of 10m pipes 25.820x10 = 258.20 Kg					
7698	S&S Centrifugally (Spun) C.I. Pipe class LA 125mm dia	metre	10.00	1150.00	11500.00	
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.58	361.65	933.06	A
	TOTAL				12433.06	W
	Add 1 % Water charges on "W-A"				115.00	
	TOTAL				12548.06	X
	Add GST on "X-A" (multiplying factor 0.2127)				2470.51	
	TOTAL				15018.57	Y
	Add 15% CPOH on "Y-A"				2112.83	
	TOTAL				17131.40	Z
	Add Cess @ 1% on "Z-A"				161.98	
	Cost of 10 metre				17293.38	
	Cost of one metre				1729.34	
	Say				1729.35	

18.27.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	150mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 32.180 Kg					
	Weight of 10m pipes 32.180x10 = 321.80 Kg					
7699	S&S Centrifugally (Spun) C.I. Pipe class LA 150mm dia	metre	10.00	1350.00	13500.00	
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.22	361.65	1164.51	A
	TOTAL				14664.51	W
	Add 1 % Water charges on “W-A”				135.00	
	TOTAL				14799.51	X
	Add GST on “X-A” (multiplying factor 0.2127)				2900.16	
	TOTAL				17699.67	Y
	Add 15% CPOH on “Y-A”				2480.27	
	TOTAL				20179.94	Z
	Add Cess @ 1% on “Z-A”				190.15	
	Cost of 10 metre				20370.09	
	Cost of one metre				2037.01	
	Say				2037.00	

18.27.4 200 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	200mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 47.090 Kg					
	Weight of 10m pipes 47.090x10 = 470.90 Kg					
7700	S&S Centrifugally (Spun) C.I. Pipe class LA 200mm dia	metre	10.00	2275.00	22750.00	
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.71	361.65	1703.37	A
	TOTAL				24453.37	W
	Add 1 % Water charges on “W-A”				227.50	
	TOTAL				24680.87	X
	Add GST on “X-A” (multiplying factor 0.2127)				4887.31	
	TOTAL				29568.18	Y
	Add 15% CPOH on “Y-A”				4179.72	
	TOTAL				33747.90	Z
	Add Cess @ 1% on “Z-A”				320.45	
	Cost of 10 metre				34068.35	
	Cost of one metre				3406.84	
	Say				3406.85	

18.27.5 250 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIALS					
	250mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 63.450 Kg					
	Weight of 10m pipes 63.450x10 = 634.50 Kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7701	S&S Centrifugally (Spun) C.I. Pipe class LA 250mm dia	metre	10.00	3100.00	31000.00	
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.35	361.65	2296.48	A
	TOTAL				33296.48	W
	Add 1 % Water charges on “W-A”				310.00	
	TOTAL				33606.48	X
	Add GST on “X-A” (multiplying factor 0.2127)				6659.64	
	TOTAL				40266.12	Y
	Add 15% CPOH on “Y-A”				5695.45	
	TOTAL				45961.57	Z
	Add Cess @ 1% on “Z-A”				436.65	
	Cost of 10 metre				46398.22	
	Cost of one metre				4639.82	
	Say				4639.80	

18.27.6 300 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	300mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 81.820 Kg					
	Weight of 10m pipes 81.820x10 = 818.20 Kg					
7702	S&S Centrifugally (Spun) C.I. Pipe class LA 300mm dia	metre	10.00	4100.00	41000.00	
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	8.18	361.65	2958.30	A
	TOTAL				43958.30	W
	Add 1 % Water charges on “W-A”				410.00	
	TOTAL				44368.30	X
	Add GST on “X-A” (multiplying factor 0.2127)				8807.91	
	TOTAL				53176.21	Y
	Add 15% CPOH on “Y-A”				7532.69	
	TOTAL				60708.90	Z
	Add Cess @ 1% on “Z-A”				577.51	
	Cost of 10 metre				61286.41	
	Cost of one metre				6128.64	
	Say				6128.65	

18.27.7 350 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	350mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 103.10 Kg					
	Weight of 10m pipes 103.10x10 = 1031.00 Kg					
7703	S&S Centrifugally (Spun) C.I. Pipe class LA 350mm dia	metre	10.00	4900.00	49000.00	
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.31	361.65	3728.61	A
	TOTAL				52728.61	W
	Add 1 % Water charges on “W-A”				490.00	
	TOTAL				53218.61	X
	Add GST on “X-A” (multiplying factor 0.2127)				10526.52	
	TOTAL				63745.13	Y
	Add 15% CPOH on “Y-A”				9002.48	
	TOTAL				72747.61	Z
	Add Cess @ 1% on “Z-A”				690.19	
	Cost of 10 metre				73437.80	
	Cost of one metre				7343.78	
	Say				7343.80	

18.27.8 400 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	400mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 125.45 Kg					
	Weight of 10m pipes 125.45x10 = 1254.50 Kg					
7704	S&S Centrifugally (Spun) C.I. Pipe class LA 400mm dia	metre	10.00	6500.00	65000.00	
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	12.55	361.65	4538.71	A
	TOTAL				69538.71	W
	Add 1 % Water charges on “W-A”				650.00	
	TOTAL				70188.71	X
	Add GST on “X-A” (multiplying factor 0.2127)				13963.76	
	TOTAL				84152.47	Y
	Add 15% CPOH on “Y-A”				11942.06	
	TOTAL				96094.53	Z
	Add Cess @ 1% on “Z-A”				915.56	
	Cost of 10 metre				97010.09	
	Cost of one metre				9701.01	
	Say				9701.00	

18.27.9 450 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	450mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 151.270 Kg					
	Weight of 10m pipes 151.270x10 = 1512.70 Kg					
7705	S&S Centrifugally (Spun) C.I. Pipe class LA 450mm dia	metre	10.00	7850.00	78500.00	
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	15.13	361.65	5471.76	A
	TOTAL				83971.76	W
	Add 1 % Water charges on “W-A”				785.00	
	TOTAL				84756.76	X
	Add GST on “X-A” (multiplying factor 0.2127)				16863.92	
	TOTAL				101620.68	Y
	Add 15% CPOH on “Y-A”				14422.34	
	TOTAL				116043.02	Z
	Add Cess @ 1% on “Z-A”				1105.71	
	Cost for 10 metre				117148.73	
	Cost of one metre				11714.87	
	Say				11714.85	

18.27.10 500 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	500mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 177.090 Kg					
	Weight of 10m pipes 177.090x10 = 1770.90 Kg					
7706	S&S Centrifugally (Spun) C.I. Pipe class LA 500mm dia	metre	10.00	9200.00	92000.00	
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	17.71	361.65	6404.82	A
	TOTAL				98404.82	W
	Add 1 % Water charges on “W-A”				920.00	
	TOTAL				99324.82	X
	Add GST on “X-A” (multiplying factor 0.2127)				19764.08	
	TOTAL				119088.90	Y
	Add 15% CPOH on “Y-A”				16902.61	
	TOTAL				135991.51	Z
	Add Cess @ 1% on “Z-A”				1295.87	
	Cost of 10 metre				137287.38	
	Cost of one metre				13728.74	
	Say				13728.75	

18.27.11 600 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	600mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 236.000 Kg					
	Weight of 10m pipes 236.000x10 = 2360.00 Kg					
7707	S&S Centrifugally (Spun) C.I. Pipe class LA 600mm dia	metre	10.00	12500.00	125000.00	
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.10	0.00	0.00	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	23.60	361.65	8534.94	A
	TOTAL				133534.94	W
	Add 1 % Water charges on “W-A”				1250.00	
	TOTAL				134784.94	X
	Add GST on “X-A” (multiplying factor 0.2127)				26853.38	
	TOTAL				161638.32	Y
	Add 15% CPOH on “Y-A”				22965.51	
	TOTAL				184603.83	Z
	Add Cess @ 1% on “Z-A”				1760.69	
	Cost of 10 metre				186364.52	
	Cost of 1 metre				18636.45	
	Say				18636.45	

18.28 Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead :

18.28.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn 0.17x 10 =1.70 kg	kilogram	1.70	61.00	103.70	
0761	Fuel wood	quintal	0.28	550.00	154.00	
0771	Kerosene oil	litre	0.38	50.00	19.00	
9999	Sundries	L.S.	6.76	2.27	15.35	
9977	Carriage of materials	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0117	Assistant Fitter or 2nd class Fitter	day	1.00	816.00	816.00	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				3489.15	W
	Add 1 % Water charges on “W”				34.89	
	TOTAL				3524.04	X
	Add GST on “X” (multiplying factor 0.2127)				749.56	
	TOTAL				4273.60	Y
	Add 15% CPOH on “Y”				641.04	
	TOTAL				4914.64	Z
	Add Cess @ 1% on “Z”				49.15	
	Cost of 10 joints				4963.79	
	Cost of one joint				496.38	
	Say				496.40	

18.28.2 125 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	2.00	61.00	122.00	
	0.20x10=2.00 kg					
0761	Fuel wood	quintal	0.37	550.00	203.50	
0771	Kerosene oil	litre	0.76	50.00	38.00	
9999	Sundries	L.S.	9.49	2.27	21.54	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	LABOUR					
0116	Fitter (grade 1)	day	1.50	897.00	1345.50	
0117	Assistant Fitter or 2nd class Fitter	day	1.50	816.00	1224.00	
0114	Beldar	day	3.00	736.00	2208.00	
	TOTAL				5184.08	W
	Add 1 % Water charges on “W”				51.84	
	TOTAL				5235.92	X
	Add GST on “X” (multiplying factor 0.2127)				1113.68	
	TOTAL				6349.60	Y
	Add 15% CPOH on “Y”				952.44	
	TOTAL				7302.04	Z
	Add Cess @ 1% on “Z”				73.02	
	Cost of 10 joints				7375.06	
	Cost of one joint				737.51	
	Say				737.50	

18.28.3 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	2.30	61.00	140.30	
	0.23x10=2.30 kg					
0761	Fuel wood	quintal	0.42	550.00	231.00	
0771	Kerosene oil	litre	0.76	50.00	38.00	
9999	Sundries	L.S.	10.79	2.27	24.49	
9977	Carriage of materials	L.S.	10.79	2.27	24.49	
	LABOUR					
0116	Fitter (grade 1)	day	1.50	897.00	1345.50	
0117	Assistant Fitter or 2nd class Fitter	day	1.50	816.00	1224.00	
0114	Beldar	day	3.00	736.00	2208.00	
	TOTAL				5235.78	W
	Add 1 % Water charges on “W”				52.36	
	TOTAL				5288.14	X
	Add GST on “X” (multiplying factor 0.2127)				1124.79	
	TOTAL				6412.93	Y
	Add 15% CPOH on “Y”				961.94	
	TOTAL				7374.87	Z
	Add Cess @ 1% on “Z”				73.75	
	Cost of 10 joints				7448.62	
	Cost of one joint				744.86	
	Say				744.85	

18.28.4 200 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	3.00	61.00	183.00	
	0.3x10=3.00 kg					
0761	Fuel wood	quintal	0.56	550.00	308.00	
0771	Kerosene oil	litre	0.76	50.00	38.00	
9999	Sundries	L.S.	13.52	2.27	30.69	
9977	Carriage of materials	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0117	Assistant Fitter or 2nd class Fitter	day	2.00	816.00	1632.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				6960.38	W
	Add 1 % Water charges on “W”				69.60	
	TOTAL				7029.98	X
	Add GST on “X” (multiplying factor 0.2127)				1495.28	
	TOTAL				8525.26	Y
	Add 15% CPOH on “Y”				1278.79	
	TOTAL				9804.05	Z
	Add Cess @ 1% on “Z”				98.04	
	Cost of 10 joints				9902.09	
	Cost of one joint				990.21	
	Say				990.20	

18.28.5 250 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	4.00	61.00	244.00	
	0.4x10=4 00 kg					
0761	Fuel wood	quintal	0.65	550.00	357.50	
0771	Kerosene oil	litre	1.14	50.00	57.00	
9999	Sundries	L.S.	17.55	2.27	39.84	
9977	Carriage of materials	L.S.	17.55	2.27	39.84	
	LABOUR				0.00	
0116	Fitter (grade 1)	day	2.50	897.00	2242.50	
0117	Assistant Fitter or 2nd class Fitter	day	2.50	816.00	2040.00	
0114	Beldar	day	5.00	736.00	3680.00	
	TOTAL				8700.68	W
	Add 1 % Water charges on “W”				87.01	
	TOTAL				8787.69	X
	Add GST on “X” (multiplying factor 0.2127)				1869.14	
	TOTAL				10656.83	Y
	Add 15% CPOH on “Y”				1598.52	
	TOTAL				12255.35	Z
	Add Cess @ 1% on “Z”				122.55	
	Cost of 10 joints				12377.90	
	Cost of one joint				1237.79	
	Say				1237.80	

18.28.6 300 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	5.40	61.00	329.40	
	0.54x10 =5.40 kg					
0761	Fuel wood	quintal	0.75	550.00	412.50	
0771	Kerosene oil	litre	1.52	50.00	76.00	
9999	Sundries	L.S.	20.28	2.27	46.04	
9977	Carriage of materials	L.S.	20.28	2.27	46.04	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	897.00	2691.00	
0117	Assistant Fitter or 2nd class Fitter	day	3.00	816.00	2448.00	
0114	Beldar	day	6.00	736.00	4416.00	
	TOTAL				10464.98	W
	Add 1 % Water charges on “W”				104.65	
	TOTAL				10569.63	X
	Add GST on “X” (multiplying factor 0.2127)				2248.16	
	TOTAL				12817.79	Y
	Add 15% CPOH on “Y”				1922.67	
	TOTAL				14740.46	Z
	Add Cess @ 1% on “Z”				147.40	
	Cost of 10 joints				14887.86	
	Cost of one joint				1488.79	
	Say				1488.80	

18.28.7 350 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	6.20	61.00	378.20	
	0.62x10=6.20 kg					
0761	Fuel wood	quintal	0.93	550.00	511.50	
0771	Kerosene oil	litre	1.70	50.00	85.00	
9999	Sundries	L.S.	24.18	2.27	54.89	
9977	Carriage of materials	L.S.	24.18	2.27	54.89	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	897.00	2691.00	
0117	Assistant Fitter or 2nd class Fitter	day	3.00	816.00	2448.00	
0114	Beldar	day	6.00	736.00	4416.00	
	TOTAL				10639.48	W
	Add 1 % Water charges on “W”				106.39	
	TOTAL				10745.87	X
	Add GST on “X” (multiplying factor 0.2127)				2285.65	
	TOTAL				13031.52	Y
	Add 15% CPOH on “Y”				1954.73	
	TOTAL				14986.25	Z
	Add Cess @ 1% on “Z”				149.86	
	Cost of 10 joints				15136.11	
	Cost of one joint				1513.61	
	Say				1513.60	

18.28.8 400 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	7.40	61.00	451.40	
0761	Fuel wood	quintal	1.12	550.00	616.00	
	0.74x10=7.40 kg					
0771	Kerosene oil	litre	1.70	50.00	85.00	
9999	Sundries	L.S.	26.91	2.27	61.09	
9977	Carriage of materials	L.S.	26.91	2.27	61.09	
	LABOUR					
0116	Fitter (grade 1)	day	4.00	897.00	3588.00	
0117	Assistant Fitter or 2nd class Fitter	day	4.00	816.00	3264.00	
0114	Beldar	day	8.00	736.00	5888.00	
	TOTAL				14014.58	W
	Add 1 % Water charges on “W”				140.15	
	TOTAL				14154.73	X
	Add GST on “X” (multiplying factor 0.2127)				3010.71	
	TOTAL				17165.44	Y
	Add 15% CPOH on “Y”				2574.82	
	TOTAL				19740.26	Z
	Add Cess @ 1% on “Z”				197.40	
	Cost of 10 joints				19937.66	
	Cost of one joint				1993.77	
	Say				1993.75	

18.28.9 450 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	7.90	61.00	481.90	
	0.79x10=7.90 kg					
0761	Fuel wood	quintal	1.21	550.00	665.50	
0771	Kerosene oil	litre	2.27	50.00	113.50	
9999	Sundries	L.S.	31.07	2.27	70.53	
9977	Carriage of materials	L.S.	31.07	2.27	70.53	
	LABOUR					
0116	Fitter (grade 1)	day	4.50	897.00	4036.50	
0117	Assistant Fitter or 2nd class Fitter	day	4.50	816.00	3672.00	
0114	Beldar	day	9.00	736.00	6624.00	
	TOTAL				15734.46	W
	Add 1 % Water charges on “W”				157.34	
	TOTAL				15891.80	X
	Add GST on “X” (multiplying factor 0.2127)				3380.19	
	TOTAL				19271.99	Y
	Add 15% CPOH on “Y”				2890.80	
	TOTAL				22162.79	Z
	Add Cess @ 1% on “Z”				221.63	
	Cost of 10 joints				22384.42	
	Cost of one joint				2238.44	
	Say				2238.45	

18.28.10 500 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	8.50	61.00	518.50	
	0.85x10=8.50 kg					
0761	Fuel wood	quintal	1.31	550.00	720.50	
0771	Kerosene oil	litre	2.27	50.00	113.50	
9999	Sundries	L.S.	33.67	2.27	76.43	
9977	Carriage of materials	L.S.	33.67	2.27	76.43	
	LABOUR					
0116	Fitter (grade 1)	day	4.75	897.00	4260.75	
0117	Assistant Fitter or 2nd class Fitter	day	4.75	816.00	3876.00	
0114	Beldar	day	9.50	736.00	6992.00	
	TOTAL				16634.11	W
	Add 1 % Water charges on “W”				166.34	
	TOTAL				16800.45	X
	Add GST on “X” (multiplying factor 0.2127)				3573.46	
	TOTAL				20373.91	Y
	Add 15% CPOH on “Y”				3056.09	
	TOTAL				23430.00	Z
	Add Cess @ 1% on “Z”				234.30	
	Cost of 10 joints				23664.30	
	Cost of one joint				2366.43	
	Say				2366.45	

18.28.11 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	10.20	61.00	622.20	
	1.02x10=10.20 kg					
0761	Fuel wood	quintal	1.68	550.00	924.00	
0771	Kerosene oil	litre	2.84	50.00	142.00	
9999	Sundries	L.S.	40.30	2.27	91.48	
9977	Carriage of materials	L.S.	40.30	2.27	91.48	
	LABOUR					
0116	Fitter (grade 1)	day	6.50	897.00	5830.50	
0117	Assistant Fitter or 2nd class Fitter	day	6.50	816.00	5304.00	
0114	Beldar	day	13.00	736.00	9568.00	
	TOTAL				22573.66	W
	Add 1 % Water charges on “W”				225.74	
	TOTAL				22799.40	X
	Add GST on “X” (multiplying factor 0.2127)				4849.43	
	TOTAL				27648.83	Y
	Add 15% CPOH on “Y”				4147.32	
	TOTAL				31796.15	Z
	Add Cess @ 1% on “Z”				317.96	
	Cost of 10 joints				32114.11	
	Cost of one joint				3211.41	
	Say				3211.40	

18.29 Supplying pig lead at site of work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
1397	Pig lead	kilogram	100.00	210.00	21000.00	
2341	Carriage of Pig lead	tonne	0.10	0.00	0.00	
	TOTAL				21000.00	W
	Add 1 % Water charges on “W”				210.00	
	TOTAL				21210.00	X
	Add GST on “X” (multiplying factor 0.2127)				4511.37	
	TOTAL				25721.37	Y
	Add 15% CPOH on “Y”				3858.21	
	TOTAL				29579.58	Z
	Add Cess @ 1% on “Z”				295.80	
	Cost of one quintal				29875.38	
	Say				29875.40	

18.30 Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints :

18.30.1 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1373	Rubber insertions for 80 mm dia pipe joints	each	10.00	18.00	180.00	
1956	Bolts and nuts 16 mm dia 60 mm long	each	40.00	12.00	480.00	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.15	897.00	134.55	
0117	Assistant Fitter or 2nd class Fitter	day	0.15	816.00	122.40	
0114	Beldar	day	0.80	736.00	588.80	
	TOTAL				1511.95	W
	Add 1 % Water charges on “W”				15.12	
	TOTAL				1527.07	X
	Add GST on “X” (multiplying factor 0.2127)				324.81	
	TOTAL				1851.88	Y
	Add 15% CPOH on “Y”				277.78	
	TOTAL				2129.66	Z
	Add Cess @ 1% on “Z”				21.30	
	Cost for 10 joints				2150.96	
	Cost for one joint				215.10	
	Say				215.10	

18.30.2 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1374	Rubber insertions for 100 mm dia pipe joints	each	10.00	20.00	200.00	
1956	Bolts and nuts 16 mm dia 60 mm long	each	80.00	12.00	960.00	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0117	Assistant Fitter or 2nd class Fitter	day	0.25	816.00	204.00	
0114	Beldar	day	1.00	736.00	736.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2333.69	W
	Add 1 % Water charges on “W”				23.34	
	TOTAL				2357.03	X
	Add GST on “X” (multiplying factor 0.2127)				501.34	
	TOTAL				2858.37	Y
	Add 15% CPOH on “Y”				428.76	
	TOTAL				3287.13	Z
	Add Cess @ 1% on “Z”				32.87	
	Cost for 10 joints				3320.00	
	Cost for one joint				332.00	
	Say				332.00	

18.30.3 125 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1375	Rubber insertions for 125 mm dia pipe joints	each	10.00	18.00	180.00	
1957	Bolts and nuts 16 mm dia 65 mm long	each	80.00	14.00	1120.00	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0117	Assistant Fitter or 2nd class Fitter	day	0.25	816.00	204.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				2473.69	W
	Add 1 % Water charges on “W”				24.74	
	TOTAL				2498.43	X
	Add GST on “X” (multiplying factor 0.2127)				531.42	
	TOTAL				3029.85	Y
	Add 15% CPOH on “Y”				454.48	
	TOTAL				3484.33	Z
	Add Cess @ 1% on “Z”				34.84	
	Cost for 10 joints				3519.17	
	Cost for one joint				351.92	
	Say				351.90	

18.30.4 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1376	Rubber insertions for 150 mm dia pipe joints	each	10.00	19.00	190.00	
1958	Bolts and nuts 20 mm dia 65 mm long	each	80.00	15.00	1200.00	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.30	897.00	269.10	
0117	Assistant Fitter or 2nd class Fitter	day	0.30	816.00	244.80	
0114	Beldar	day	1.10	736.00	809.60	
	TOTAL				2722.94	W
	Add 1 % Water charges on “W”				27.23	
	TOTAL				2750.17	X
	Add GST on “X” (multiplying factor 0.2127)				584.96	
	TOTAL				3335.13	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				500.27	
	TOTAL				3835.40	Z
	Add Cess @ 1% on "Z"				38.35	
	Cost for 10 joints				3873.75	
	Cost for one joint				387.38	
	Say				387.40	

18.30.5 200 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1377	Rubber insertions for 200 mm dia pipe joints	each	10.00	24.00	240.00	
1959	Bolts and nuts 20 mm dia 70 mm long	each	80.00	18.00	1440.00	
9977	Carriage of materials	L.S.	4.16	2.27	9.44	
	LABOUR					
0116	Fitter (grade 1)	day	0.30	897.00	269.10	
0117	Assistant Fitter or 2nd class Fitter	day	0.30	816.00	244.80	
0114	Beldar	day	1.10	736.00	809.60	
	TOTAL				3012.94	W
	Add 1 % Water charges on "W"				30.13	
	TOTAL				3043.07	X
	Add GST on "X" (multiplying factor 0.2127)				647.26	
	TOTAL				3690.33	Y
	Add 15% CPOH on "Y"				553.55	
	TOTAL				4243.88	Z
	Add Cess @ 1% on "Z"				42.44	
	Cost for 10 joints				4286.32	
	Cost for one joint				428.63	
	Say				428.65	

18.30.6 250 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1378	Rubber insertions for 250 mm dia pipe joints	each	10.00	38.00	380.00	
1960	Bolts and nuts 20 mm dia 75 mm long	each	120.00	18.00	2160.00	
9977	Carriage of materials	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.40	897.00	358.80	
0117	Assistant Fitter or 2nd class Fitter	day	0.40	816.00	326.40	
0114	Beldar	day	1.30	736.00	956.80	
	TOTAL				4194.10	W
	Add 1 % Water charges on "W"				41.94	
	TOTAL				4236.04	X
	Add GST on "X" (multiplying factor 0.2127)				901.01	
	TOTAL				5137.05	Y
	Add 15% CPOH on "Y"				770.56	
	TOTAL				5907.61	Z
	Add Cess @ 1% on "Z"				59.08	
	Cost for 10 joints				5966.69	
	Cost for one joint				596.67	
	Say				596.65	

18.30.7 300 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1379	Rubber insertions for 300 mm dia pipe joints	each	10.00	40.00	400.00	
1960	Bolts and nuts 20 mm dia 75 mm long	each	120.00	18.00	2160.00	
9977	Carriage of materials	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.40	897.00	358.80	
0117	Assistant Fitter or 2nd class Fitter	day	0.40	816.00	326.40	
0114	Beldar	day	1.30	736.00	956.80	
	TOTAL				4214.10	W
	Add 1 % Water charges on “W”				42.14	
	TOTAL				4256.24	X
	Add GST on “X” (multiplying factor 0.2127)				905.30	
	TOTAL				5161.54	Y
	Add 15% CPOH on “Y”				774.23	
	TOTAL				5935.77	Z
	Add Cess @ 1% on “Z”				59.36	
	Cost for 10 joints				5995.13	
	Cost for one joint				599.51	
	Say				599.50	

18.30.8 350 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1380	Rubber insertions for 350 mm dia pipe joints	each	10.00	51.00	510.00	
1961	Bolts and nuts 20 mm dia 80 mm long	each	160.00	18.00	2880.00	
9977	Carriage of materials	L.S.	5.33	2.27	12.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0117	Assistant Fitter or 2nd class Fitter	day	0.50	816.00	408.00	
0114	Beldar	day	1.50	736.00	1104.00	
	TOTAL				5362.60	W
	Add 1 % Water charges on “W”				53.63	
	TOTAL				5416.23	X
	Add GST on “X” (multiplying factor 0.2127)				1152.03	
	TOTAL				6568.26	Y
	Add 15% CPOH on “Y”				985.24	
	TOTAL				7553.50	Z
	Add Cess @ 1% on “Z”				75.54	
	Cost for 10 joints				7629.04	
	Cost for one joint				762.90	
	Say				762.90	

18.30.9 400 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1381	Rubber insertions for 400 mm dia pipe joints	each	10.00	72.00	720.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1962	Bolts and nuts 24 mm dia 85 mm long	each	160.00	30.00	4800.00	
9977	Carriage of materials	L.S.	8.06	2.27	18.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0117	Assistant Fitter or 2nd class Fitter	day	0.50	816.00	408.00	
0114	Beldar	day	1.50	736.00	1104.00	
	TOTAL				7498.80	W
	Add 1 % Water charges on “W”				74.99	
	TOTAL				7573.79	X
	Add GST on “X” (multiplying factor 0.2127)				1610.95	
	TOTAL				9184.74	Y
	Add 15% CPOH on “Y”				1377.71	
	TOTAL				10562.45	Z
	Add Cess @ 1% on “Z”				105.62	
	Cost for 10 joints				10668.07	
	Cost for one joint				1066.81	
	Say				1066.80	

18.30.10 450 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1382	Rubber insertions for 450 mm dia pipe joints	each	10.00	88.00	880.00	
1962	Bolts and nuts 24 mm dia 85 mm long	each	200.00	30.00	6000.00	
9977	Carriage of materials	L.S.	8.06	2.27	18.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.60	897.00	538.20	
0117	Assistant Fitter or 2nd class Fitter	day	0.60	816.00	489.60	
0114	Beldar	day	1.70	736.00	1251.20	
	TOTAL				9177.30	W
	Add 1 % Water charges on “W”				91.77	
	TOTAL				9269.07	X
	Add GST on “X” (multiplying factor 0.2127)				1971.53	
	TOTAL				11240.60	Y
	Add 15% CPOH on “Y”				1686.09	
	TOTAL				12926.69	Z
	Add Cess @ 1% on “Z”				129.27	
	Cost for 10 joints				13055.96	
	Cost for one joint				1305.60	
	Say				1305.60	

18.30.11 500 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1383	Rubber insertions for 500 mm dia pipe joints	each	10.00	105.00	1050.00	
1963	Bolts and nuts 24 mm dia 90 mm long	each	200.00	33.00	6600.00	
9977	Carriage of materials	L.S.	8.06	2.27	18.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.65	897.00	583.05	
0117	Assistant Fitter or 2nd class Fitter	day	0.65	816.00	530.40	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	1.80	736.00	1324.80	
	TOTAL				10106.55	W
	Add 1 % Water charges on “W”				101.07	
	TOTAL				10207.62	X
	Add GST on “X” (multiplying factor 0.2127)				2171.16	
	TOTAL				12378.78	Y
	Add 15% CPOH on “Y”				1856.82	
	TOTAL				14235.60	Z
	Add Cess @ 1% on “Z”				142.36	
	Cost of 10 joints				14377.96	
	Cost for one joint				1437.80	
	Say				1437.80	

18.30.12 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1384	Rubber insertions for 600 mm dia pipe joints	each	10.00	120.00	1200.00	
1964	Bolts and nuts 27 mm dia 100 mm long	each	200.00	40.00	8000.00	
9977	Carriage of materials	L.S.	9.49	2.27	21.54	
	LABOUR					
0116	Fitter (grade 1)	day	0.75	897.00	672.75	
0117	Assistant Fitter or 2nd class Fitter	day	0.75	816.00	612.00	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				11978.29	W
	Add 1 % Water charges on “W”				119.78	
	TOTAL				12098.07	X
	Add GST on “X” (multiplying factor 0.2127)				2573.26	
	TOTAL				14671.33	Y
	Add 15% CPOH on “Y”				2200.70	
	TOTAL				16872.03	Z
	Add Cess @ 1% on “Z”				168.72	
	Cost for 10 joints				17040.75	
	Cost for one joint				1704.08	
	Say				1704.10	

18.31 Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :

18.31.1 100 mm diameter

18.31.1.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
1940	C.I.sluice valve (with caps) class I : 100 mm dia	each	10.00	2695.00	26950.00	
	Carriage of sluice valves wt.= 44.3x10=443kg= 0.443t. say 0.44t					
2309	Carriage of Cast iron fittings	tonne	0.44	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	4.43	661.85	2932.00	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
18.30.2	(Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	332.00	6640.00	A
	TOTAL				36522.00	W
	Add 1 % Water charges on "W-A"				269.50	
	TOTAL				36791.50	X
	Add GST on "X-A" (multiplying factor 0.2127)				5789.59	
	TOTAL				42581.09	Y
	Add 15% CPOH on "Y-A"				4951.36	
	TOTAL				47532.45	Z
	Add Cess @ 1% on "Z-A"				379.60	
	Cost of 10 valves				47912.05	
	Cost of 1 valve				4791.21	
	Say				4791.20	

18.31.1.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
3311	C.I.sluice valve (with caps) class II : 100 mm dia	each	10.00	2776.00	27760.00	
	Carriage of sluice valves 56.3x10=563kg= 0.563t=0.56t					
2309	Carriage of Cast iron fittings	tonne	0.56	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	661.85	3726.22	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.2	(Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	332.00	6640.00	A
	TOTAL				38126.22	W
	Add 1 % Water charges on "W-A"				277.60	
	TOTAL				38403.82	X
	Add GST on "X-A" (multiplying factor 0.2127)				5963.60	
	TOTAL				44367.42	Y
	Add 15% CPOH on "Y-A"				5100.18	
	TOTAL				49467.60	Z
	Add Cess @ 1% on "Z-A"				391.01	
	Cost of 10 valves				49858.61	
	Cost of 1 valve				4985.86	
	Say				4985.85	

18.31.2 125 mm diameter

18.31.2.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
1941	C.I.sluice valve (with caps) class I : 125 mm dia	each	10.00	2871.00	28710.00	
	Carriage of sluice valves wt. = 56.3x10=563kg = 0.563t. say 0.56t					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2309	Carriage of Cast iron fittings	tonne	0.56	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	661.85	3726.22	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.3	(Rate as per item No.18.30.3 Of SH: Water Supply)	each	20.00	351.90	7038.00	A
	TOTAL				39474.22	W
	Add 1 % Water charges on “W-A”				287.10	
	TOTAL				39761.32	X
	Add GST on “X-A” (multiplying factor 0.2127)				6167.68	
	TOTAL				45929.00	Y
	Add 15% CPOH on “Y-A”				5274.72	
	TOTAL				51203.72	Z
	Add Cess @ 1% on “Z-A”				404.40	
	Cost of 10 valves				51608.12	
	Cost of 1 valve				5160.81	
	Say				5160.80	

18.31.2.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
3314	C.I.sluice valve (with caps) class II : 125 mm dia	each	10.00	3365.00	33650.00	
	Carriage of sluice valves					
	wt. = 68.3x10=683kg = 0.68t say 0.68t					
2309	Carriage of Cast iron fittings	tonne	0.68	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	6.83	661.85	4520.44	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.3	(Rate as per item No.18.30.3 Of SH: Water Supply)	each	20.00	351.90	7038.00	A
	TOTAL				45208.44	W
	Add 1 % Water charges on “W-A”				336.50	
	TOTAL				45544.94	X
	Add GST on “X-A” (multiplying factor 0.2127)				7228.93	
	TOTAL				52773.87	Y
	Add 15% CPOH on “Y-A”				6182.31	
	TOTAL				58956.18	Z
	Add Cess @ 1% on “Z-A”				473.98	
	Cost of 10 valves				59430.16	
	Cost of 1 valve				5943.02	
	Say				5943.00	

18.31.3 150 mm diameter

18.31.3.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
1942	C.I.sluice valve (with caps) class I : 150 mm dia	each	10.00	4015.00	40150.00	
	Carriage of sluice valves					
	wt. = 72.5x10=725kg = 0.725t. say 0.72t					
2309	Carriage of Cast iron fittings	tonne	0.72	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	7.25	661.85	4798.41	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply)	each	20.00	387.40	7748.00	A
	TOTAL				52696.41	W
	Add 1 % Water charges on “W-A”				401.50	
	TOTAL				53097.91	X
	Add GST on “X-A” (multiplying factor 0.2127)				8625.30	
	TOTAL				61723.21	Y
	Add 15% CPOH on “Y-A”				7376.52	
	TOTAL				69099.73	Z
	Add Cess @ 1% on “Z-A”				565.53	
	Cost of 10 valves				69665.26	
	Cost of 1 valve				6966.53	
	Say				6966.55	

18.31.3.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
3317	C.I.sluice valve (with caps) class II : 150 mm dia	each	10.00	4193.00	41930.00	
	Carriage of sluice valves					
	wt. = 86.5x10=865kg = 0.865t. say 0.865t					
2309	Carriage of Cast iron fittings	tonne	0.865	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	8.65	661.85	5725.00	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply)	each	20.00	387.40	7748.00	A
	TOTAL				55403.00	W
	Add 1 % Water charges on “W-A”				419.30	
	TOTAL				55822.30	X
	Add GST on “X-A” (multiplying factor 0.2127)				9007.70	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				64830.00	Y
	Add 15% CPOH on "Y-A"				7703.55	
	TOTAL				72533.55	Z
	Add Cess @ 1% on "Z-A"				590.61	
	Cost of 10 valves				73124.16	
	Cost of 1 valve				7312.42	
	Say				7312.40	

18.31.4 200 mm diameter

18.31.4.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
1943	C.I.sluice valve (with caps) class I : 200 mm dia	each	10.00	8360.00	83600.00	
	Carriage of sluice valves					
	wt. = 121.5x10=1215kg = 1.215t. say 1.22t					
2309	Carriage of Cast iron fittings	tonne	1.22	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	12.15	661.85	8041.48	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.5	(Rate as per item No.18.30.5 Of SH: Water Supply)	each	20.00	428.65	8573.00	A
	TOTAL				100214.48	W
	Add 1 % Water charges on "W-A"				836.00	
	TOTAL				101050.48	X
	Add GST on "X-A" (multiplying factor 0.2127)				17959.54	
	TOTAL				119010.02	Y
	Add 15% CPOH on "Y-A"				15359.33	
	TOTAL				134369.35	Z
	Add Cess @ 1% on "Z-A"				1177.55	
	Cost of 10 valves				135546.90	
	Cost of 1 valve				13554.69	
	Say				13554.70	

18.31.4.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
3320	C.I.sluice valve (with caps) class II : 200 mm dia	each	10.00	8976.00	89760.00	
	Carriage of sluice valves					
	wt. = 150.5x10=1505 kg = 1.5 t. say 1.5 t					
2309	Carriage of Cast iron fittings	tonne	1.50	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	15.05	661.85	9960.84	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
18.30.5	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.5 Of SH: Water Supply)	each	20.00	428.65	8573.00	A
	TOTAL				108293.84	W
	Add 1 % Water charges on “W-A”				897.60	
	TOTAL				109191.44	X
	Add GST on “X-A” (multiplying factor 0.2127)				19282.87	
	TOTAL				128474.31	Y
	Add 15% CPOH on “Y-A”				16491.07	
	TOTAL				144965.38	Z
	Add Cess @ 1% on “Z-A”				1264.32	
	Cost of 10 valves				146229.70	
	Cost of 1 valve				14622.97	
	Say				14622.95	

18.31.5 250 mm diameter

18.31.5.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
1944	C.I.sluice valve (with caps) class I : 250 mm dia	each	10.00	12078.00	120780.00	
	Carriage of sluice valves wt. = 179.9x10=1799kg = 1.799t. say 1.80t					
2309	Carriage of Cast iron fittings	tonne	1.80	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	17.99	661.85	11906.68	A
18.30.6	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	596.65	11933.00	A
	TOTAL				144619.68	W
	Add 1 % Water charges on “W-A”				1207.80	
	TOTAL				145827.48	X
	Add GST on “X-A” (multiplying factor 0.2127)				25946.81	
	TOTAL				171774.29	Y
	Add 15% CPOH on “Y-A”				22190.19	
	TOTAL				193964.48	Z
	Add Cess @ 1% on “Z-A”				1701.25	
	Cost of 10 valves				195665.73	
	Cost of 1 valve				19566.57	
	Say				19566.55	

18.31.5.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
3321	C.I.sluice valve (with caps) class II : 250 mm dia	each	10.00	15400.00	154000.00	
	Carriage of sluice valves					
	wt. = 229.9x10=2299kg = 2299t. say 2.30t					
2309	Carriage of Cast iron fittings	tonne	2.30	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	22.99	661.85	15215.93	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.6	(Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	596.65	11933.00	A
	TOTAL				181148.93	W
	Add 1 % Water charges on “W-A”				1540.00	
	TOTAL				182688.93	X
	Add GST on “X-A” (multiplying factor 0.2127)				33083.36	
	TOTAL				215772.29	Y
	Add 15% CPOH on “Y-A”				28293.50	
	TOTAL				244065.79	Z
	Add Cess @ 1% on “Z-A”				2169.17	
	Cost of 10 valves				246234.96	
	Cost of 1 valve				24623.50	
	Say				24623.50	

18.31.6 300 mm diameter

18.31.6.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
1945	C.I.sluice valve (with caps) class I : 300 mm dia	each	10.00	17050.00	170500.00	
	Carriage of sluice valves					
	wt. = 242.4x10=2424kg = 2.424t. say 2.42t					
2309	Carriage of Cast iron fittings	tonne	2.42	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	24.24	661.85	16043.24	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.7	(Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	599.50	11990.00	A
	TOTAL				198533.24	W
	Add 1 % Water charges on “W-A”				1705.00	
	TOTAL				200238.24	X
	Add GST on “X-A” (multiplying factor 0.2127)				36628.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				236866.24	Y
	Add 15% CPOH on "Y-A"				31324.95	
	TOTAL				268191.19	Z
	Add Cess @ 1% on "Z-A"				2401.58	
	Cost of 10 valves				270592.77	
	Cost of 1 valve				27059.28	
	Say				27059.30	

18.31.6.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sluice valves					
	MATERIAL					
3326	C.I.sluice valve (with caps) class II : 300 mm dia	each	10.00	18976.00	189760.00	
	Carriage of sluice valves wt. = 303.4x10=3034kg = 3.304t. Say 3.03 tonne.					
2309	Carriage of Cast iron fittings	tonne	3.03	0.00	0.00	
	LABOUR for laying sluice valve					
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	30.34	661.85	20080.53	A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.					
18.30.7	(Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	599.50	11990.00	A
	TOTAL				221830.53	W
	Add 1 % Water charges on "W-A"				1897.60	
	TOTAL				223728.13	X
	Add GST on "X-A" (multiplying factor 0.2127)				40765.57	
	TOTAL				264493.70	Y
	Add 15% CPOH on "Y-A"				34863.48	
	TOTAL				299357.18	Z
	Add Cess @ 1% on "Z-A"				2672.87	
	Cost of 10 valves				302030.05	
	Cost of 1 valve				30203.01	
	Say				30203.00	

18.32 Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in reinforced cement concrete slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size), including necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :

18.32.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber					
	MATERIAL					
	(i) Earth work in excavation including refilling and disposal of surplus earth 0.68x0.68x0.65m=0.301cum.					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	0.30	260.30	78.09	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2.25	Rate as per item No.2.25	cum	0.30	196.00	58.80	A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size)					
	0.68x0.68x0.075m=0.035cum. Say 0.04 cum.					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete work	cum	0.04	6189.65	247.59	A
	(iii) Half brick masonry with FPS bricks of class 7.5 in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth					
	1.66mx0.50m=0.83 sqm					
6.12.2	Rate as per item no 6.12.2 of SH : Brick Work	sqm	0.83	905.05	751.19	A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement.					
	1.20x0.50=0.60sqm					
	0.30x0.30=0.09sqm.					
	Total =0.69sqm. Say 0.70sqm.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.70	449.55	314.69	A
1304	Surface box for stop cock	each	1.00	120.00	120.00	
	(vi)					
9977	Carriage of C.I. surface box	L.S.	1.43	2.27	3.25	
	(vii) Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20mm nominal size) in slab = 0.53mx0.53mx0.075m = 0.02107cum.					
	Less surface box 0.112x0.112x0.076 =(-)0.00094 cum.					
	= 0.0201 cum. Say 0.02cum.					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.02	9045.75	180.92	A
	(viii)T.M.T. bars steel reinforcement for R.C.C work					
	0.02 cumx80kg/cum. = 1.60kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	1.60	107.85	172.56	A
9999	Sundries	L.S.	4.16	2.27	9.44	
	TOTAL				1936.53	W
	Add 1 % Water charges on “W-A”				1.33	
	TOTAL				1937.86	X
	Add GST on “X-A” (multiplying factor 0.2127)				28.51	
	TOTAL				1966.37	Y
	Add 15% CPOH on “Y-A”				24.38	
	TOTAL				1990.75	Z
	Add Cess @ 1% on “Z-A”				1.87	
	Cost of one manhole				1992.62	
	Say				1992.60	

18.33 Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size) , including necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.33.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber					
	MATERIAL					
	(i) Earth work in excavation including refilling and disposal of surplus earth 1.21x1.21x1.00m=1.464cum.					
	Say 1.46 cum.					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.46	260.30	380.04	A
2.25	Rate as per item No.2.25 of SH: Earth Work	cum	1.46	196.00	286.16	A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum.					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.15	6189.65	928.45	A
	(iii) Second class brick work in cement mortar 1: 4(1 Cement : 4coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum.					
	Say 0.57 cum.					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.57	7370.65	4201.27	A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.40x0.75=1.80sqm. 0.60x0.60=0.36sqm. Total = 2.16sqm.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.16	449.55	971.03	A
	(v) C.I. surface box with hinged cover 100x100x75mm (inside)					
1305	Surface box for sluice valve	each	1.00	200.00	200.00	
	(vi)					
9977	Carriage of C.I. surface box	L.S.	8.06	2.27	18.30	
	(vii) Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand ; 3 graded stone aggregate 20mm nominal size) in slab = 1.06mx1.06mx0.15m = 0.1685 cum.					
	Less surface box 3.142/4xd2x0.18m -- 0.7854x0.156mx0.156mx0.18 = (-)0.0034 cum.					
	= 0.1651 cum. Say 0.17 cum.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work (viii)T.M.T. bars steel reinforcement for R.C.C work 0.165cum.x80kg/cum. = 13.2kg	cum	0.17	9045.75	1537.78	A
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work (ix) Form work 0.60mx0.60m=0.36sqm.+ 3.32mx0.15m=0.50sqm. = 0.86 sqm.	kg	13.20	107.85	1423.62	A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (x)	sqm	0.86	927.25	797.44	A
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				10762.39	W
	Add 1 % Water charges on “W-A”				2.37	
	TOTAL				10764.76	X
	Add GST on “X-A” (multiplying factor 0.2127)				50.83	
	TOTAL				10815.59	Y
	Add 15% CPOH on “Y-A”				43.47	
	TOTAL				10859.06	Z
	Add Cess @ 1% on “Z-A”				3.33	
	Cost of one manhole				10862.39	
	Say				10862.40	

18.34 Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size), including necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.34.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.51X1.51X1.25 m = 2.85cum.					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	2.85	260.30	741.86	A
2.25	Rate as per item No.2.25 of SH: Earth work (ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.51x1.51x0.1m=0.228cum. Say 0.23 cum.	cum	2.85	196.00	558.60	A
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work (iii) Second class brick work in cement foundations and plinth foundations and plinth	cum	0.23	6189.65	1423.62	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	4.52mx0.23mx1.00m=1.04cum.					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	1.04	7370.65	7665.48	A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement.					
	3.60mx1.00m=3.60sqm					
	0.90mx0.90m					
	=0.81sqm.					
	Total=4.41sqm.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.41	449.55	1982.52	A
	(v) C.I. surface box with chained lid.					
1305	Surface box for sluice valve	each	1.00	200.00	200.00	
9977	(vi) Carriage of C.I. surface box	L.S.	8.06	2.27	18.30	
	(vii) Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand ; 3 graded stone aggregate 20mm nominal size) in slab = 1.36mx1.36mx0.15m = 0.2774 cum.					
	Less surface box					
	0.7854x0.156mx0.156mx0.18m = (-)0.0034 cum.					
	= 0.2740 cum. Say 0.27 cum.					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.27	9045.75	2442.35	A
	(viii)T.M.T. bars steel reinforcement for R.C.C work					
	0.274cum.x80kg/cum. = 21.92 kg.					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	21.92	107.85	2364.07	A
	(ix) Form work					
	0.90mx0.90m=0.81sqm.+					
	4.52mx0.15m = 0.68 sqm.					
	Total= 1.49 sqm.					
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (x)	sqm	1.49	927.25	1381.60	A
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				18796.70	W
	Add 1 % Water charges on “W-A”				2.37	
	TOTAL				18799.07	X
	Add GST on “X-A” (multiplying factor 0.2127)				50.83	
	TOTAL				18849.90	Y
	Add 15% CPOH on “Y-A”				43.47	
	TOTAL				18893.37	Z
	Add Cess @ 1% on “Z-A”				3.33	
	Cost of one manhole				18896.70	
	Say				18896.70	

18.35 Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size), including necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.35.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.81X1.81X1.25M					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	4.10	260.30	1067.23	A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	4.10	196.00	803.60	A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.81x1.81x0.1m=0.328cum. Say 0.33 cum.					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.33	6189.65	2042.58	A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4coarse sand) in foundations and plinth 5.72mx0.23mx1.00m=1.316cum. Say 1.32 cum.					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	1.32	7370.65	9729.26	A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 4.80mx1.00m=4.80sqm. 1.20mx1.20m=1.44sqm. Total=6.24sqm.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	6.24	449.55	2805.19	A
	(v) C.I. surface box with chained lid					
1305	Surface box for sluice valve	each	1.00	200.00	200.00	
9977	(vi) Carriage of C.I. surface box	L.S.	8.06	2.27	18.30	
	(vii) Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20mm nominal size) in slab = 1.66mx1.66mx0.15m = 0.4133 cum. Less surface box 0.7854x0.156mx 0.156mx0.18m = (-)0.0034 cum. Total= 0.4099 cum. Say 0.41 cum.					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.41	9045.75	3708.76	A
	(viii)T.M.T. bars steel reinforcement for R.C.C work 0.41cum.x80kg/cum. = 32.80kg.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work (ix) Form work 1.20mx1.20m=1.44sqm.+ 5.72mx0.15m=0.86 sqm. Total = 2.30sqm.	kg	32.80	107.85	3537.48	A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (x)	sqm	2.30	927.25	2132.68	A
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				26063.38	W
	Add 1 % Water charges on “W-A”				2.37	
	TOTAL				26065.75	X
	Add GST on “X-A” (multiplying factor 0.2127)				50.83	
	TOTAL				26116.58	Y
	Add 15% CPOH on “Y-A”				43.47	
	TOTAL				26160.05	Z
	Add Cess @ 1% on “Z-A”				3.33	
	Cost of one manhole				26163.38	
	Say				26163.40	

18.36 Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) , including necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.36.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.21X1.00m = 1.464cum. Say 1.46cum.					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.46	260.30	380.04	A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.46	196.00	286.16	A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum.					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.15	6189.65	928.45	A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum. Say 0.57 cum.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work (iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.40mx0.75m=1.80sqm. 0.90mx0.90m =0.36sqm. Total=2.16sqm.	cum	0.57	7370.65	4201.27	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing (v) C.I. surface box with chained lid	sqm	2.16	449.55	971.03	A
1305	Surface box for sluice valve	each	1.00	200.00	200.00	
9977	(vi) Carriage of C.I. surface box	L.S.	53.82	2.27	122.17	
	(vii) Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20mm nominal size) in slab = 1.06mx1.06mx0.15m = 0.1685 cum. Less surface box 0.61x0.41mx0.15m= (-)0.0375 cum. = 0.131 cum. Say 0.13 cum.					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work (viii)T.M.T. bars steel reinforcement for R.C.C work 0.131cumx80kg/cum. = 10.48kg.	cum	0.13	9045.75	1175.95	A
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work (ix) Form work 0.60mx0.60m=0.36sqm.+ 3.32mx0.15m = 0.50 sqm. Total =0.86 sqm.	kg	10.48	107.85	1130.27	A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (x)	sqm	0.86	927.25	797.44	A
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				10211.08	W
	Add 1 % Water charges on “W-A”				3.40	
	TOTAL				10214.48	X
	Add GST on “X-A” (multiplying factor 0.2127)				73.14	
	TOTAL				10287.62	Y
	Add 15% CPOH on “Y-A”				62.55	
	TOTAL				10350.17	Z
	Add Cess @ 1% on “Z-A”				4.80	
	Cost of one manhole				10354.97	
	Say				10354.95	

18.37 Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) , including necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.37.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.06X0.85m = 1.09cum.					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.09	260.30	283.73	A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.09	196.00	213.64	A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.06x0.1m=0.128cum. Say 0.13 cum.					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.13	6189.65	804.65	A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 3.02mx0.23mx0.50m=0.347cum. Say 0.35 cum.					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.35	7370.65	2579.73	A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.10mx0.50m=1.05sqm. 0.60mx0.45m=0.27sqm. Total=1.32sq					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.32	449.55	593.41	A
	(v) C.I. surface box 400x200x200mm (inside) with locking arrangement					
1307	Surface box for water meter	each	1.00	200.00	200.00	
9977	(vi) Carriage of C.I. surface box	L.S.	13.52	2.27	30.69	
	(vii) Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand ; 3 graded stone aggregate 20mm nominal size) in slab = 1.06mx0.91mx0.25m = 0.241 cum. Less surface box 0.42x0.22mx0.2m = (-)0.018 cum. = 0.223 cum. Say 0.22 cum.					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.22	9045.75	1990.07	A
	(viii)T.M.T. bars steel reinforcement for R.C.C work steel @ 80kg/cum. 0.223cum.x80kg/cum. = 17.84 kg.					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	17.84	107.85	1924.04	A
	(x) Form work 0.60mx0.45m=0.27sqm.+ 3.02mx0.25m=0.76sqm.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Total = 1.03sqm.					
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	1.03	927.25	955.07	A
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				9593.33	W
	Add 1 % Water charges on "W-A"				2.49	
	TOTAL				9595.82	X
	Add GST on "X-A" (multiplying factor 0.2127)				53.49	
	TOTAL				9649.31	Y
	Add 15% CPOH on "Y-A"				45.75	
	TOTAL				9695.06	Z
	Add Cess @ 1% on "Z-A"				3.51	
	Cost of one manhole				9698.57	
	Say				9698.55	

18.38 Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :

18.38.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Perimeter = 0.0673 metre					
	Area=10x0.0673m = 0.673sqm.					
	Priming coat-					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.673	67.40	45.36	A
	Painting two coats excluding priming coat with white paint on new work.					
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	0.673	155.90	104.92	A
9999	Add for delay	L.S.	13.52	2.27	30.69	
	TOTAL				180.97	W
	Add 1 % Water charges on "W-A"				0.31	
	TOTAL				181.28	X
	Add GST on "X-A" (multiplying factor 0.2127)				6.59	
	TOTAL				187.87	Y
	Add 15% CPOH on "Y-A"				5.64	
	TOTAL				193.51	Z
	Add Cess @ 1% on "Z-A"				0.43	
	Cost of 10 metre				193.94	
	Cost of one metre				19.39	
	Say				19.40	

18.38.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Perimeter = 0.0845 metre					
	Area = 10x0.0845 sqm. = 0.845 sqm.					
	Priming coat-					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.845	67.40	56.95	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Painting two coats excluding priming coat with white paint on new work.					
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	0.845	155.90	131.74	A
9999	Add for delay	L.S.	13.52	2.27	30.69	
	TOTAL				219.38	W
	Add 1 % Water charges on “W-A”				0.31	
	TOTAL				219.69	X
	Add GST on “X-A” (multiplying factor 0.2127)				6.59	
	TOTAL				226.28	Y
	Add 15% CPOH on “Y-A”				5.64	
	TOTAL				231.92	Z
	Add Cess @ 1% on “Z-A”				0.43	
	Cost of 10 metre				232.35	
	Cost of one metre				23.24	
	Say				23.25	

18.38.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Perimeter = 0.1061 metre					
	Area = 10x0.1061 sqm. = 1.061 sqm.					
	Priming coat-					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.061	67.40	71.51	A
	Painting two coats excluding priming coat with white paint on new work.					
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.061	155.90	165.41	A
9999	Add for delay	L.S.	20.28	2.27	46.04	
	TOTAL				282.96	W
	Add 1 % Water charges on “W-A”				0.46	
	TOTAL				283.42	X
	Add GST on “X-A” (multiplying factor 0.2127)				9.89	
	TOTAL				293.31	Y
	Add 15% CPOH on “Y-A”				8.46	
	TOTAL				301.77	Z
	Add Cess @ 1% on “Z-A”				0.65	
	Cost of 10 metre				302.42	
	Cost of one metre				30.24	
	Say				30.25	

18.38.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Perimeter = 0.1334 metre					
	Area = 10x0.1334 sqm. = 1.334 sqm.					
	Priming coat-					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.334	67.40	89.91	A
	Painting two coats excluding priming coat with white paint on new work.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.334	155.90	207.97	A
9999	Add for delay	L.S.	20.28	2.27	46.04	
	TOTAL				343.92	W
	Add 1 % Water charges on “W-A”				0.46	
	TOTAL				344.38	X
	Add GST on “X-A” (multiplying factor 0.2127)				9.89	
	TOTAL				354.27	Y
	Add 15% CPOH on “Y-A”				8.46	
	TOTAL				362.73	Z
	Add Cess @ 1% on “Z-A”				0.65	
	Cost of 10 metre				363.38	
	Cost of one metre				36.34	
	Say				36.35	

18.38.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Perimeter = 0.1520 metre					
	Area = 10x0.1520 sqm. = 1.520 sqm.					
	Priming coat-					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.52	67.40	102.45	A
	Painting two coats excluding priming coat with white paint on new work.					
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.52	155.90	236.97	A
9999	Add for delay	L.S.	26.91	2.27	61.09	
	TOTAL				400.51	W
	Add 1 % Water charges on “W-A”				0.61	
	TOTAL				401.12	X
	Add GST on “X-A” (multiplying factor 0.2127)				13.12	
	TOTAL				414.24	Y
	Add 15% CPOH on “Y-A”				11.22	
	TOTAL				425.46	Z
	Add Cess @ 1% on “Z-A”				0.86	
	Cost of 10 metre				426.32	
	Cost of one metre				42.63	
	Say				42.65	

18.38.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Perimeter = 0.1894 metre					
	Area = 10x0.1894 sqm. = 1.894 sqm.					
	Priming coat-					
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.894	67.40	127.66	A
	Painting two coats excluding priming coat with white paint on new work.					
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.894	155.90	295.27	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Add for delay	L.S.	26.91	2.27	61.09	
	TOTAL				484.02	W
	Add 1 % Water charges on “W-A”				0.61	
	TOTAL				484.63	X
	Add GST on “X-A” (multiplying factor 0.2127)				13.12	
	TOTAL				497.75	Y
	Add 15% CPOH on “Y-A”				11.22	
	TOTAL				508.97	Z
	Add Cess @ 1% on “Z-A”				0.86	
	Cost of 10 metre				509.83	
	Cost of one metre				50.98	
	Say				51.00	

18.39 Repainting G.I. pipes and fittings with synthetic enamel white paint with one coat of approved quality :

18.39.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting one coat with white paint on old work.					
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.673	102.80	69.18	A
9999	Add for delay	L.S.	8.06	2.27	18.30	
	TOTAL				87.48	W
	Add 1 % Water charges on “W-A”				0.18	
	TOTAL				87.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				3.93	
	TOTAL				91.59	Y
	Add 15% CPOH on “Y-A”				3.36	
	TOTAL				94.95	Z
	Add Cess @ 1% on “Z-A”				0.26	
	Cost of 10 metre				95.21	
	Cost of one metre				9.52	
	Say				9.50	

18.39.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting one coat with white paint on old work.					
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.845	102.80	86.87	A
9999	Add for delay	L.S.	8.06	2.27	18.30	
	TOTAL				105.17	W
	Add 1 % Water charges on “W-A”				0.18	
	TOTAL				105.35	X
	Add GST on “X-A” (multiplying factor 0.2127)				3.93	
	TOTAL				109.28	Y
	Add 15% CPOH on “Y-A”				3.36	
	TOTAL				112.64	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on “Z-A”				0.26	
	Cost of 10 metre				112.90	
	Cost of one metre				11.29	
	Say				11.30	

18.39.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting one coat with white paint on old work.					
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.061	102.80	109.07	A
9999	Add for delay	L.S.	10.79	2.27	24.49	
	TOTAL				133.56	W
	Add 1 % Water charges on “W-A”				0.24	
	TOTAL				133.80	X
	Add GST on “X-A” (multiplying factor 0.2127)				5.26	
	TOTAL				139.06	Y
	Add 15% CPOH on “Y-A”				4.50	
	TOTAL				143.56	Z
	Add Cess @ 1% on “Z-A”				0.34	
	Cost of 10 metre				143.90	
	Cost of one metre				14.39	
	Say				14.40	

18.39.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting one coat with white paint on old work.					
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.334	102.80	137.14	A
9999	Add for delay	L.S.	10.92	2.27	24.79	
	TOTAL				161.93	W
	Add 1 % Water charges on “W-A”				0.25	
	TOTAL				162.18	X
	Add GST on “X-A” (multiplying factor 0.2127)				5.33	
	TOTAL				167.51	Y
	Add 15% CPOH on “Y-A”				4.56	
	TOTAL				172.07	Z
	Add Cess @ 1% on “Z-A”				0.35	
	Cost of 10 metre				172.42	
	Cost of one metre				17.24	
	Say				17.25	

18.39.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting one coat with white paint on old work.					
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.52	102.80	156.26	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Add for delay	L.S.	13.52	2.27	30.69	
	TOTAL				186.95	W
	Add 1 % Water charges on “W-A”				0.31	
	TOTAL				187.26	X
	Add GST on “X-A” (multiplying factor 0.2127)				6.59	
	TOTAL				193.85	Y
	Add 15% CPOH on “Y-A”				5.64	
	TOTAL				199.49	Z
	Add Cess @ 1% on “Z-A”				0.43	
	Cost of 10 metre				199.92	
	Cost of one metre				19.99	
	Say				20.00	

18.39.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting one coat with white paint on old work.					
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.894	102.80	194.70	A
9999	Add for delay	L.S.	13.52	2.27	30.69	
	TOTAL				225.39	W
	Add 1 % Water charges on “W-A”				0.31	
	TOTAL				225.70	X
	Add GST on “X-A” (multiplying factor 0.2127)				6.59	
	TOTAL				232.29	Y
	Add 15% CPOH on “Y-A”				5.64	
	TOTAL				237.93	Z
	Add Cess @ 1% on “Z-A”				0.43	
	Cost of 10 metre				238.36	
	Cost of one metre				23.84	
	Say				23.85	

18.40 Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :

18.40.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	0.673	140.25	94.39	A
9999	Add for delay	L.S.	8.06	2.27	18.30	
	TOTAL				112.69	W
	Add 1 % Water charges on “W-A”				0.18	
	TOTAL				112.87	X
	Add GST on “X-A” (multiplying factor 0.2127)				3.93	
	TOTAL				116.80	Y
	Add 15% CPOH on “Y-A”				3.36	
	TOTAL				120.16	Z
	Add Cess @ 1% on “Z-A”				0.26	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cost of 10 metre				120.42	
	Cost of one metre				12.04	
	Say				12.05	

18.40.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	0.845	140.25	118.51	A
9999	Add for delay	L.S.	8.06	2.27	18.30	
	TOTAL				136.81	W
	Add 1 % Water charges on “W-A”				0.18	
	TOTAL				136.99	X
	Add GST on “X-A” (multiplying factor 0.2127)				3.93	
	TOTAL				140.92	Y
	Add 15% CPOH on “Y-A”				3.36	
	TOTAL				144.28	Z
	Add Cess @ 1% on “Z-A”				0.26	
	Cost of 10 metre				144.54	
	Cost of one metre				14.45	
	Say				14.45	

18.40.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.061	140.25	148.81	A
9999	Add for delay	L.S.	10.79	2.27	24.49	
	TOTAL				173.30	W
	Add 1 % Water charges on “W-A”				0.24	
	TOTAL				173.54	X
	Add GST on “X-A” (multiplying factor 0.2127)				5.26	
	TOTAL				178.80	Y
	Add 15% CPOH on “Y-A”				4.50	
	TOTAL				183.30	Z
	Add Cess @ 1% on “Z-A”				0.34	
	Cost of 10 metre				183.64	
	Cost of one metre				18.36	
	Say				18.35	

18.40.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.334	140.25	187.09	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Add for delay	L.S.	10.79	2.27	24.49	
	TOTAL				211.58	W
	Add 1 % Water charges on “W-A”				0.24	
	TOTAL				211.82	X
	Add GST on “X-A” (multiplying factor 0.2127)				5.26	
	TOTAL				217.08	Y
	Add 15% CPOH on “Y-A”				4.50	
	TOTAL				221.58	Z
	Add Cess @ 1% on “Z-A”				0.34	
	Cost of 10 metre				221.92	
	Cost of one metre				22.19	
	Say				22.20	

18.40.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.52	140.25	213.18	A
9999	Add for delay	L.S.	12.22	2.27	27.74	
	TOTAL				240.92	W
	Add 1 % Water charges on “W-A”				0.28	
	TOTAL				241.20	X
	Add GST on “X-A” (multiplying factor 0.2127)				5.96	
	TOTAL				247.16	Y
	Add 15% CPOH on “Y-A”				5.10	
	TOTAL				252.26	Z
	Add Cess @ 1% on “Z-A”				0.39	
	Cost of 10 metre				252.65	
	Cost of one metre				25.27	
	Say				25.25	

18.40.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.894	140.25	265.63	A
9999	Add for delay	L.S.	12.22	2.27	27.74	
	TOTAL				293.37	W
	Add 1 % Water charges on “W-A”				0.28	
	TOTAL				293.65	X
	Add GST on “X-A” (multiplying factor 0.2127)				5.96	
	TOTAL				299.61	Y
	Add 15% CPOH on “Y-A”				5.10	
	TOTAL				304.71	Z
	Add Cess @ 1% on “Z-A”				0.39	
	Cost of 10 metre				305.10	
	Cost of one metre				30.51	
	Say				30.50	

18.40.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	2.387	140.25	334.78	A
9999	Add for delay	L.S.	13.52	2.27	30.69	
	TOTAL				365.47	W
	Add 1 % Water charges on “W-A”				0.31	
	TOTAL				365.78	X
	Add GST on “X-A” (multiplying factor 0.2127)				6.59	
	TOTAL				372.37	Y
	Add 15% CPOH on “Y-A”				5.64	
	TOTAL				378.01	Z
	Add Cess @ 1% on “Z-A”				0.43	
	Cost of 10 metre				378.44	
	Cost of one metre				37.84	
	Say				37.85	

18.40.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Painting with anti-corrosive paint two coats.					
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	2.796	140.25	392.14	A
9999	Add for delay	L.S.	14.82	2.27	33.64	
	TOTAL				425.78	W
	Add 1 % Water charges on “W-A”				0.34	
	TOTAL				426.12	X
	Add GST on “X-A” (multiplying factor 0.2127)				7.23	
	TOTAL				433.35	Y
	Add 15% CPOH on “Y-A”				6.18	
	TOTAL				439.53	Z
	Add Cess @ 1% on “Z-A”				0.47	
	Cost of 10 metre				440.00	
	Cost of one metre				44.00	
	Say				44.00	

18.41 Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :

18.41.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 15mm dia. pipe 10 metre long.					
	Width of sand filling = 300mm					
	Depth of sand filling					
	Under the pipe = 75mm+					
	Above the pipe = 150mm+					
	Max. external dia of pipe = 21.8mm					
	= 246.8mm say 247mm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Quantity of sand = 10x0.30x0.247 = 0.744 cum. Less for pipe = 3.142/4(21.8)²x10 = (-)0.004 cum. = 0.74 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.74	2087.30	1544.60	A
	TOTAL				1544.60	
	Cost of 10 metre				1544.60	
	Cost of one metre				154.46	
	Say				154.45	

18.41.1A Sub analysis item for sand filling component

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Sub analysis item for sand filling component					
	MATERIAL					
6501	Sand zone V (Jamuna)	cum	1.00	1320.00	1320.00	
2335	Carriage of Jamuna sand	cum	1.00	0.00	0.00	
	Labour:					
0114	Beldar	day	0.09	736.00	66.24	
0115	Coolie	day	0.11	736.00	80.96	
	TOTAL				1467.20	W
	Add 1 % Water charges on “W”				14.67	
	TOTAL				1481.87	X
	Add GST on “X” (multiplying factor 0.2127)				315.19	
	TOTAL				1797.06	Y
	Add 15% CPOH on “Y”				269.56	
	TOTAL				2066.62	Z
	Add Cess @ 1% on “Z”				20.67	
	Cost of one cum.				2087.29	
	Say				2087.30	

18.41.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 20mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 27.3mm = 252.3 Say 252mm Quantity of sand = 10x0.30x0.252 = 0.756 cum.+ Less for pipe =3.142/4(27.3)²x10 = (-)0.006cum. = 0.750 cum					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.75	2087.30	1565.48	A
	TOTAL				1565.48	
	Cost of 10 metre				1565.48	
	Cost of one metre				156.55	
	Say				156.55	

18.41.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 25mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 34.2mm = 259.2 Say 259mm Quantity of sand = 10x0.30x0.259 = 0.777 cum.+ Less for pipe 3.142/4(34.2)²x10 = (-)0.009cum. = 0.768 Say 0.77 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.77	2087.30	1607.22	A
	TOTAL				1607.22	
	Cost of 10 metre				1607.22	
	Cost of one metre				160.72	
	Say				160.70	

18.41.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 32mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 42.9mm = 267.9 Say 268mm Quantity of sand = 10x0.30x0.268 = 0.804 cum.+ Less for pipe 3.142/4(42.9)²x10 = (-)0.014cum. = 0.790 Say 0.79 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.79	2087.30	1648.97	A
	TOTAL				1648.97	
	Cost of 10 metre				1648.97	
	Cost of one metre				164.90	
	Say				164.90	

18.41.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 40mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 48.8mm = 273.8 Say 274mm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Quantity of sand = 10x0.30x0.274 = 0.82 cum.+ Less for pipe 3.142/4(48.8)²x10 = (-)0.014cum. = 0.801 Say 0.80 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.8	2087.30	1669.84	A
	TOTAL				1669.84	
	Cost of 10 metre				1669.84	
	Cost of one metre				166.98	
	Say				167.00	

18.41.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 50mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 60.8mm = 285.8 Say 286mm Quantity of sand = 10x0.30x0.286 = 0.858 cum.+ Less for pipe 3.142/4(60.8)²x10 = (-)0.029cum. = 0.829 Say 0.83 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.83	2087.30	1732.46	A
	TOTAL				1732.46	
	Cost of 10 metre				1732.46	
	Cost of one metre				173.25	
	Say				173.25	

18.41.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 65mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 76.6mm = 301.6 Say 302mm Quantity of sand = 10x0.45x0.302 = 1.359 cum.+ Less for pipe 3.142/4(76.6)²x10 = (-)0.046cum. = 1.313 Say 1.31 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.31	2087.30	2734.36	A
	TOTAL				2734.36	
	Cost of 10 metre				2734.36	
	Cost of one metre				273.44	
	Say				273.45	

18.41.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 80mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 89.9mm = 314.9 Say 315mm Quantity of sand = 10x0.45x0.315 = 1.418 cum.+ Less for pipe 3.142/4(89.9)²x10 = (-)0.0640cum. = 1.354 Say 1.35 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.35	2087.30	2817.86	A
	TOTAL				2817.86	
	Cost of 10 metre				2817.86	
	Cost of one metre				281.79	
	Say				281.80	

18.41.9 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 100mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 115mm = 340mm Quantity of sand = 10x0.45x0.34 = 1.53 cum.+ Less for pipe 3.142/4(0.115)²x10 = (-)0.10cum. = 1.43 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.43	2087.30	2984.84	A
	TOTAL				2984.84	
	Cost of 10 metre				2984.84	
	Cost of one metre				298.48	
	Say				298.50	

18.41.10 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of sand filling alround 150mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 166.5mm = 391.50mm Say 0.392m					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Quantity of sand = 10x0.60x0.392 = 2.35 cum.+ Less for pipe 3.142/4(0.167)²x10 = (-)0.22cum. = 2.13 cum.					
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	2.13	2087.30	4445.95	A
	TOTAL				4445.95	
	Cost of 10 metre				4445.95	
	Cost of one metre				444.60	
	Say				444.60	

18.42 Boring with 100 mm diameter casing pipe for hand pump / tubewell, in all soils except ordinary hard rocks requiring blasting, including removing the casing pipe after the hand pump / tube well is lowered and tested :

18.42.1 Up to 6 metres depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6m depth					
	LABOUR For boring and removing the pipe-					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0114	Beldar	day	3.00	736.00	2208.00	
0010	Hire charges of Derrick monkey rope and other accessories	day	0.50	850.00	425.00	
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre					
1472	Casing pipe 100 mm dia	metre	0.12	350.00	42.00	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				3154.19	W
	Add 1 % Water charges on “W”				31.54	
	TOTAL				3185.73	X
	Add GST on “X” (multiplying factor 0.2127)				677.60	
	TOTAL				3863.33	Y
	Add 15% CPOH on “Y”				579.50	
	TOTAL				4442.83	Z
	Add Cess @ 1% on “Z”				44.43	
	Cost of 6 metre				4487.26	
	Cost of one metre				747.88	
	Say				747.90	

18.42.2 Beyond 6 m and up to 12 m depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6m depth					
	LABOUR for boring and removing the pipe-					
0116	Fitter (grade 1)	day	0.62	897.00	556.14	
0114	Beldar	day	3.50	736.00	2576.00	
0010	Hire charges of Derrick monkey rope and other accessories	day	0.62	850.00	527.00	
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre					
1472	Casing pipe 100 mm dia	metre	0.12	350.00	42.00	
9999	Sundries	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				3731.83	W
	Add 1 % Water charges on “W”				37.32	
	TOTAL				3769.15	X
	Add GST on “X” (multiplying factor 0.2127)				801.70	
	TOTAL				4570.85	Y
	Add 15% CPOH on “Y”				685.63	
	TOTAL				5256.48	Z
	Add Cess @ 1% on “Z”				52.56	
	Cost of 6 metre				5309.04	
	Cost of one metre				884.84	
	Say				884.85	

18.42.3 Beyond 12 m and up to 18 m depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6m depth					
	LABOUR					
	For boring and removing the pipe-					
0116	Fitter (grade 1)	day	0.75	897.00	672.75	
0114	Beldar	day	4.00	736.00	2944.00	
0010	Hire charges of Derrickmonkey rope and other accessories	day	0.75	850.00	637.50	
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre					
1472	Casing pipe 100 mm dia	metre	0.12	350.00	42.00	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				4326.94	W
	Add 1 % Water charges on “W”				43.27	
	TOTAL				4370.21	X
	Add GST on “X” (multiplying factor 0.2127)				929.54	
	TOTAL				5299.75	Y
	Add 15% CPOH on “Y”				794.96	
	TOTAL				6094.71	Z
	Add Cess @ 1% on “Z”				60.95	
	Cost of 6 metre				6155.66	
	Cost of one metre				1025.94	
	Say				1025.95	

18.43 Providing and placing in position filters of 40 mm diameter G.I. pipe with brass strainer of approved quality.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one strainer 1.5 long					
	MATERIAL					
1882	Strainer brass 40 mm dia 1.5 metre long	each	1.00	688.00	688.00	
9977	Carriage to site	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.17	897.00	152.49	
0114	Beldar	day	0.17	736.00	125.12	
9999	Sundreis including hamp white lead etc.	L.S.	7.15	2.27	16.23	
	TOTAL				1012.53	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				10.13	
	TOTAL				1022.66	X
	Add GST on "X" (multiplying factor 0.2127)				217.52	
	TOTAL				1240.18	Y
	Add 15% CPOH on "Y"				186.03	
	TOTAL				1426.21	Z
	Add Cess @ 1% on "Z"				14.26	
	Cost of 1.5 metre				1440.47	
	Cost of one metre				960.31	
	Say				960.30	

18.44 Providing and fixing to filter and lowering to proper levels 40 mm G.I. pipe for tube well including cleaning and priming the tube well.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for a depth of 10 metre					
	MATERIAL					
1549	G.I. pipes 40 mm dia	metre	10.20	290.00	2958.00	
	Carriage of 40mm pipe= pipe weight + 2% for fiitings = 1.02 *10* 3.65 = 37 kg = 0.037 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.037	0.00	0.00	
9999	White lead, hamp and oil etc.	L.S.	6.76	2.27	15.35	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.75	736.00	552.00	
9999	Sundries	L.S.	7.25	2.27	16.46	
	TOTAL				3837.82	W
	Add 1 % Water charges on "W"				38.38	
	TOTAL				3876.20	X
	Add GST on "X" (multiplying factor 0.2127)				824.47	
	TOTAL				4700.67	Y
	Add 15% CPOH on "Y"				705.10	
	TOTAL				5405.77	Z
	Add Cess @ 1% on "Z"				54.06	
	Cost for 10 metre				5459.83	
	Cost of one metre				545.98	
	Say				546.00	

18.45 Providing and placing in position hand pump of approved quality for 40 mm diameter G.I. pipe complete with all accessories.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one pump					
	MATERIAL					
1693	S.C.I. hand pump	each	1.00	725.00	725.00	
9977	Carriage	L.S.	13.52	2.27	30.69	
	LABOUR					
0116	Fitter (grade 1)	day	0.10	897.00	89.70	
0114	Beldar	day	0.10	736.00	73.60	
9999	Sundries	L.S.	4.42	2.27	10.03	
	TOTAL				929.02	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				9.29	
	TOTAL				938.31	X
	Add GST on “X” (multiplying factor 0.2127)				199.58	
	TOTAL				1137.89	Y
	Add 15% CPOH on “Y”				170.68	
	TOTAL				1308.57	Z
	Add Cess @ 1% on “Z”				13.09	
	Cost for one hand pump				1321.66	
	Say				1321.65	

18.46 Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work):

18.46.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1641	G.I. Union 15 mm nominal bore	each	1.00	40.00	40.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				223.76	W
	Add 1 % Water charges on “W”				2.24	
	TOTAL				226.00	X
	Add GST on “X” (multiplying factor 0.2127)				48.07	
	TOTAL				274.07	Y
	Add 15% CPOH on “Y”				41.11	
	TOTAL				315.18	Z
	Add Cess @ 1% on “Z”				3.15	
	Cost for one no.				318.33	
	Say				318.35	

18.46.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1642	G.I. Union 20 mm nominal bore	each	1.00	60.00	60.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				243.76	W
	Add 1 % Water charges on “W”				2.44	
	TOTAL				246.20	X
	Add GST on “X” (multiplying factor 0.2127)				52.37	
	TOTAL				298.57	Y
	Add 15% CPOH on “Y”				44.79	
	TOTAL				343.36	Z
	Add Cess @ 1% on “Z”				3.43	
	Cost for one no.				346.79	
	Say				346.80	

18.46.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1643	G.I. Union 25 mm nominal bore	each	1.00	125.00	125.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				308.76	W
	Add 1 % Water charges on “W”				3.09	
	TOTAL				311.85	X
	Add GST on “X” (multiplying factor 0.2127)				66.33	
	TOTAL				378.18	Y
	Add 15% CPOH on “Y”				56.73	
	TOTAL				434.91	Z
	Add Cess @ 1% on “Z”				4.35	
	Cost for one no.				439.26	
	Say				439.25	

18.46.4 32 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1644	G.I. Union 32 mm nominal bore	each	1.00	160.00	160.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				343.76	W
	Add 1 % Water charges on “W”				3.44	
	TOTAL				347.20	X
	Add GST on “X” (multiplying factor 0.2127)				73.85	
	TOTAL				421.05	Y
	Add 15% CPOH on “Y”				63.16	
	TOTAL				484.21	Z
	Add Cess @ 1% on “Z”				4.84	
	Cost for one no.				489.05	
	Say				489.05	

18.46.5 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1645	G.I. Union 40 mm nominal bore	each	1.00	260.00	260.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
	TOTAL				443.76	W
	Add 1 % Water charges on “W”				4.44	
	TOTAL				448.20	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				95.33	
	TOTAL				543.53	Y
	Add 15% CPOH on “Y”				81.53	
	TOTAL				625.06	Z
	Add Cess @ 1% on “Z”				6.25	
	Cost for one no.				631.31	
	Say				631.30	

18.46.6 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1646	G.I. Union 50 mm nominal bore	each	1.00	330.00	330.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.15	897.00	134.55	
0114	Beldar	day	0.15	736.00	110.40	
	TOTAL				579.08	W
	Add 1 % Water charges on “W”				5.79	
	TOTAL				584.87	X
	Add GST on “X” (multiplying factor 0.2127)				124.40	
	TOTAL				709.27	Y
	Add 15% CPOH on “Y”				106.39	
	TOTAL				815.66	Z
	Add Cess @ 1% on “Z”				8.16	
	Cost for one no.				823.82	
	Say				823.80	

18.46.7 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1647	G.I. Union 65 mm nominal bore	each	1.00	550.00	550.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.15	897.00	134.55	
0114	Beldar	day	0.15	736.00	110.40	
	TOTAL				799.08	W
	Add 1 % Water charges on “W”				7.99	
	TOTAL				807.07	X
	Add GST on “X” (multiplying factor 0.2127)				171.66	
	TOTAL				978.73	Y
	Add 15% CPOH on “Y”				146.81	
	TOTAL				1125.54	Z
	Add Cess @ 1% on “Z”				11.26	
	Cost for one no.				1136.80	
	Say				1136.80	

18.46.8 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1648	G.I. Union 80mm nominal bore	each	1.00	600.00	600.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.15	897.00	134.55	
0114	Beldar	day	0.15	736.00	110.40	
	TOTAL				849.08	W
	Add 1 % Water charges on “W”				8.49	
	TOTAL				857.57	X
	Add GST on “X” (multiplying factor 0.2127)				182.41	
	TOTAL				1039.98	Y
	Add 15% CPOH on “Y”				156.00	
	TOTAL				1195.98	Z
	Add Cess @ 1% on “Z”				11.96	
	Cost for one no.				1207.94	
	Say				1207.95	

18.47 Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation, refilling the earth or cutting of wall and making good the same complete wherever required:

18.47.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1641	G.I. Union 15 mm nominal bore	each	1.00	40.00	40.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				583.02	W
	Add 1 % Water charges on “W”				5.83	
	TOTAL				588.85	X
	Add GST on “X” (multiplying factor 0.2127)				125.25	
	TOTAL				714.10	Y
	Add 15% CPOH on “Y”				107.12	
	TOTAL				821.22	Z
	Add Cess @ 1% on “Z”				8.21	
	Cost for one no.				829.43	
	Say				829.45	

18.47.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1642	G.I. Union 20 mm nominal bore	each	1.00	60.00	60.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				603.02	W
	Add 1 % Water charges on “W”				6.03	
	TOTAL				609.05	X
	Add GST on “X” (multiplying factor 0.2127)				129.54	
	TOTAL				738.59	Y
	Add 15% CPOH on “Y”				110.79	
	TOTAL				849.38	Z
	Add Cess @ 1% on “Z”				8.49	
	Cost for one no.				857.87	
	Say				857.85	

18.47.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1643	G.I. Union 25 mm nominal bore	each	1.00	125.00	125.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				668.02	W
	Add 1 % Water charges on “W”				6.68	
	TOTAL				674.70	X
	Add GST on “X” (multiplying factor 0.2127)				143.51	
	TOTAL				818.21	Y
	Add 15% CPOH on “Y”				122.73	
	TOTAL				940.94	Z
	Add Cess @ 1% on “Z”				9.41	
	Cost for one no.				950.35	
	Say				950.35	

18.47.4 32 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1644	G.I. Union 32 mm nominal bore	each	1.00	160.00	160.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				703.02	W
	Add 1 % Water charges on “W”				7.03	
	TOTAL				710.05	X
	Add GST on “X” (multiplying factor 0.2127)				151.03	
	TOTAL				861.08	Y
	Add 15% CPOH on “Y”				129.16	
	TOTAL				990.24	Z
	Add Cess @ 1% on “Z”				9.90	
	Cost for one no.				1000.14	
	Say				1000.15	

18.47.5 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1645	G.I. Union 40 mm nominal bore	each	1.00	260.00	260.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	0.33	736.00	242.88	
	TOTAL				803.02	W
	Add 1 % Water charges on “W”				8.03	
	TOTAL				811.05	X
	Add GST on “X” (multiplying factor 0.2127)				172.51	
	TOTAL				983.56	Y
	Add 15% CPOH on “Y”				147.53	
	TOTAL				1131.09	Z
	Add Cess @ 1% on “Z”				11.31	
	Cost for one no.				1142.40	
	Say				1142.40	

18.47.6 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1646	G.I. Union 50 mm nominal bore	each	1.00	330.00	330.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.45	897.00	403.65	
0114	Beldar	day	0.45	736.00	331.20	
	TOTAL				1068.98	W
	Add 1 % Water charges on “W”				10.69	
	TOTAL				1079.67	X
	Add GST on “X” (multiplying factor 0.2127)				229.65	
	TOTAL				1309.32	Y
	Add 15% CPOH on “Y”				196.40	
	TOTAL				1505.72	Z
	Add Cess @ 1% on “Z”				15.06	
	Cost for one no.				1520.78	
	Say				1520.80	

18.47.7 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1647	G.I. Union 65 mm nominal bore	each	1.00	550.00	550.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.45	897.00	403.65	
0114	Beldar	day	0.45	736.00	331.20	
	TOTAL				1288.98	W
	Add 1 % Water charges on “W”				12.89	
	TOTAL				1301.87	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				276.91	
	TOTAL				1578.78	Y
	Add 15% CPOH on "Y"				236.82	
	TOTAL				1815.60	Z
	Add Cess @ 1% on "Z"				18.16	
	Cost for one no.				1833.76	
	Say				1833.75	

18.47.8 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1648	G.I. Union 80mm nominal bore	each	1.00	600.00	600.00	
9988	Carriage of materials and sundries	L.S.	1.82	2.27	4.13	
	LABOUR					
0116	Fitter (grade 1)	day	0.45	897.00	403.65	
0114	Beldar	day	0.45	736.00	331.20	
	TOTAL				1338.98	W
	Add 1 % Water charges on "W"				13.39	
	TOTAL				1352.37	X
	Add GST on "X" (multiplying factor 0.2127)				287.65	
	TOTAL				1640.02	Y
	Add 15% CPOH on "Y"				246.00	
	TOTAL				1886.02	Z
	Add Cess @ 1% on "Z"				18.86	
	Cost for one no.				1904.88	
	Say				1904.90	

18.48 Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 500 litre					
	MATERIAL					
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	500.00	6.50	3250.00	
9977	Carriage to site	L.S.	179.40	2.27	407.24	
9999	Placing at terrace	L.S.	89.70	2.27	203.62	
	TOTAL				3860.86	W
	Add 1 % Water charges on "W"				38.61	
	TOTAL				3899.47	X
	Add GST on "X" (multiplying factor 0.2127)				829.42	
	TOTAL				4728.89	Y
	Add 15% CPOH on "Y"				709.33	
	TOTAL				5438.22	Z
	Add Cess @ 1% on "Z"				54.38	
	Cost for 500 litre				5492.60	
	Cost of one litre				10.99	
	Say				11.00	

18.48A Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. tank of 500 litre					
	MATERIAL					
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	500.00	6.50	3250.00	
9977	Carriage to site	L.S.	179.40	2.27	407.24	
9999	Placing at terrace	L.S.	89.70	2.27	203.62	
	TOTAL				3860.86	W
	Add 1 % Water charges on “W”				38.61	
	TOTAL				3899.47	X
	Add GST on “X” (multiplying factor 0.2127)				829.42	
	TOTAL				4728.89	Y
	Add 15% CPOH on “Y”				709.33	
	TOTAL				5438.22	Z
	Add Cess @ 1% on “Z”				54.38	
	Cost of 500 litre				5492.60	
	Cost of 1 litre				10.99	
	Say				11.00	

18.49 Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :

18.49.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7257	C.P. Brass bibcock 15 mm	each	1.00	330.00	330.00	
9988	Carrige of material and fixing charges	L.S.	11.57	2.27	26.26	
	TOTAL				356.26	W
	Add 1 % Water charges on “W”				3.56	
	TOTAL				359.82	X
	Add GST on “X” (multiplying factor 0.2127)				76.53	
	TOTAL				436.35	Y
	Add 15% CPOH on “Y”				65.45	
	TOTAL				501.80	Z
	Add Cess @ 1% on “Z”				5.02	
	Cost of 1 no.				506.82	
	Say				506.80	

18.50 Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.

18.50.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7258	C.P. Brass long nose bibcock 15 mm	each	1.00	540.00	540.00	
9988	Carrige of material and fixing charges	L.S.	16.25	2.27	36.89	
	TOTAL				576.89	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				5.77	
	TOTAL				582.66	X
	Add GST on “X” (multiplying factor 0.2127)				123.93	
	TOTAL				706.59	Y
	Add 15% CPOH on “Y”				105.99	
	TOTAL				812.58	Z
	Add Cess @ 1% on “Z”				8.13	
	Cost of 1 no.				820.71	
	Say				820.70	

18.51 Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.

18.51.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7259	C.P. Brass long body bibcock 15 mm	each	1.00	530.00	530.00	
9988	Carrige of material and fixing charges	L.S.	13.91	2.27	31.58	
	TOTAL				561.58	W
	Add 1 % Water charges on “W”				5.62	
	TOTAL				567.20	X
	Add GST on “X” (multiplying factor 0.2127)				120.64	
	TOTAL				687.84	Y
	Add 15% CPOH on “Y”				103.18	
	TOTAL				791.02	Z
	Add Cess @ 1% on “Z”				7.91	
	Cost of 1 no.				798.93	
	Say				798.95	

18.52 Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.

18.52.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7260	C.P. Brass stop cock (concealed) 15 mm	each	1.00	445.00	445.00	
9988	Carrige of material and fixing charges	L.S.	11.57	2.27	26.26	
	TOTAL				471.26	W
	Add 1 % Water charges on “W”				4.71	
	TOTAL				475.97	X
	Add GST on “X” (multiplying factor 0.2127)				101.24	
	TOTAL				577.21	Y
	Add 15% CPOH on “Y”				86.58	
	TOTAL				663.79	Z
	Add Cess @ 1% on “Z”				6.64	
	Cost of 1 no.				670.43	
	Say				670.45	

18.53 Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931

18.53.1 15mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7261	C.P. Brass angle valve 15 mm	each	1.00	378.00	378.00	
9988	Carriage and fixing charges	L.S.	11.31	2.27	25.67	
	TOTAL				403.67	W
	Add 1 % Water charges on “W”				4.04	
	TOTAL				407.71	X
	Add GST on “X” (multiplying factor 0.2127)				86.72	
	TOTAL				494.43	Y
	Add 15% CPOH on “Y”				74.16	
	TOTAL				568.59	Z
	Add Cess @ 1% on “Z”				5.69	
	Cost of 1 no.				574.28	
	Say				574.30	

18.53A Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
0593	C.P. Brass Extension Nipple (1/2”x2” size)	each	1.00	46.00	46.00	
9999	Sundries	L.S.	2.89	2.27	6.56	
	TOTAL				52.56	W
	Add 1 % Water charges on “W”				0.53	
	TOTAL				53.09	X
	Add GST on “X” (multiplying factor 0.2127)				11.29	
	TOTAL				64.38	Y
	Add 15% CPOH on “Y”				9.66	
	TOTAL				74.04	Z
	Add Cess @ 1% on “Z”				0.74	
	Cost of 1 no.				74.78	
	Say				74.80	

18.54 Providing and fixing PTMT bib cock of approved quality and colour.

18.54.1 15mm nominal bore, 86 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7400	15 mm PTMT bib cock	each	1.00	70.00	70.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				88.30	W
	Add 1 % Water charges on “W”				0.88	
	TOTAL				89.18	X
	Add GST on “X” (multiplying factor 0.2127)				18.97	
	TOTAL				108.15	Y
	Add 15% CPOH on “Y”				16.22	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				124.37	Z
	Add Cess @ 1% on “Z”				1.24	
	Cost of 1 no.				125.61	
	Say				125.60	

18.54.2 15 mm nominal bore, 122mm long, weighing not less than 99 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7401	15 mm PTMT bib cockwith flange (fancy)	each	1.00	95.00	95.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				113.30	W
	Add 1 % Water charges on “W”				1.13	
	TOTAL				114.43	X
	Add GST on “X” (multiplying factor 0.2127)				24.34	
	TOTAL				138.77	Y
	Add 15% CPOH on “Y”				20.82	
	TOTAL				159.59	Z
	Add Cess @ 1% on “Z”				1.60	
	Cost of 1 no.				161.19	
	Say				161.20	

18.54.3 15 mm nominal bore, 165 mm long, weighing not less than 110 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7402	15 mm PTMT bib cock long body with flange	each	1.00	106.00	106.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				124.30	W
	Add 1 % Water charges on “W”				1.24	
	TOTAL				125.54	X
	Add GST on “X” (multiplying factor 0.2127)				26.70	
	TOTAL				152.24	Y
	Add 15% CPOH on “Y”				22.84	
	TOTAL				175.08	Z
	Add Cess @ 1% on “Z”				1.75	
	Cost of 1 No..				176.83	
	Say				176.85	

18.54.4 15 mm nominal bore, 90 mm long, weighing not less than 93 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7859	P.T.M.T. Bib cock with nozzle 15mm	each	1.00	120.00	120.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				138.30	W
	Add 1 % Water charges on “W”				1.38	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				139.68	X
	Add GST on “X” (multiplying factor 0.2127)				29.71	
	TOTAL				169.39	Y
	Add 15% CPOH on “Y”				25.41	
	TOTAL				194.80	Z
	Add Cess @ 1% on “Z”				1.95	
	Cost of 1 no.				196.75	
	Say				196.75	

18.55 Providing and fixing PTMT stop cock of approved quality and colour.

18.55.1 15 mm nominal bore, 86 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7403	15 mm dia PTMT stop cock (male thread)	each	1.00	65.00	65.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				83.30	W
	Add 1 % Water charges on “W”				0.83	
	TOTAL				84.13	X
	Add GST on “X” (multiplying factor 0.2127)				17.89	
	TOTAL				102.02	Y
	Add 15% CPOH on “Y”				15.30	
	TOTAL				117.32	Z
	Add Cess @ 1% on “Z”				1.17	
	Cost of 1 no.				118.49	
	Say				118.50	

18.55.2 20 mm nominal bore, 89 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7405	20 mm dia. PTMT stop cock	each	1.00	73.00	73.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				91.30	W
	Add 1 % Water charges on “W”				0.91	
	TOTAL				92.21	X
	Add GST on “X” (multiplying factor 0.2127)				19.61	
	TOTAL				111.82	Y
	Add 15% CPOH on “Y”				16.77	
	TOTAL				128.59	Z
	Add Cess @ 1% on “Z”				1.29	
	Cost of 1 no.				129.88	
	Say				129.90	

18.55.3 Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7861	P.T.M.T. Stop cock (concealed) 15mm	each	1.00	135.00	135.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				153.30	W
	Add 1 % Water charges on “W”				1.53	
	TOTAL				154.83	X
	Add GST on “X” (multiplying factor 0.2127)				32.93	
	TOTAL				187.76	Y
	Add 15% CPOH on “Y”				28.16	
	TOTAL				215.92	Z
	Add Cess @ 1% on “Z”				2.16	
	Cost of 1 no.				218.08	
	Say				218.10	

18.56 Providing and fixing PTMT pillar cock of approved quality and colour.

18.56.1 15 mm nominal bore, 107 mm long, weighing not less than 110 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7406	PTMT pillar cock	each	1.00	125.00	125.00	
9988	Carriage of materials and fixing charges	L.S.	9.49	2.27	21.54	
	TOTAL				146.54	W
	Add 1 % Water charges on “W”				1.47	
	TOTAL				148.01	X
	Add GST on “X” (multiplying factor 0.2127)				31.48	
	TOTAL				179.49	Y
	Add 15% CPOH on “Y”				26.92	
	TOTAL				206.41	Z
	Add Cess @ 1% on “Z”				2.06	
	Cost of 1 no.				208.47	
	Say				208.45	

18.56.2 15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7410	PTMT pillar cock (fancy) 15 mm foam flow.	each	1.00	136.00	136.00	
9988	Carriage of materials and fixing charges	L.S.	9.49	2.27	21.54	
	TOTAL				157.54	W
	Add 1 % Water charges on “W”				1.58	
	TOTAL				159.12	X
	Add GST on “X” (multiplying factor 0.2127)				33.84	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				192.96	Y
	Add 15% CPOH on “Y”				28.94	
	TOTAL				221.90	Z
	Add Cess @ 1% on “Z”				2.22	
	Cost of 1 no.				224.12	
	Say				224.10	

18.57 Providing and fixing PTMT, push cock of approved quality and colour.

18.57.1 15 mm nominal bore, 98 mm long, weighing not less than 75 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7407	PTMT push cock 15 mm dia.	each	1.00	61.00	61.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				79.30	W
	Add 1 % Water charges on “W”				0.79	
	TOTAL				80.09	X
	Add GST on “X” (multiplying factor 0.2127)				17.04	
	TOTAL				97.13	Y
	Add 15% CPOH on “Y”				14.57	
	TOTAL				111.70	Z
	Add Cess @ 1% on “Z”				1.12	
	Cost of 1 no.				112.82	
	Say				112.80	

18.57.2 15 mm nominal bore, 80 mm long, weighing not less than 46 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7408	PTMT push cock 12 mm dia. 20 mm BSP	each	1.00	49.00	49.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				67.30	W
	Add 1 % Water charges on “W”				0.67	
	TOTAL				67.97	X
	Add GST on “X” (multiplying factor 0.2127)				14.46	
	TOTAL				82.43	Y
	Add 15% CPOH on “Y”				12.36	
	TOTAL				94.79	Z
	Add Cess @ 1% on “Z”				0.95	
	Cost of 1 no.				95.74	
	Say				95.75	

18.58 Providing and fixing PTMT grating of approved quality and colour.

18.58.1 Circular type

18.58.1.1 100 mm nominal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7409	PTMT grating 100 mm dia.	each	1.00	17.00	17.00	
9988	Carriage of materials and fixing charges	L.S.	4.16	2.27	9.44	
	TOTAL				26.44	W
	Add 1 % Water charges on “W”				0.26	
	TOTAL				26.70	X
	Add GST on “X” (multiplying factor 0.2127)				5.68	
	TOTAL				32.38	Y
	Add 15% CPOH on “Y”				4.86	
	TOTAL				37.24	Z
	Add Cess @ 1% on “Z”				0.37	
	Cost of 1 no.				37.61	
	Say				37.60	

18.58.1.2 125 mm nominal dia with 25 mm waste hole

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7411	125 mm grating withwaste hole	each	1.00	27.00	27.00	
9988	Carriage of materials and fixing charges	L.S.	4.16	2.27	9.44	
	TOTAL				36.44	W
	Add 1 % Water charges on “W”				0.36	
	TOTAL				36.80	X
	Add GST on “X” (multiplying factor 0.2127)				7.83	
	TOTAL				44.63	Y
	Add 15% CPOH on “Y”				6.69	
	TOTAL				51.32	Z
	Add Cess @ 1% on “Z”				0.51	
	Cost of 1 no.				51.83	
	Say				51.85	

18.58.2 Rectangular type with openable circular lid

18.58.2.1 150 mm nominal size square 100 mm diameter of the inner hinged round grating

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia. (110 gm)	each	1.00	129.00	129.00	
9988	Carriage of materials and fixing charges	L.S.	4.16	2.27	9.44	
	TOTAL				138.44	W
	Add 1 % Water charges on “W”				1.38	
	TOTAL				139.82	X
	Add GST on “X” (multiplying factor 0.2127)				29.74	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				169.56	Y
	Add 15% CPOH on "Y"				25.43	
	TOTAL				194.99	Z
	Add Cess @ 1% on "Z"				1.95	
	Cost of 1 no.				196.94	
	Say				196.95	

18.59 Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :

18.59.1 50 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 no. double acting air valves					
	MATERIAL					
7415	Double acting air valve 50 mm	each	10.00	3875.00	38750.00	
9977	Carriage of air valves	L.S.	26.00	2.27	59.02	
9999	Labour for laying double acting air valve	L.S.	39.00	2.27	88.53	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	10.00	215.10	2151.00	A
	TOTAL				41048.55	W
	Add 1 % Water charges on "W-A"				388.98	
	TOTAL				41437.53	X
	Add GST on "X-A" (multiplying factor 0.2127)				8356.24	
	TOTAL				49793.77	Y
	Add 15% CPOH on "Y-A"				7146.42	
	TOTAL				56940.19	Z
	Add Cess @ 1% on "Z-A"				547.89	
	Cost of 10 air valves				57488.08	
	Cost of 1 air valve				5748.81	
	Say				5748.80	

18.59.2 80 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 no. double acting air valves					
	MATERIAL					
7416	Double acting air valve 80 mm	each	10.00	4750.00	47500.00	
9977	Carriage of air valves	L.S.	26.00	2.27	59.02	
9999	Labour for laying double acting air valve	L.S.	39.00	2.27	88.53	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	10.00	215.10	2151.00	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				49798.55	W
	Add 1 % Water charges on "W-A"				476.48	
	TOTAL				50275.03	X
	Add GST on "X-A" (multiplying factor 0.2127)				10235.98	
	TOTAL				60511.01	Y
	Add 15% CPOH on "Y-A"				8754.00	
	TOTAL				69265.01	Z
	Add Cess @ 1% on "Z-A"				671.14	
	Cost of 10 air valves				69936.15	
	Cost of 1 air valve				6993.62	
	Say				6993.60	

18.59.3 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 no. double acting air valves					
	MATERIAL					
7417	Double acting air valve 100 mm	each	10.00	6000.00	60000.00	
9977	Carriage of air valves	L.S.	26.00	2.27	59.02	
9999	Labour for laying double acting air valve	L.S.	52.00	2.27	118.04	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.2	(Rate as per item No.18.30.2 Of SH:Water Supply)	each	10.00	332.00	3320.00	A
	TOTAL				63497.06	W
	Add 1 % Water charges on "W-A"				601.77	
	TOTAL				64098.83	X
	Add GST on "X-A" (multiplying factor 0.2127)				12927.66	
	TOTAL				77026.49	Y
	Add 15% CPOH on "Y-A"				11055.97	
	TOTAL				88082.46	Z
	Add Cess @ 1% on "Z-A"				847.62	
	Cost of 10 air valves				88930.08	
	Cost of 1 air valve				8893.01	
	Say				8893.00	

18.60 Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately):

18.60.1 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. water meter					
	MATERIAL					
7418	Water meter (including testing charges) 80 mm	each	1.00	2100.00	2100.00	
9977	Carriage of water meter	L.S.	26.00	2.27	59.02	
9999	Labour for laying water meter	L.S.	39.00	2.27	88.53	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	2.00	215.10	430.20	A
	TOTAL				2677.75	W
	Add 1 % Water charges on “W-A”				22.48	
	TOTAL				2700.23	X
	Add GST on “X-A” (multiplying factor 0.2127)				482.84	
	TOTAL				3183.07	Y
	Add 15% CPOH on “Y-A”				412.93	
	TOTAL				3596.00	Z
	Add Cess @ 1% on “Z-A”				31.66	
	Cost of 1 water meter				3627.66	
	Say				3627.65	

18.60.2 100 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. water meter					
	MATERIAL					
7419	Water meter (including testing charges) 100 mm	each	1.00	3200.00	3200.00	
9977	Carriage of water meter	L.S.	26.00	2.27	59.02	
9999	Labour for laying water meter	L.S.	52.00	2.27	118.04	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.2	(Rate as per item No.18.30.2)	each	2.00	332.00	664.00	A
	TOTAL				4041.06	W
	Add 1 % Water charges on “W-A”				33.77	
	TOTAL				4074.83	X
	Add GST on “X-A” (multiplying factor 0.2127)				725.48	
	TOTAL				4800.31	Y
	Add 15% CPOH on “Y-A”				620.45	
	TOTAL				5420.76	Z
	Add Cess @ 1% on “Z-A”				47.57	
	Cost of 1 water meter				5468.33	
	Say				5468.35	

18.60.3 150 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. water meter					
	MATERIAL					
7420	Water meter (including testing charges) 150 mm	each	1.00	5130.00	5130.00	
9977	Carriage of water meter	L.S.	39.00	2.27	88.53	
9999	Labour for laying water meter	L.S.	65.00	2.27	147.55	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply)	each	2.00	387.40	774.80	A
	TOTAL				6140.88	W
	Add 1 % Water charges on “W-A”				53.66	
	TOTAL				6194.54	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				1152.78	
	TOTAL				7347.32	Y
	Add 15% CPOH on "Y-A"				985.88	
	TOTAL				8333.20	Z
	Add Cess @ 1% on "Z-A"				75.58	
	Cost of 1 water meter				8408.78	
	Say				8408.80	

18.60.4 200 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. water meter					
	MATERIAL					
7421	Water meter (including testing charges) 200 mm	each	1.00	5400.00	5400.00	
9977	Carriage of water meter	L.S.	52.00	2.27	118.04	
9999	Labour for laying water meter	L.S.	104.00	2.27	236.08	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.5	(Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	428.65	857.30	A
	TOTAL				6611.42	W
	Add 1 % Water charges on "W-A"				57.54	
	TOTAL				6668.96	X
	Add GST on "X-A" (multiplying factor 0.2127)				1236.14	
	TOTAL				7905.10	Y
	Add 15% CPOH on "Y-A"				1057.17	
	TOTAL				8962.27	Z
	Add Cess @ 1% on "Z-A"				81.05	
	Cost of 1 water meter				9043.32	
	Say				9043.30	

18.61 Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS : 2373:

18.61.1 80 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for on no. dirt box strainer					
	MATERIAL					
7422	Dirt box srainer 80 mm	each	1.00	2800.00	2800.00	
9977	Carriage of dirt box strainer	L.S.	26.00	2.27	59.02	
9999	Labour for laying dirt box strainer	L.S.	39.00	2.27	88.53	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	2.00	215.10	430.20	A
	TOTAL				3377.75	W
	Add 1 % Water charges on "W-A"				29.48	
	TOTAL				3407.23	X
	Add GST on "X-A" (multiplying factor 0.2127)				633.21	
	TOTAL				4040.44	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				541.54	
	TOTAL				4581.98	Z
	Add Cess @ 1% on "Z-A"				41.52	
	Cost of 1 dirt box stainer				4623.50	
	Say				4623.50	

18.61.2 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no. dirt box stainer					
	MATERIAL					
7423	Dirt box srainer 100 mm	each	1.00	4600.00	4600.00	
9977	Carriage of dirt box strainer	L.S.	26.00	2.27	59.02	
9999	Labour for laying dirt box strainer	L.S.	52.00	2.27	118.04	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.2	(Rate as per item No.18.30.2 Of SH:Water Supply)	each	2.00	332.00	664.00	A
	TOTAL				5441.06	W
	Add 1 % Water charges on "W-A"				47.77	
	TOTAL				5488.83	X
	Add GST on "X-A" (multiplying factor 0.2127)				1026.24	
	TOTAL				6515.07	Y
	Add 15% CPOH on "Y-A"				877.66	
	TOTAL				7392.73	Z
	Add Cess @ 1% on "Z-A"				67.29	
	Cost of 1 dirt box stainer				7460.02	
	Say				7460.00	

18.61.3 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no. dirt box stainer					
	MATERIAL					
7424	Dirt box srainer 150 mm	each	1.00	5850.00	5850.00	
9977	Carriage of dirt box strainer	L.S.	39.00	2.27	88.53	
9999	Labour for laying dirt box strainer	L.S.	65.00	2.27	147.55	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.4	(Rate as per item No.18.30.4 Of SH:Water Supply)	each	2.00	387.40	774.80	A
	TOTAL				6860.88	W
	Add 1 % Water charges on "W-A"				60.86	
	TOTAL				6921.74	X
	Add GST on "X-A" (multiplying factor 0.2127)				1307.45	
	TOTAL				8229.19	Y
	Add 15% CPOH on "Y-A"				1118.16	
	TOTAL				9347.35	Z
	Add Cess @ 1% on "Z-A"				85.73	
	Cost for 1 dirt box stainer				9433.08	
	Say				9433.10	

18.61.4 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. dirt box stainer					
	MATERIAL					
7425	Dirt box srainer 200 mm	each	1.00	8130.00	8130.00	
9977	Carriage of dirt box strainer	L.S.	52.00	2.27	118.04	
9999	Labour for laying dirt box strainer	L.S.	104.00	2.27	236.08	
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.					
18.30.5	(Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	428.65	857.30	A
	TOTAL				9341.42	W
	Add 1 % Water charges on “W-A”				84.84	
	TOTAL				9426.26	X
	Add GST on “X-A” (multiplying factor 0.2127)				1822.62	
	TOTAL				11248.88	Y
	Add 15% CPOH on “Y-A”				1558.74	
	TOTAL				12807.62	Z
	Add Cess @ 1% on “Z-A”				119.50	
	Cost for 10 dirt box stainer				12927.12	
	Say				12927.10	

18.62 Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.

18.62.1 15 mm nominal bore, 105 mm long, weighing not less than 138 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7495	PTMT Ball Cock 15mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	79.00	79.00	
9988	Carriage of materials and fixing charges	L.S.	21.58	2.27	48.99	
	TOTAL				127.99	W
	Add 1 % Water charges on “W”				1.28	
	TOTAL				129.27	X
	Add GST on “X” (multiplying factor 0.2127)				27.50	
	TOTAL				156.77	Y
	Add 15% CPOH on “Y”				23.52	
	TOTAL				180.29	Z
	Add Cess @ 1% on “Z”				1.80	
	Cost of one no.				182.09	
	Say				182.10	

18.62.2 20 mm nominal bore, 120 mm long, weighing not less than 198 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7496	PTMT Ball Cock 20mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	120.00	120.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Carriage of materials and fixing charges	L.S.	26.91	2.27	61.09	
	TOTAL				181.09	W
	Add 1 % Water charges on “W”				1.81	
	TOTAL				182.90	X
	Add GST on “X” (multiplying factor 0.2127)				38.90	
	TOTAL				221.80	Y
	Add 15% CPOH on “Y”				33.27	
	TOTAL				255.07	Z
	Add Cess @ 1% on “Z”				2.55	
	Cost of one no.				257.62	
	Say				257.60	

18.62.3 25 mm nominal bore, 152mm long, weighing not less than 440 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7497	PTMT Ball Cock 25mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	295.00	295.00	
9988	Carriage of materials and fixing charges	L.S.	32.24	2.27	73.18	
	TOTAL				368.18	W
	Add 1 % Water charges on “W”				3.68	
	TOTAL				371.86	X
	Add GST on “X” (multiplying factor 0.2127)				79.09	
	TOTAL				450.95	Y
	Add 15% CPOH on “Y”				67.64	
	TOTAL				518.59	Z
	Add Cess @ 1% on “Z”				5.19	
	Cost of one no.				523.78	
	Say				523.80	

18.62.4 40 mm nominal bore, 206mm long, weighing not less than 690 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7498	PTMT Ball Cock 40mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	445.00	445.00	
9988	Carriage of materials and fixing charges	L.S.	32.24	2.27	73.18	
	TOTAL				518.18	W
	Add 1 % Water charges on “W”				5.18	
	TOTAL				523.36	X
	Add GST on “X” (multiplying factor 0.2127)				111.32	
	TOTAL				634.68	Y
	Add 15% CPOH on “Y”				95.20	
	TOTAL				729.88	Z
	Add Cess @ 1% on “Z”				7.30	
	Cost of one no.				737.18	
	Say				737.20	

18.62.5 50 mm nominal bore, 242mm long, weighing not less than 1240 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7499	PTMT Ball Cock 50mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	894.00	894.00	
9988	Carriage of materials and fixing charges	L.S.	32.24	2.27	73.18	
	TOTAL				967.18	W
	Add 1 % Water charges on “W”				9.67	
	TOTAL				976.85	X
	Add GST on “X” (multiplying factor 0.2127)				207.78	
	TOTAL				1184.63	Y
	Add 15% CPOH on “Y”				177.69	
	TOTAL				1362.32	Z
	Add Cess @ 1% on “Z”				13.62	
	Cost of one no.				1375.94	
	Say				1375.95	

18.63 Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7500	PTMT Angle Stop cock with Flenge 15mm	each	1.00	92.00	92.00	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				110.30	W
	Add 1 % Water charges on “W”				1.10	
	TOTAL				111.40	X
	Add GST on “X” (multiplying factor 0.2127)				23.69	
	TOTAL				135.09	Y
	Add 15% CPOH on “Y”				20.26	
	TOTAL				155.35	Z
	Add Cess @ 1% on “Z”				1.55	
	Cost of one no.				156.90	
	Say				156.90	

18.64 Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7501	PTMT Swiveling shower 15mm	each	1.00	70.00	70.00	
9988	Carriage of materials and fixing charges	L.S.	6.76	2.27	15.35	
	TOTAL				85.35	W
	Add 1 % Water charges on “W”				0.85	
	TOTAL				86.20	X
	Add GST on “X” (multiplying factor 0.2127)				18.33	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				104.53	Y
	Add 15% CPOH on "Y"				15.68	
	TOTAL				120.21	Z
	Add Cess @ 1% on "Z"				1.20	
	Cost of one no.				121.41	
	Say				121.40	

18.65 Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no					
	MATERIAL					
7509	PTMT Soap Dish/Holder 138x102x75mm	each	1.00	63.00	63.00	
9988	Carriage of materials and fixing charges	L.S.	6.76	2.27	15.35	
	TOTAL				78.35	W
	Add 1 % Water charges on "W"				0.78	
	TOTAL				79.13	X
	Add GST on "X" (multiplying factor 0.2127)				16.83	
	TOTAL				95.96	Y
	Add 15% CPOH on "Y"				14.39	
	TOTAL				110.35	Z
	Add Cess @ 1% on "Z"				1.10	
	Cost of one no				111.45	
	Say				111.45	

18.66 Providing and laying S&S C.I. Standard specials such as tees, bends, collars tapers and caps etc, suitable for flanged jointing as per IS : 1538 :

18.66.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7708	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing upto 300mm dia	quintal	1.00	5600.00	5600.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				6261.85	W
	Add 1 % Water charges on "W-A"				56.00	
	TOTAL				6317.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				1203.03	
	TOTAL				7520.88	Y
	Add 15% CPOH on "Y-A"				1028.85	
	TOTAL				8549.73	Z
	Add Cess @ 1% on "Z-A"				78.88	
	Cost of 1 quintal				8628.61	
	Say				8628.60	

18.66.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7709	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing over 300mm dia	quintal	1.00	6675.00	6675.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				7336.85	W
	Add 1 % Water charges on “W-A”				66.75	
	TOTAL				7403.60	X
	Add GST on “X-A” (multiplying factor 0.2127)				1433.97	
	TOTAL				8837.57	Y
	Add 15% CPOH on “Y-A”				1226.36	
	TOTAL				10063.93	Z
	Add Cess @ 1% on “Z-A”				94.02	
	Cost of 1 quintal				10157.95	
	Say				10157.95	

18.67 Providing and laying S&S C.I. Standard specials suitable for mechanical jointing as per IS : 13382 :

18.67.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7710	S&S Centrifugally (Spun) C.I. Pipe specials suitable for mechanical joint as per I.S. 13382 upto 300mm dia	quintal	1.00	9210.00	9210.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				9871.85	W
	Add 1 % Water charges on “W-A”				92.10	
	TOTAL				9963.95	X
	Add GST on “X-A” (multiplying factor 0.2127)				1978.56	
	TOTAL				11942.51	Y
	Add 15% CPOH on “Y-A”				1692.10	
	TOTAL				13634.61	Z
	Add Cess @ 1% on “Z-A”				129.73	
	Cost of 1 quintal				13764.34	
	Say				13764.35	

18.67.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7711	S&S Centrifugally (Spun) C.I. Pipe Specials suitabe for mechanical joint as per IS 13382 over 300mm dia	quintal	1.00	9750.00	9750.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for Laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				10411.85	W
	Add 1 % Water charges on “W-A”				97.50	
	TOTAL				10509.35	X
	Add GST on “X-A” (multiplying factor 0.2127)				2094.56	
	TOTAL				12603.91	Y
	Add 15% CPOH on “Y-A”				1791.31	
	TOTAL				14395.22	Z
	Add Cess @ 1% on “Z-A”				137.33	
	Cost of 1 quintal				14532.55	
	Say				14532.55	

18.68 Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523:

18.68.1 Up to 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7682	Ductile Iron K - 12 specials suitable for push on jointing upto 600 mm dia	quintal	1.00	13600.00	13600.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				14261.85	W
	Add 1 % Water charges on “W-A”				136.00	
	TOTAL				14397.85	X
	Add GST on “X-A” (multiplying factor 0.2127)				2921.65	
	TOTAL				17319.50	Y
	Add 15% CPOH on “Y-A”				2498.65	
	TOTAL				19818.15	Z
	Add Cess @ 1% on “Z-A”				191.56	
	Cost of 1 quintal				20009.71	
	Say				20009.70	

18.68.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7683	Ductile Iron K - 12 specials suitable for push on jointing over 600mm dia	quintal	1.00	18300.00	18300.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				18961.85	W
	Add 1 % Water charges on “W-A”				183.00	
	TOTAL				19144.85	X
	Add GST on “X-A” (multiplying factor 0.2127)				3931.33	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				23076.18	Y
	Add 15% CPOH on "Y-A"				3362.15	
	TOTAL				26438.33	Z
	Add Cess @ 1% on "Z-A"				257.76	
	Cost of 1 quintal				26696.09	
	Say				26696.10	

18.68A Providing and laying Class K-12 Ductile Iron double chamber restrained joint (bolt less) specials such as tees, bends, collars, tapers and caps etc. conforming to IS 9523 including testing of joints all complete.

18.68A.1 Up to 600 mm nominal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
	Ductile Iron restrain Jointed K - 12 specials suitable for push on jointing up to 600 mm dia					
7589	Ductile Iron double chamber restrained joint (bolt less) fittings class K12 upto 600 mm nominal dia	quintal	1.00	20900.00	20900.00	
2309	Carriage of DI K - 12 restrained jointed specials	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				21561.85	W
	Add 1 % Water charges on "W-A"				209.00	
	TOTAL				21770.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				4489.88	
	TOTAL				26260.73	Y
	Add 15% CPOH on "Y-A"				3839.83	
	TOTAL				30100.56	Z
	Add Cess @ 1% on "Z-A"				294.39	
	Cost of 1 quintal				30394.95	
	Say				30394.95	

18.68A.2 Above 600 mm nominal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
	Ductile Iron restrain Joint K - 12 specials suitable for push on jointing above 600 mm dia					
7590	Ductile Iron double chamber restrained joint (bolt less) fittings class K12 above 600 mm nominal dia	quintal	1.00	27000.00	27000.00	
2309	Carriage of DI K - 12 restrained joint specials	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				27661.85	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W-A"				270.00	
	TOTAL				27931.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				5800.33	
	TOTAL				33732.18	Y
	Add 15% CPOH on "Y-A"				4960.55	
	TOTAL				38692.73	Z
	Add Cess @ 1% on "Z-A"				380.31	
	Cost of 1 quintal				39073.04	
	Say				39073.05	

18.69 Providing and laying D.I. Specials of Class K - 12 suitable for mechanical jointing as per IS: 9523:

18.69.1 Up to 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7684	Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 -upto 600mm dia	quintal	1.00	14500.00	14500.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				15161.85	W
	Add 1 % Water charges on "W-A"				145.00	
	TOTAL				15306.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				3114.99	
	TOTAL				18421.84	Y
	Add 15% CPOH on "Y-A"				2664.00	
	TOTAL				21085.84	Z
	Add Cess @ 1% on "Z-A"				204.24	
	Cost of 1 quintal				21290.08	
	Say				21290.10	

18.69.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 quintal					
	MATERIAL					
7685	Ductile Iron Specials suitable for mechancial jointing as per I.S. 9523 over 600mm dia	quintal	1.00	19500.00	19500.00	
2309	Carriage of Cast iron fittings	tonne	0.10	0.00	0.00	
	Labour for laying					
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	661.85	661.85	A
	TOTAL				20161.85	W
	Add 1 % Water charges on "W-A"				195.00	
	TOTAL				20356.85	X
	Add GST on "X-A" (multiplying factor 0.2127)				4189.13	
	TOTAL				24545.98	Y
	Add 15% CPOH on "Y-A"				3582.62	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				28128.60	Z
	Add Cess @ 1% on “Z-A”				274.67	
	Cost of 1 quintal				28403.27	
	Say				28403.25	

18.70 Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket:

18.70.1 100 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7666	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 100mm dia	each	50.00	35.00	1750.00	
	Labour					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0117	Assistant Fitter or 2nd class Fitter	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				4199.00	W
	Add 1 % Water charges on “W”				41.99	
	TOTAL				4240.99	X
	Add GST on “X” (multiplying factor 0.2127)				902.06	
	TOTAL				5143.05	Y
	Add 15% CPOH on “Y”				771.46	
	TOTAL				5914.51	Z
	Add Cess @ 1% on “Z”				59.15	
	Cost of 50 joints				5973.66	
	Cost of 1 joint				119.47	
	Say				119.45	

18.70.2 150 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7668	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 150mm dia	each	50.00	40.00	2000.00	
	Labour					
0116	Fitter (grade 1)	day	1.50	897.00	1345.50	
0117	Assistant Fitter or 2nd class Fitter	day	1.50	816.00	1224.00	
0114	Beldar	day	3.00	736.00	2208.00	
	TOTAL				6777.50	W
	Add 1 % Water charges on “W”				67.78	
	TOTAL				6845.28	X
	Add GST on “X” (multiplying factor 0.2127)				1455.99	
	TOTAL				8301.27	Y
	Add 15% CPOH on “Y”				1245.19	
	TOTAL				9546.46	Z
	Add Cess @ 1% on “Z”				95.46	
	Cost of 50 joints				9641.92	
	Cost of 1 joint				192.84	
	Say				192.85	

18.70.3 200 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7669	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 200mm dia	each	50.00	70.00	3500.00	
	LABOUR					
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0117	Assistant Fitter or 2nd class Fitter	day	2.00	816.00	1632.00	
0114	Beldar	day	4.00	736.00	2944.00	
	TOTAL				9870.00	W
	Add 1 % Water charges on “W”				98.70	
	TOTAL				9968.70	X
	Add GST on “X” (multiplying factor 0.2127)				2120.34	
	TOTAL				12089.04	Y
	Add 15% CPOH on “Y”				1813.36	
	TOTAL				13902.40	Z
	Add Cess @ 1% on “Z”				139.02	
	Cost of 50 joints				14041.42	
	Cost of 1 joint				280.83	
	Say				280.85	

18.70.4 250 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7670	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 250mm dia	each	50.00	80.00	4000.00	
	LABOUR					
0116	Fitter (grade 1)	day	2.50	897.00	2242.50	
0117	Assistant Fitter or 2nd class Fitter	day	2.50	816.00	2040.00	
0114	Beldar	day	5.00	736.00	3680.00	
	TOTAL				11962.50	W
	Add 1 % Water charges on “W”				119.63	
	TOTAL				12082.13	X
	Add GST on “X” (multiplying factor 0.2127)				2569.87	
	TOTAL				14652.00	Y
	Add 15% CPOH on “Y”				2197.80	
	TOTAL				16849.80	Z
	Add Cess @ 1% on “Z”				168.50	
	Cost of 50 joints				17018.30	
	Cost of 1 joint				340.37	
	Say				340.35	

18.70.5 300 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7671	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 300mm dia	each	50.00	115.00	5750.00	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	897.00	2691.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0117	Assistant Fitter or 2nd class Fitter	day	3.00	816.00	2448.00	
0114	Beldar	day	6.00	736.00	4416.00	
	TOTAL				15305.00	W
	Add 1 % Water charges on “W”				153.05	
	TOTAL				15458.05	X
	Add GST on “X” (multiplying factor 0.2127)				3287.93	
	TOTAL				18745.98	Y
	Add 15% CPOH on “Y”				2811.90	
	TOTAL				21557.88	Z
	Add Cess @ 1% on “Z”				215.58	
	Cost of 50 joints				21773.46	
	Cost of 1 joint				435.47	
	Say				435.45	

18.70.6 350 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7672	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 350mm dia	each	50.00	125.00	6250.00	
	LABOUR					
0116	Fitter (grade 1)	day	3.50	897.00	3139.50	
0117	Assistant Fitter or 2nd class Fitter	day	3.50	816.00	2856.00	
0114	Beldar	day	7.00	736.00	5152.00	
	TOTAL				17397.50	W
	Add 1 % Water charges on “W”				173.98	
	TOTAL				17571.48	X
	Add GST on “X” (multiplying factor 0.2127)				3737.45	
	TOTAL				21308.93	Y
	Add 15% CPOH on “Y”				3196.34	
	TOTAL				24505.27	Z
	Add Cess @ 1% on “Z”				245.05	
	Cost of 50 joints				24750.32	
	Cost of 1 joint				495.01	
	Say				495.00	

18.70.7 400 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7673	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 400mm dia	each	50.00	235.00	11750.00	
	LABOUR					
0116	Fitter (grade 1)	day	4.00	897.00	3588.00	
0117	Assistant Fitter or 2nd class Fitter	day	4.00	816.00	3264.00	
0114	Beldar	day	8.00	736.00	5888.00	
	TOTAL				24490.00	W
	Add 1 % Water charges on “W”				244.90	
	TOTAL				24734.90	X
	Add GST on “X” (multiplying factor 0.2127)				5261.11	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				29996.01	Y
	Add 15% CPOH on “Y”				4499.40	
	TOTAL				34495.41	Z
	Add Cess @ 1% on “Z”				344.95	
	Cost of 50 joints				34840.36	
	Cost of 1 joint				696.81	
	Say				696.80	

18.70.8 450 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7674	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 450mm dia	each	50.00	290.00	14500.00	
	LABOUR					
0116	Fitter (grade 1)	day	4.50	897.00	4036.50	
0117	Assistant Fitter or 2nd class Fitter	day	4.50	816.00	3672.00	
0114	Beldar	day	9.00	736.00	6624.00	
	TOTAL				28832.50	W
	Add 1 % Water charges on “W”				288.33	
	TOTAL				29120.83	X
	Add GST on “X” (multiplying factor 0.2127)				6194.00	
	TOTAL				35314.83	Y
	Add 15% CPOH on “Y”				5297.22	
	TOTAL				40612.05	Z
	Add Cess @ 1% on “Z”				406.12	
	Cost of 50 joints				41018.17	
	Cost of 1 joint				820.36	
	Say				820.35	

18.70.9 500 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7675	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 500mm dia	each	50.00	310.00	15500.00	
	LABOUR					
0116	Fitter (grade 1)	day	4.75	897.00	4260.75	
0117	Assistant Fitter or 2nd class Fitter	day	4.75	816.00	3876.00	
0114	Beldar	day	9.50	736.00	6992.00	
	TOTAL				30628.75	W
	Add 1 % Water charges on “W”				306.29	
	TOTAL				30935.04	X
	Add GST on “X” (multiplying factor 0.2127)				6579.88	
	TOTAL				37514.92	Y
	Add 15% CPOH on “Y”				5627.24	
	TOTAL				43142.16	Z
	Add Cess @ 1% on “Z”				431.42	
	Cost of 50 joints				43573.58	
	Cost of 1 joint				871.47	
	Say				871.45	

18.70.10 600 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7676	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 600mm dia	each	50.00	435.00	21750.00	
	LABOUR					
0116	Fitter (grade 1)	day	6.50	897.00	5830.50	
0117	Assistant Fitter or 2nd class Fitter	day	6.50	816.00	5304.00	
0114	Beldar	day	13.00	736.00	9568.00	
	TOTAL				42452.50	W
	Add 1 % Water charges on “W”				424.53	
	TOTAL				42877.03	X
	Add GST on “X” (multiplying factor 0.2127)				9119.94	
	TOTAL				51996.97	Y
	Add 15% CPOH on “Y”				7799.55	
	TOTAL				59796.52	Z
	Add Cess @ 1% on “Z”				597.97	
	Cost of 50 joints				60394.49	
	Cost of 1 joint				1207.89	
	Say				1207.90	

18.70.11 700 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7677	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 700mm dia	each	50.00	615.00	30750.00	
	LABOUR					
0116	Fitter (grade 1)	day	7.70	897.00	6906.90	
0117	Assistant Fitter or 2nd class Fitter	day	7.70	816.00	6283.20	
0114	Beldar	day	15.40	736.00	11334.40	
	TOTAL				55274.50	W
	Add 1 % Water charges on “W”				552.75	
	TOTAL				55827.25	X
	Add GST on “X” (multiplying factor 0.2127)				11874.46	
	TOTAL				67701.71	Y
	Add 15% CPOH on “Y”				10155.26	
	TOTAL				77856.97	Z
	Add Cess @ 1% on “Z”				778.57	
	Cost of 50 joints				78635.54	
	Cost of 1 joint				1572.71	
	Say				1572.70	

18.70.12 750 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7678	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 750mm dia	each	50.00	700.00	35000.00	
	LABOUR					
0116	Fitter (grade 1)	day	7.70	897.00	6906.90	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0117	Assistant Fitter or 2nd class Fitter	day	7.70	816.00	6283.20	
0114	Beldar	day	15.40	736.00	11334.40	
	TOTAL				59524.50	W
	Add 1 % Water charges on “W”				595.25	
	TOTAL				60119.75	X
	Add GST on “X” (multiplying factor 0.2127)				12787.47	
	TOTAL				72907.22	Y
	Add 15% CPOH on “Y”				10936.08	
	TOTAL				83843.30	Z
	Add Cess @ 1% on “Z”				838.43	
	Cost of 50 joints				84681.73	
	Cost of 1 joint				1693.63	
	Say				1693.65	

18.70.13 800 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7679	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 800mm dia	each	50.00	755.00	37750.00	
	LABOUR					
0116	Fitter (grade 1)	day	8.50	897.00	7624.50	
0117	Assistant Fitter or 2nd class Fitter	day	8.50	816.00	6936.00	
0114	Beldar	day	17.00	736.00	12512.00	
	TOTAL				64822.50	W
	Add 1 % Water charges on “W”				648.23	
	TOTAL				65470.73	X
	Add GST on “X” (multiplying factor 0.2127)				13925.62	
	TOTAL				79396.35	Y
	Add 15% CPOH on “Y”				11909.45	
	TOTAL				91305.80	Z
	Add Cess @ 1% on “Z”				913.06	
	Cost of 50 joints				92218.86	
	Cost of 1 joint				1844.38	
	Say				1844.40	

18.70.14 900 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7680	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 900mm dia	each	50.00	990.00	49500.00	
	LABOUR					
0116	Fitter (grade 1)	day	10.00	897.00	8970.00	
0117	Assistant Fitter or 2nd class Fitter	day	10.00	816.00	8160.00	
0114	Beldar	day	20.00	736.00	14720.00	
	TOTAL				81350.00	W
	Add 1 % Water charges on “W”				813.50	
	TOTAL				82163.50	X
	Add GST on “X” (multiplying factor 0.2127)				17476.18	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				99639.68	Y
	Add 15% CPOH on “Y”				14945.95	
	TOTAL				114585.63	Z
	Add Cess @ 1% on “Z”				1145.86	
	Cost of 50 joints				115731.49	
	Cost of 1 joint				2314.63	
	Say				2314.65	

18.70.15 1000 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 50 Joints					
	MATERIAL					
7681	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 1000mm dia	each	50.00	1130.00	56500.00	
	LABOUR					
0116	Fitter (grade 1)	day	11.00	897.00	9867.00	
0117	Assistant Fitter or 2nd class Fitter	day	11.00	816.00	8976.00	
0114	Beldar	day	22.00	736.00	16192.00	
	TOTAL				91535.00	W
	Add 1 % Water charges on “W”				915.35	
	TOTAL				92450.35	X
	Add GST on “X” (multiplying factor 0.2127)				19664.19	
	TOTAL				112114.54	Y
	Add 15% CPOH on “Y”				16817.18	
	TOTAL				128931.72	Z
	Add Cess @ 1% on “Z”				1289.32	
	Cost of 50 joints				130221.04	
	Cost of 1 joint				2604.42	
	Say				2604.40	

18.71 Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536) :

18.71.1 100 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	100 mm dia. cast iron pipes double flanged = 27.00 Kg					
	Weight of 5 m pipes 27.00x5 = 135.00 Kg					
7712	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 100mm dia	metre	5.00	1400.00	7000.00	
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.35	361.65	488.23	A
	TOTAL				7488.23	W
	Add 1 % Water charges on “W-A”				70.00	
	TOTAL				7558.23	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				1503.79	
	TOTAL				9062.02	Y
	Add 15% CPOH on "Y-A"				1286.07	
	TOTAL				10348.09	Z
	Add Cess @ 1% on "Z-A"				98.60	
	Cost of 5 metre				10446.69	
	Cost of metre				2089.34	
	Say				2089.35	

18.71.2 150 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	150 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 44.10 Kg					
	Weight of 5 m pipes = 44.10x5 = 220.50 Kg					
7713	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 150mm dia	metre	5.00	2150.00	10750.00	
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.21	361.65	799.25	A
	TOTAL				11549.25	W
	Add 1 % Water charges on "W-A"				107.50	
	TOTAL				11656.75	X
	Add GST on "X-A" (multiplying factor 0.2127)				2309.39	
	TOTAL				13966.14	Y
	Add 15% CPOH on "Y-A"				1975.03	
	TOTAL				15941.17	Z
	Add Cess @ 1% on "Z-A"				151.42	
	Cost of 5 metre				16092.59	
	Cost per metre				3218.52	
	Say				3218.50	

18.71.3 200 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	200 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 63.50 Kg					
	Weight of 5 m pipes 63.50x5 = 317.50 Kg					
7714	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 200mm dia	metre	5.00	3350.00	16750.00	
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.05	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.18	361.65	1150.05	A
	TOTAL				17900.05	W
	Add 1 % Water charges on “W-A”				167.50	
	TOTAL				18067.55	X
	Add GST on “X-A” (multiplying factor 0.2127)				3598.35	
	TOTAL				21665.90	Y
	Add 15% CPOH on “Y-A”				3077.38	
	TOTAL				24743.28	Z
	Add Cess @ 1% on “Z-A”				235.93	
	Cost of 5 metre				24979.21	
	Cost per metre				4995.84	
	Say				4995.85	

18.71.4 250 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	250 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 85.30 Kg					
	Weight of 5 m pipes 85.30x5 = 426.50 Kg					
7715	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 250mm dia	metre	5.00	4160.00	20800.00	
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.27	361.65	1544.25	A
	TOTAL				22344.25	W
	Add 1 % Water charges on “W-A”				208.00	
	TOTAL				22552.25	X
	Add GST on “X-A” (multiplying factor 0.2127)				4468.40	
	TOTAL				27020.65	Y
	Add 15% CPOH on “Y-A”				3821.46	
	TOTAL				30842.11	Z
	Add Cess @ 1% on “Z-A”				292.98	
	Cost of 5 metre				31135.09	
	Cost per metre				6227.02	
	Say				6227.00	

18.71.5 300 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	300 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 110.00 Kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Weight of 5 m pipes 110.00x5 = 550.00 Kg					
7716	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 300mm dia	metre	5.00	5410.00	27050.00	
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	5.50	361.65	1989.08	A
	TOTAL				29039.08	W
	Add 1 % Water charges on “W-A”				270.50	
	TOTAL				29309.58	X
	Add GST on “X-A” (multiplying factor 0.2127)				5811.07	
	TOTAL				35120.65	Y
	Add 15% CPOH on “Y-A”				4969.74	
	TOTAL				40090.39	Z
	Add Cess @ 1% on “Z-A”				381.01	
	Cost of 5 metre				40471.40	
	Cost per metre				8094.28	
	Say				8094.30	

18.71.6 350 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	350 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 135.70 Kg					
	Weight of 5 m pipes 135.70x5 = 678.50 Kg					
7717	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 350mm dia	metre	5.00	6750.00	33750.00	
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.79	361.65	2455.60	A
	TOTAL				36205.60	W
	Add 1 % Water charges on “W-A”				337.50	
	TOTAL				36543.10	X
	Add GST on “X-A” (multiplying factor 0.2127)				7250.41	
	TOTAL				43793.51	Y
	Add 15% CPOH on “Y-A”				6200.69	
	TOTAL				49994.20	Z
	Add Cess @ 1% on “Z-A”				475.39	
	Cost of 5 metre				50469.59	
	Cost per metre				10093.92	
	Say				10093.90	

18.71.7 400 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	400 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 166.80 Kg					
	Weight of 5 m pipes 166.80x5 = 834.00 Kg					
7718	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 400mm dia	metre	5.00	8810.00	44050.00	
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	8.34	361.65	3016.16	A
	TOTAL				47066.16	W
	Add 1 % Water charges on “W-A”				440.50	
	TOTAL				47506.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				9463.13	
	TOTAL				56969.79	Y
	Add 15% CPOH on “Y-A”				8093.04	
	TOTAL				65062.83	Z
	Add Cess @ 1% on “Z-A”				620.47	
	Cost of 5 metre				65683.30	
	Cost per metre				13136.66	
	Say				13136.65	

18.71.8 450 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	450 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 201.60 Kg					
	Weight of 5 m pipes 201.60x5 = 1008.00 Kg					
7719	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 450mm dia	metre	5.00	11275.00	56375.00	
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.08	361.65	3645.43	A
	TOTAL				60020.43	W
	Add 1 % Water charges on “W-A”				563.75	
	TOTAL				60584.18	X
	Add GST on “X-A” (multiplying factor 0.2127)				12110.87	
	TOTAL				72695.05	Y
	Add 15% CPOH on “Y-A”				10357.44	
	TOTAL				83052.49	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z-A"				794.07	
	Cost of 5 metre				83846.56	
	Cost per metre				16769.31	
	Say				16769.30	

18.71.9 500 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	500 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 234.80 Kg					
	Weight of 5 m pipes 234.80x5 = 1174.00 Kg					
7720	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 500mm dia	metre	5.00	14600.00	73000.00	
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	11.74	361.65	4245.77	A
	TOTAL				77245.77	W
	Add 1 % Water charges on "W-A"				730.00	
	TOTAL				77975.77	X
	Add GST on "X-A" (multiplying factor 0.2127)				15682.37	
	TOTAL				93658.14	Y
	Add 15% CPOH on "Y-A"				13411.86	
	TOTAL				107070.00	Z
	Add Cess @ 1% on "Z-A"				1028.24	
	Cost of 5 metre				108098.24	
	Cost per metre				21619.65	
	Say				21619.65	

18.71.10 600 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	600 mm dia. cast iron pipes double flanged					
	Weight of 1 m pipes = 315.30 Kg					
	Weight of 5 m pipes 315.30x5 = 1576.50 Kg					
7721	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 600mm dia	metre	5.00	18500.00	92500.00	
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	15.77	361.65	5703.22	A
	TOTAL				98203.22	W
	Add 1 % Water charges on "W-A"				925.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				99128.22	X
	Add GST on "X-A" (multiplying factor 0.2127)				19871.50	
	TOTAL				118999.72	Y
	Add 15% CPOH on "Y-A"				16994.48	
	TOTAL				135994.20	Z
	Add Cess @ 1% on "Z-A"				1302.91	
	Cost of 5 metre				137297.11	
	Cost per metre				27459.42	
	Say				27459.40	

18.72 Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329:

18.72.1 100 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	100mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 15.39 Kg					
	Weight of 10m pipes 15.39x10 = 153.90 Kg					
7722	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 100mm dia	metre	10.00	845.00	8450.00	
2343	Carriage of cast iron pipes 100 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.54	361.65	556.94	A
	TOTAL				9006.94	W
	Add 1 % Water charges on "W-A"				84.50	
	TOTAL				9091.44	X
	Add GST on "X-A" (multiplying factor 0.2127)				1815.29	
	TOTAL				10906.73	Y
	Add 15% CPOH on "Y-A"				1552.47	
	TOTAL				12459.20	Z
	Add Cess @ 1% on "Z-A"				119.02	
	Cost of 10 metre				12578.22	
	Cost per metre				1257.82	
	Say				1257.80	

18.72.2 150 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	150 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 22.750 Kg					
	Weight of 10m pipes 22.750x10 = 227.50 Kg					
7723	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 150mm dia	metre	10.00	1200.00	12000.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.10	0.00	0.00	
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.28	361.65	824.56	A
	TOTAL				12824.56	W
	Add 1 % Water charges on “W-A”				120.00	
	TOTAL				12944.56	X
	Add GST on “X-A” (multiplying factor 0.2127)				2577.92	
	TOTAL				15522.48	Y
	Add 15% CPOH on “Y-A”				2204.69	
	TOTAL				17727.17	Z
	Add Cess @ 1% on “Z-A”				169.03	
	Cost of 10 metre				17896.20	
	Cost per metre				1789.62	
	Say				1789.60	

18.72.3 200 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	200 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 30.090 Kg					
	Weight of 10m pipes 30.090x10 = 300.90 Kg					
7724	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 200mm dia	metre	10.00	1560.00	15600.00	
2345	Carriage of cast iron pipes 200 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.01	361.65	1088.57	A
	TOTAL				16688.57	W
	Add 1 % Water charges on “W-A”				156.00	
	TOTAL				16844.57	X
	Add GST on “X-A” (multiplying factor 0.2127)				3351.30	
	TOTAL				20195.87	Y
	Add 15% CPOH on “Y-A”				2866.10	
	TOTAL				23061.97	Z
	Add Cess @ 1% on “Z-A”				219.73	
	Cost of 10 metre				23281.70	
	Cost per metre				2328.17	
	Say				2328.15	

18.72.4 250 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	250mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 39.310 Kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Weight of 10m pipes 39.310x10 = 393.10 Kg					
7725	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 250mm dia	metre	10.00	1925.00	19250.00	
2346	Carriage of cast iron pipes 250 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.93	361.65	1421.28	A
	TOTAL				20671.28	W
	Add 1 % Water charges on “W-A”				192.50	
	TOTAL				20863.78	X
	Add GST on “X-A” (multiplying factor 0.2127)				4135.42	
	TOTAL				24999.20	Y
	Add 15% CPOH on “Y-A”				3536.69	
	TOTAL				28535.89	Z
	Add Cess @ 1% on “Z-A”				271.15	
	Cost of 10 metre				28807.04	
	Cost per metre				2880.70	
	Say				2880.70	

18.72.5 300 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	300mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 48.400 Kg					
	Weight of 10m pipes 48.400x10 = 484.00 Kg					
7726	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 300mm dia	metre	10.00	2350.00	23500.00	
2347	Carriage of cast iron pipes 300 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.84	361.65	1750.39	A
	TOTAL				25250.39	W
	Add 1 % Water charges on “W-A”				235.00	
	TOTAL				25485.39	X
	Add GST on “X-A” (multiplying factor 0.2127)				5048.43	
	TOTAL				30533.82	Y
	Add 15% CPOH on “Y-A”				4317.51	
	TOTAL				34851.33	Z
	Add Cess @ 1% on “Z-A”				331.01	
	Cost of 10 metre				35182.34	
	Cost per metre				3518.23	
	Say				3518.25	

18.72.6 350 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	350mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 66.020 Kg					
	Weight of 10m pipes 66.020x10 = 660.20 Kg					
7727	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 350mm dia	metre	10.00	2775.00	27750.00	
2348	Carriage of cast iron pipes 350 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.60	361.65	2386.89	A
	TOTAL				30136.89	W
	Add 1 % Water charges on “W-A”				277.50	
	TOTAL				30414.39	X
	Add GST on “X-A” (multiplying factor 0.2127)				5961.45	
	TOTAL				36375.84	Y
	Add 15% CPOH on “Y-A”				5098.34	
	TOTAL				41474.18	Z
	Add Cess @ 1% on “Z-A”				390.87	
	Cost of 10 metre				41865.05	
	Cost per metre				4186.51	
	Say				4186.50	

18.72.7 400 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	400mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 78.280 Kg					
	Weight of 10m pipes 78.280x10 = 782.80 Kg					
7728	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 400mm dia	metre	10.00	3375.00	33750.00	
2349	Carriage of cast iron pipes 400 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	7.83	361.65	2831.72	A
	TOTAL				36581.72	W
	Add 1 % Water charges on “W-A”				337.50	
	TOTAL				36919.22	X
	Add GST on “X-A” (multiplying factor 0.2127)				7250.41	
	TOTAL				44169.63	Y
	Add 15% CPOH on “Y-A”				6200.69	
	TOTAL				50370.32	Z
	Add Cess @ 1% on “Z-A”				475.39	
	Cost of 10 metre				50845.71	
	Cost per metre				5084.57	
	Say				5084.55	

18.72.8 450 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	450mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 91.410 Kg					
	Weight of 10m pipes 91.410x10 = 914.10 Kg					
7729	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 450mm dia	metre	10.00	4100.00	41000.00	
2350	Carriage of cast iron pipes 450 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	9.14	361.65	3305.48	A
	TOTAL				44305.48	W
	Add 1 % Water charges on “W-A”				410.00	
	TOTAL				44715.48	X
	Add GST on “X-A” (multiplying factor 0.2127)				8807.91	
	TOTAL				53523.39	Y
	Add 15% CPOH on “Y-A”				7532.69	
	TOTAL				61056.08	Z
	Add Cess @ 1% on “Z-A”				577.51	
	Cost of 10 metre				61633.59	
	Cost per metre				6163.36	
	Say				6163.35	

18.72.9 500 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	500mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 106.640 Kg					
	Weight of 10m pipes 106.640x10 = 1066.40 Kg					
7730	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 500mm dia	metre	10.00	4500.00	45000.00	
2351	Carriage of cast iron pipes 500 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.66	361.65	3855.19	A
	TOTAL				48855.19	W
	Add 1 % Water charges on “W-A”				450.00	
	TOTAL				49305.19	X
	Add GST on “X-A” (multiplying factor 0.2127)				9667.22	
	TOTAL				58972.41	Y
	Add 15% CPOH on “Y-A”				8267.58	
	TOTAL				67239.99	Z
	Add Cess @ 1% on “Z-A”				633.85	
	Cost of 10 metre				67873.84	
	Cost per metre				6787.38	
	Say				6787.40	

18.72.10 600 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	600mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 138.61 Kg					
	Weight of 10m pipes 138.61x10 = 1386.10 Kg					
7731	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 600mm dia	metre	10.00	5950.00	59500.00	
2352	Carriage of cast iron pipes 600 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	13.86	361.65	5012.47	A
	TOTAL				64512.47	W
	Add 1 % Water charges on “W-A”				595.00	
	TOTAL				65107.47	X
	Add GST on “X-A” (multiplying factor 0.2127)				12782.21	
	TOTAL				77889.68	Y
	Add 15% CPOH on “Y-A”				10931.58	
	TOTAL				88821.26	Z
	Add Cess @ 1% on “Z-A”				838.09	
	Cost of 10 metre				89659.35	
	Cost per metre				8965.94	
	Say				8965.95	

18.72.11 700 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	700mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 188.92 Kg					
	Weight of 10m pipes 188.92x10 = 1889.20 Kg					
7732	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 700mm dia	metre	10.00	7650.00	76500.00	
2353	Carriage of cast iron pipes 700 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	18.89	361.65	6831.57	A
	TOTAL				83331.57	W
	Add 1 % Water charges on “W-A”				765.00	
	TOTAL				84096.57	X
	Add GST on “X-A” (multiplying factor 0.2127)				16434.27	
	TOTAL				100530.84	Y
	Add 15% CPOH on “Y-A”				14054.89	
	TOTAL				114585.73	Z
	Add Cess @ 1% on “Z-A”				1077.54	
	Cost of 10 metre				115663.27	
	Cost per metre				11566.33	
	Say				11566.35	

18.72.12 800 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	800mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 243.51 Kg					
	Weight of 10m pipes 243.51x10 = 2435.10 Kg					
7733	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 800mm dia	metre	10.00	9650.00	96500.00	
2355	Carriage of cast iron pipes 800 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	24.35	361.65	8806.18	A
	TOTAL				105306.18	W
	Add 1 % Water charges on “W-A”				965.00	
	TOTAL				106271.18	X
	Add GST on “X-A” (multiplying factor 0.2127)				20730.81	
	TOTAL				127001.99	Y
	Add 15% CPOH on “Y-A”				17729.37	
	TOTAL				144731.36	Z
	Add Cess @ 1% on “Z-A”				1359.25	
	Cost of 10 metre				146090.61	
	Cost per metre				14609.06	
	Say				14609.05	

18.72.13 900 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	900 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 282.74 Kg					
	Weight of 10m pipes 282.74x10 = 2827.40 Kg					
7734	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 900mm dia	metre	10.00	12450.00	124500.00	
2356	Carriage of cast iron pipes 900 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	28.27	361.65	10223.85	A
	TOTAL				134723.85	W
	Add 1 % Water charges on “W-A”				1245.00	
	TOTAL				135968.85	X
	Add GST on “X-A” (multiplying factor 0.2127)				26745.96	
	TOTAL				162714.81	Y
	Add 15% CPOH on “Y-A”				22873.64	
	TOTAL				185588.45	Z
	Add Cess @ 1% on “Z-A”				1753.65	
	Cost of 10 metre				187342.10	
	Cost per metre				18734.21	
	Say				18734.20	

18.72.14 1000 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	1000 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 348.23 Kg					
	Weight of 10m pipes 348.23x10 = 3482.30 Kg					
7735	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 1000mm dia	metre	10.00	13100.00	131000.00	
2357	Carriage of cast iron pipes 1000 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	34.82	361.65	12592.65	A
	TOTAL				143592.65	W
	Add 1 % Water charges on “W-A”				1310.00	
	TOTAL				144902.65	X
	Add GST on “X-A” (multiplying factor 0.2127)				28142.34	
	TOTAL				173044.99	Y
	Add 15% CPOH on “Y-A”				24067.85	
	TOTAL				197112.84	Z
	Add Cess @ 1% on “Z-A”				1845.20	
	Cost of 10 metre				198958.04	
	Cost per metre				19895.80	
	Say				19895.80	

18.72.15 100 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	100mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 17.76 Kg					
	Weight of 10m pipes 17.76x10 = 177.60 Kg					
7651	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 100mm dia	metre	10.00	900.00	9000.00	
2343	Carriage of cast iron pipes 100 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.776	361.65	642.29	A
	TOTAL				9642.29	W
	Add 1 % Water charges on “W-A”				90.00	
	TOTAL				9732.29	X
	Add GST on “X-A” (multiplying factor 0.2127)				1933.44	
	TOTAL				11665.73	Y
	Add 15% CPOH on “Y-A”				1653.52	
	TOTAL				13319.25	Z
	Add Cess @ 1% on “Z-A”				126.77	
	Cost of 10 metre				13446.02	
	Cost per metre				1344.60	
	Say				1344.60	

18.72.16 150 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	150 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 26.27 Kg					
	Weight of 10m pipes 26.27x10 = 262.70 Kg					
7652	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 150mm dia	metre	10.00	1225.00	12250.00	
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.627	361.65	950.05	A
	TOTAL				13200.05	W
	Add 1 % Water charges on “W-A”				122.50	
	TOTAL				13322.55	X
	Add GST on “X-A” (multiplying factor 0.2127)				2631.63	
	TOTAL				15954.18	Y
	Add 15% CPOH on “Y-A”				2250.62	
	TOTAL				18204.80	Z
	Add Cess @ 1% on “Z-A”				172.55	
	Cost of 10 metre				18377.35	
	Cost per metre				1837.74	
	Say				1837.75	

18.72.17 200 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	200 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 36.15 Kg					
	Weight of 10m pipes 36.15x10 = 361.50 Kg					
7653	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 200mm dia	metre	10.00	1650.00	16500.00	
2345	Carriage of cast iron pipes 200 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	3.615	361.65	1307.36	A
	TOTAL				17807.36	W
	Add 1 % Water charges on “W-A”				165.00	
	TOTAL				17972.36	X
	Add GST on “X-A” (multiplying factor 0.2127)				3544.65	
	TOTAL				21517.01	Y
	Add 15% CPOH on “Y-A”				3031.45	
	TOTAL				24548.46	Z
	Add Cess @ 1% on “Z-A”				232.41	
	Cost of 10 metre				24780.87	
	Cost per metre				2478.09	
	Say				2478.10	

18.72.18 250 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	250mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 48.00 Kg					
	Weight of 10m pipes 48.00x10 = 480.00 Kg					
7654	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 250mm dia	metre	10.00	2350.00	23500.00	
2346	Carriage of cast iron pipes 250 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	4.80	361.65	1735.92	A
	TOTAL				25235.92	W
	Add 1 % Water charges on “W-A”				235.00	
	TOTAL				25470.92	X
	Add GST on “X-A” (multiplying factor 0.2127)				5048.43	
	TOTAL				30519.35	Y
	Add 15% CPOH on “Y-A”				4317.51	
	TOTAL				34836.86	Z
	Add Cess @ 1% on “Z-A”				331.01	
	Cost of 10 metre				35167.87	
	Cost per metre				3516.79	
	Say				3516.80	

18.72.19 300 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	300mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 60.490 Kg					
	Weight of 10m pipes 60.490x10 = 604.90 Kg					
7655	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 300mm dia	metre	10.00	2900.00	29000.00	
2347	Carriage of cast iron pipes 300 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.049	361.65	2187.62	A
	TOTAL				31187.62	W
	Add 1 % Water charges on “W-A”				290.00	
	TOTAL				31477.62	X
	Add GST on “X-A” (multiplying factor 0.2127)				6229.98	
	TOTAL				37707.60	Y
	Add 15% CPOH on “Y-A”				5328.00	
	TOTAL				43035.60	Z
	Add Cess @ 1% on “Z-A”				408.48	
	Cost of 10 metre				43444.08	
	Cost per metre				4344.41	
	Say				4344.40	

18.72.20 350 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	350mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 79.730 Kg					
	Weight of 10m pipes 79.730x10 = 797.30 Kg					
7656	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 350mm dia	metre	10.00	3600.00	36000.00	
2348	Carriage of cast iron pipes 350 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.973	361.65	2883.44	A
	TOTAL				38883.44	W
	Add 1 % Water charges on “W-A”				360.00	
	TOTAL				39243.44	X
	Add GST on “X-A” (multiplying factor 0.2127)				7733.77	
	TOTAL				46977.21	Y
	Add 15% CPOH on “Y-A”				6614.07	
	TOTAL				53591.28	Z
	Add Cess @ 1% on “Z-A”				507.08	
	Cost of 10 metre				54098.36	
	Cost per metre				5409.84	
	Say				5409.85	

18.72.21 400 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	400mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 94.800 Kg					
	Weight of 10m pipes 94.800x10 = 948.00 Kg					
7657	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 400mm dia	metre	10.00	4570.00	45700.00	
2349	Carriage of cast iron pipes 400 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	9.48	361.65	3428.44	A
	TOTAL				49128.44	W
	Add 1 % Water charges on “W-A”				457.00	
	TOTAL				49585.44	X
	Add GST on “X-A” (multiplying factor 0.2127)				9817.59	
	TOTAL				59403.03	Y
	Add 15% CPOH on “Y-A”				8396.19	
	TOTAL				67799.22	Z
	Add Cess @ 1% on “Z-A”				643.71	
	Cost of 10 metre				68442.93	
	Cost per metre				6844.29	
	Say				6844.30	

18.72.22 450 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	450mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 110.970 Kg					
	Weight of 10m pipes 110.970x10 = 1109.70 Kg					
7658	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 450mm dia	metre	10.00	5325.00	53250.00	
2350	Carriage of cast iron pipes 450 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	11.097	361.65	4013.23	A
	TOTAL				57263.23	W
	Add 1 % Water charges on “W-A”				532.50	
	TOTAL				57795.73	X
	Add GST on “X-A” (multiplying factor 0.2127)				11439.54	
	TOTAL				69235.27	Y
	Add 15% CPOH on “Y-A”				9783.31	
	TOTAL				79018.58	Z
	Add Cess @ 1% on “Z-A”				750.05	
	Cost of 10 metre				79768.63	
	Cost per metre				7976.86	
	Say				7976.85	

18.72.23 500 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	500mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 129.480 Kg					
	Weight of 10m pipes 129.480x10 = 1294.80 Kg					
7659	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 500mm dia	metre	10.00	6475.00	64750.00	
2351	Carriage of cast iron pipes 500 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	12.948	361.65	4682.64	A
	TOTAL				69432.64	W
	Add 1 % Water charges on “W-A”				647.50	
	TOTAL				70080.14	X
	Add GST on “X-A” (multiplying factor 0.2127)				13910.05	
	TOTAL				83990.19	Y
	Add 15% CPOH on “Y-A”				11896.13	
	TOTAL				95886.32	Z
	Add Cess @ 1% on “Z-A”				912.04	
	Cost of 10 metre				96798.36	
	Cost per metre				9679.84	
	Say				9679.85	

18.72.24 600 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	600mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 168.680 Kg					
	Weight of 10m pipes 168.680x10 = 1686.80 Kg					
7660	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 600mm dia	metre	10.00	8700.00	87000.00	
2352	Carriage of cast iron pipes 600 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	16.868	361.65	6100.31	A
	TOTAL				93100.31	W
	Add 1 % Water charges on “W-A”				870.00	
	TOTAL				93970.31	X
	Add GST on “X-A” (multiplying factor 0.2127)				18689.95	
	TOTAL				112660.26	Y
	Add 15% CPOH on “Y-A”				15983.99	
	TOTAL				128644.25	Z
	Add Cess @ 1% on “Z-A”				1225.44	
	Cost of 10 metre				129869.69	
	Cost per metre				12986.97	
	Say				12986.95	

18.72.25 700 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	700mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 217.540 Kg					
	Weight of 10m pipes 217.540x10 = 2175.40 Kg					
7661	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 700mm dia	metre	10.00	11700.00	117000.00	
2353	Carriage of cast iron pipes 700 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	21.754	361.65	7867.33	A
	TOTAL				124867.33	W
	Add 1 % Water charges on “W-A”				1170.00	
	TOTAL				126037.33	X
	Add GST on “X-A” (multiplying factor 0.2127)				25134.76	
	TOTAL				151172.09	Y
	Add 15% CPOH on “Y-A”				21495.71	
	TOTAL				172667.80	Z
	Add Cess @ 1% on “Z-A”				1648.00	
	Cost of 10 metre				174315.80	
	Cost per metre				17431.58	
	Say				17431.60	

18.72.26 750 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	750mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 242.600 Kg					
	Weight of 10m pipes 242.600x10 = 2426.00 Kg					
7662	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 750mm dia	metre	10.00	12435.00	124350.00	
2354	Carriage of cast iron pipes 750 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	24.26	361.65	8773.63	A
	TOTAL				133123.63	W
	Add 1 % Water charges on “W-A”				1243.50	
	TOTAL				134367.13	X
	Add GST on “X-A” (multiplying factor 0.2127)				26713.74	
	TOTAL				161080.87	Y
	Add 15% CPOH on “Y-A”				22846.09	
	TOTAL				183926.96	Z
	Add Cess @ 1% on “Z-A”				1751.53	
	Cost of 10 metre				185678.49	
	Cost per metre				18567.85	
	Say				18567.85	

18.72.27 800 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	800 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 267.100 Kg					
	Weight of 10m pipes 267.100x10 = 2671.00 Kg					
7663	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 800mm dia	metre	10.00	12600.00	126000.00	
2355	Carriage of cast iron pipes 800 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	26.71	361.65	9659.67	A
	TOTAL				135659.67	W
	Add 1 % Water charges on “W-A”				1260.00	
	TOTAL				136919.67	X
	Add GST on “X-A” (multiplying factor 0.2127)				27068.20	
	TOTAL				163987.87	Y
	Add 15% CPOH on “Y-A”				23149.23	
	TOTAL				187137.10	Z
	Add Cess @ 1% on “Z-A”				1774.77	
	Cost of 10 metre				188911.87	
	Cost per metre				18891.19	
	Say				18891.20	

18.72.28 900 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	900 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 321.290 Kg					
	Weight of 10m pipes 321.290x10 = 3212.90 Kg					
7664	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 900mm dia	metre	10.00	15465.00	154650.00	
2356	Carriage of cast iron pipes 900 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	32.129	361.65	11619.45	A
	TOTAL				166269.45	W
	Add 1 % Water charges on “W-A”				1546.50	
	TOTAL				167815.95	X
	Add GST on “X-A” (multiplying factor 0.2127)				33223.00	
	TOTAL				201038.95	Y
	Add 15% CPOH on “Y-A”				28412.93	
	TOTAL				229451.88	Z
	Add Cess @ 1% on “Z-A”				2178.32	
	Cost of 10 metre				231630.20	
	Cost per metre				23163.02	
	Say				23163.00	

18.72.29 1000 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	1000 mm dia. cast iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 380.190 Kg					
	Weight of 10m pipes 380.190x10 = 3801.90 Kg					
7665	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 1000mm dia	metre	10.00	16700.00	167000.00	
2357	Carriage of cast iron pipes 1000 mm dia	100 metre	0.10	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	38.019	361.65	13749.57	A
	TOTAL				180749.57	W
	Add 1 % Water charges on “W-A”				1670.00	
	TOTAL				182419.57	X
	Add GST on “X-A” (multiplying factor 0.2127)				35876.11	
	TOTAL				218295.68	Y
	Add 15% CPOH on “Y-A”				30681.92	
	TOTAL				248977.60	Z
	Add Cess @ 1% on “Z-A”				2352.28	
	Cost of 10 metre				251329.88	
	Cost per metre				25132.99	
	Say				25133.00	

18.72A Providing, laying, jointing and testing S&S Centrifugally Cast Ductile Iron double chamber Class K-9 pressure pipes conforming to IS 8329:2000 with restrained joints (bolt less), all complete.

18.72A.1 100 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	100 mm nominal dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 18.65 Kg					
	Weight of 10 m pipes = 186.5 Kg					
7591	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 100 mm nominal dia pipe	metre	10.00	1256.00	12560.00	
2319	Carriage of DI Pipes K9 of 100 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7606	Rubber Gasket of EPDM quality for 100 mm nominal dia DI pipe	each	2.00	29.00	58.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.06	897.00	53.82	
0117	Assistant Fitter or 2nd class Fitter	day	0.12	816.00	97.92	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	5.40	2.27	12.26	
	TOTAL				13150.00	W
	Add 1 % Water charges on “W”				131.50	
	TOTAL				13281.50	X
	Add GST on “X” (multiplying factor 0.2127)				2824.98	
	TOTAL				16106.48	Y
	Add 15% CPOH on “Y”				2415.97	
	TOTAL				18522.45	Z
	Add Cess @ 1% on “Z”				185.22	
	Cost of 10 metre				18707.67	
	Cost of 1.00 metre				1870.77	
	Say				1870.75	

18.72A.2 150 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	150 mm nominal dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 27.58 Kg					
	Weight of 10 m pipes = 275.80 Kg					
7592	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 150 mm nominal dia pipe	metre	10.00	1748.00	17480.00	
2321	Carriage of DI Pipes K9 of 150 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7607	Rubber Gasket of EPDM quality for 150 mm nominal dia DI pipe	each	2.00	33.00	66.00	
	Labour for laying and jointing					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0117	Assistant Fitter or 2nd class Fitter	day	0.15	816.00	122.40	
0114	Beldar	day	0.62	736.00	456.32	
9999	Sundries	L.S.	6.75	2.27	15.32	
	TOTAL				18211.80	W
	Add 1 % Water charges on “W”				182.12	
	TOTAL				18393.92	X
	Add GST on “X” (multiplying factor 0.2127)				3912.39	
	TOTAL				22306.31	Y
	Add 15% CPOH on “Y”				3345.95	
	TOTAL				25652.26	Z
	Add Cess @ 1% on “Z”				256.52	
	Cost of 10 metre				25908.78	
	Cost of 1.00 metre				2590.88	
	Say				2590.90	

18.72A.3 200 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	200 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 37.96 Kg					
	Weight of 10 m pipes = 379.6 Kg					
7593	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 200 mm nominal dia pipe	metre	10.00	2197.00	21970.00	
2322	Carriage of DI Pipes K9 of 200 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7608	Rubber Gasket of EPDM quality for 200 mm nominal dia pipe	each	2.00	60.00	120.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.09	897.00	80.73	
0117	Assistant Fitter or 2nd class Fitter	day	0.19	816.00	155.04	
0114	Beldar	day	0.78	736.00	574.08	
9999	Sundries	L.S.	8.43	2.27	19.14	
	TOTAL				22918.99	W
	Add 1 % Water charges on “W”				229.19	
	TOTAL				23148.18	X
	Add GST on “X” (multiplying factor 0.2127)				4923.62	
	TOTAL				28071.80	Y
	Add 15% CPOH on “Y”				4210.77	
	TOTAL				32282.57	Z
	Add Cess @ 1% on “Z”				322.83	
	Cost of 10 metre				32605.40	
	Cost of 1.00 metre				3260.54	
	Say				3260.55	

18.72A.4 250 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	250 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 50.40 Kg					
	Weight of 10 m pipes=504.00 Kg					
7594	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 250 mm nominal dia pipe	metre	10.00	2945.00	29450.00	
2323	Carriage of DI Pipes K9 of 250 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7609	Rubber Gasket of EPDM quality for 250 mm nominal dia pipe	each	2.00	70.00	140.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.12	897.00	107.64	
0117	Assistant Fitter or 2nd class Fitter	day	0.23	816.00	187.68	
0114	Beldar	day	0.98	736.00	721.28	
9999	Sundries	L.S.	10.54	2.27	23.93	
	TOTAL				30630.53	W
	Add 1 % Water charges on “W”				306.31	
	TOTAL				30936.84	X
	Add GST on “X” (multiplying factor 0.2127)				6580.27	
	TOTAL				37517.11	Y
	Add 15% CPOH on “Y”				5627.57	
	TOTAL				43144.68	Z
	Add Cess @ 1% on “Z”				431.45	
	Cost of 10 metre				43576.13	
	Cost of 1.00 metre				4357.61	
	Say				4357.60	

18.72A.5 300 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	300 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 63.51 Kg					
	Weight of 10 m pipes=635.10 Kg					
7595	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 300 mm nominal dia pipe	metre	10.00	3684.00	36840.00	
2324	Carriage of DI Pipes K9 of 300 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7610	Rubber Gasket of EPDM quality for 300 mm nominal dia pipe	each	2.00	100.00	200.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.14	897.00	125.58	
0117	Assistant Fitter or 2nd class Fitter	day	0.29	816.00	236.64	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	1.22	736.00	897.92	
9999	Sundries	L.S.	13.18	2.27	29.92	
	TOTAL				38330.06	W
	Add 1 % Water charges on “W”				383.30	
	TOTAL				38713.36	X
	Add GST on “X” (multiplying factor 0.2127)				8234.33	
	TOTAL				46947.69	Y
	Add 15% CPOH on “Y”				7042.15	
	TOTAL				53989.84	Z
	Add Cess @ 1% on “Z”				539.90	
	Cost of 10 metre				54529.74	
	Cost of 1.00 metre				5452.97	
	Say				5452.95	

18.72A.6 350 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	Details of cost for 10 metre					
	MATERIAL					
	350 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 83.72 Kg					
	Weight of 10 m pipes=837.2 Kg					
7596	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 350 mm nominal dia pipe	metre	10.00	4480.00	44800.00	
2325	Carriage of DI Pipes K9 of 350 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7611	Rubber Gasket of EPDM quality for 350 mm nominal dia pipe	each	2.00	116.00	232.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.18	897.00	161.46	
0117	Assistant Fitter or 2nd class Fitter	day	0.37	816.00	301.92	
0114	Beldar	day	1.52	736.00	1118.72	
9999	Sundries	L.S.	16.48	2.27	37.41	
	TOTAL				46651.51	W
	Add 1 % Water charges on “W”				466.52	
	TOTAL				47118.03	X
	Add GST on “X” (multiplying factor 0.2127)				10022.00	
	TOTAL				57140.03	Y
	Add 15% CPOH on “Y”				8571.00	
	TOTAL				65711.03	Z
	Add Cess @ 1% on “Z”				657.11	
	Cost of 10 metre				66368.14	
	Cost of 1.00 metre				6636.81	
	Say				6636.80	

18.72A.7 400 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	400 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 99.54 Kg					
	Weight of 10 m pipes = 995.4 Kg					
7597	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 400 mm nominal dia pipe	metre	10.00	5576.00	55760.00	
2326	Carriage of DI Pipes K9 of 400 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7612	Rubber Gasket of EPDM quality for 400 mm nominal dia pipe	each	2.00	210.00	420.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0117	Assistant Fitter or 2nd class Fitter	day	0.46	816.00	375.36	
0114	Beldar	day	1.90	736.00	1398.40	
9999	Sundries	L.S.	20.60	2.27	46.76	
	TOTAL				58197.86	W
	Add 1 % Water charges on “W”				581.98	
	TOTAL				58779.84	X
	Add GST on “X” (multiplying factor 0.2127)				12502.47	
	TOTAL				71282.31	Y
	Add 15% CPOH on “Y”				10692.35	
	TOTAL				81974.66	Z
	Add Cess @ 1% on “Z”				819.75	
	Cost of 10 metre				82794.41	
	Cost of 1.00 metre				8279.44	
	Say				8279.45	

18.72A.8 450 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	450 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 116.52 Kg					
	Weight of 10 m pipes=1165.2 Kg					
7598	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 450 mm nominal dia pipe	metre	10.00	6629.00	66290.00	
2327	Carriage of DI Pipes K9 of 450 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7613	Rubber Gasket of EPDM quality for 450 mm nominal dia pipe	each	2.00	250.00	500.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.28	897.00	251.16	
0117	Assistant Fitter or 2nd class Fitter	day	0.57	816.00	465.12	
0114	Beldar	day	2.38	736.00	1751.68	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	25.75	2.27	58.45	
	TOTAL				69316.41	W
	Add 1 % Water charges on “W”				693.16	
	TOTAL				70009.57	X
	Add GST on “X” (multiplying factor 0.2127)				14891.04	
	TOTAL				84900.61	Y
	Add 15% CPOH on “Y”				12735.09	
	TOTAL				97635.70	Z
	Add Cess @ 1% on “Z”				976.36	
	Cost of 10 metre				98612.06	
	Cost of 1.00 metre				9861.21	
	Say				9861.20	

18.72A.9 500 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	500 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 135.95 Kg					
	Weight of 10 m pipes=1359.5 Kg					
7599	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 500 mm nominal dia pipe	metre	10.00	7803.00	78030.00	
2328	Carriage of DI Pipes K9 of 500 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7614	Rubber Gasket of EPDM quality for 500 mm nominal dia pipe	each	2.00	270.00	540.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.35	897.00	313.95	
0117	Assistant Fitter or 2nd class Fitter	day	0.72	816.00	587.52	
0114	Beldar	day	2.98	736.00	2193.28	
9999	Sundries	L.S.	32.18	2.27	73.05	
	TOTAL				81737.80	W
	Add 1 % Water charges on “W”				817.38	
	TOTAL				82555.18	X
	Add GST on “X” (multiplying factor 0.2127)				17559.49	
	TOTAL				100114.67	Y
	Add 15% CPOH on “Y”				15017.20	
	TOTAL				115131.87	Z
	Add Cess @ 1% on “Z”				1151.32	
	Cost of 10 metre				116283.19	
	Cost of 1.00 metre				11628.32	
	Say				11628.30	

18.72A.10 600 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	600 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 177.11 Kg					
	Weight of 10 m pipes=1771.1 Kg					
7600	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 600 mm nominal dia pipe	metre	10.00	10220.00	102200.00	
2329	Carriage of DI Pipes K9 of 600 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7615	Rubber Gasket of EPDM quality for 600 mm nominal dia pipe	each	2.00	356.00	712.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.44	897.00	394.68	
0117	Assistant Fitter or 2nd class Fitter	day	0.89	816.00	726.24	
0114	Beldar	day	3.72	736.00	2737.92	
9999	Sundries	L.S.	40.23	2.27	91.32	
	TOTAL				106862.16	W
	Add 1 % Water charges on “W”				1068.62	
	TOTAL				107930.78	X
	Add GST on “X” (multiplying factor 0.2127)				22956.88	
	TOTAL				130887.66	Y
	Add 15% CPOH on “Y”				19633.15	
	TOTAL				150520.81	Z
	Add Cess @ 1% on “Z”				1505.21	
	Cost of 10 metre				152026.02	
	Cost of 1.00 metre				15202.60	
	Say				15202.60	

18.72A.11 700 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	700 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 228.42 Kg					
	Weight of 10 m pipes=2284.2 Kg					
7601	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 700 mm nominal dia pipe	metre	10.00	12911.00	129110.00	
2353	Carriage of DI Pipes K9 of 700 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7616	Rubber Gasket of EPDM quality for 700 mm nominal dia pipe	each	2.00	510.00	1020.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.55	897.00	493.35	
0117	Assistant Fitter or 2nd class Fitter	day	1.12	816.00	913.92	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	4.66	736.00	3429.76	
9999	Sundries	L.S.	50.29	2.27	114.16	
	TOTAL				135081.19	W
	Add 1 % Water charges on “W”				1350.81	
	TOTAL				136432.00	X
	Add GST on “X” (multiplying factor 0.2127)				29019.09	
	TOTAL				165451.09	Y
	Add 15% CPOH on “Y”				24817.66	
	TOTAL				190268.75	Z
	Add Cess @ 1% on “Z”				1902.69	
	Cost of 10 metre				192171.44	
	Cost of 1.00 metre				19217.14	
	Say				19217.15	

18.72A.12 750 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	750 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 254.73 Kg					
	Weight of 10 m pipes=2547.3 Kg					
7602	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 750 mm nominal dia pipe	metre	10.00	14463.00	144630.00	
2354	Carriage of DI Pipes K9 of 750 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7617	Rubber Gasket of EPDM quality for 750 mm nominal dia pipe	each	2.00	600.00	1200.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.70	897.00	627.90	
0117	Assistant Fitter or 2nd class Fitter	day	1.40	816.00	1142.40	
0114	Beldar	day	5.82	736.00	4283.52	
9999	Sundries	L.S.	62.86	2.27	142.69	
	TOTAL				152026.51	W
	Add 1 % Water charges on “W”				1520.27	
	TOTAL				153546.78	X
	Add GST on “X” (multiplying factor 0.2127)				32659.40	
	TOTAL				186206.18	Y
	Add 15% CPOH on “Y”				27930.93	
	TOTAL				214137.11	Z
	Add Cess @ 1% on “Z”				2141.37	
	Cost of 10 metre				216278.48	
	Cost of 1.00 metre				21627.85	
	Say				21627.85	

18.72A.13 800 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	800 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 280.46 Kg					
	Weight of 10m pipes=2804.60 Kg					
7603	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 800 mm nominal dia pipe	metre	10.00	15908.00	159080.00	
2355	Carriage of DI Pipes K9 of 800 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7618	Rubber Gasket of EPDM quality for 800 mm nominal dia pipe	each	2.00	705.00	1410.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	0.87	897.00	780.39	
0117	Assistant Fitter or 2nd class Fitter	day	1.75	816.00	1428.00	
0114	Beldar	day	7.27	736.00	5350.72	
9999	Sundries	L.S.	78.58	2.27	178.38	
	TOTAL				168227.49	W
	Add 1 % Water charges on “W”				1682.27	
	TOTAL				169909.76	X
	Add GST on “X” (multiplying factor 0.2127)				36139.81	
	TOTAL				206049.57	Y
	Add 15% CPOH on “Y”				30907.44	
	TOTAL				236957.01	Z
	Add Cess @ 1% on “Z”				2369.57	
	Cost of 10 metre				239326.58	
	Cost of 1.00 metre				23932.66	
	Say				23932.65	

18.72A.14 900 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	900 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 337.35 Kg					
	Weight of 10 m pipes=3373.50 Kg					
7604	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 900 mm nominal dia pipe	metre	10.00	19824.00	198240.00	
2356	Carriage of DI Pipes K9 of 900 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7619	Rubber Gasketof EPDM quality for 900 mm nominal dia pipe	each	2.00	910.00	1820.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	1.09	897.00	977.73	
0117	Assistant Fitter or 2nd class Fitter	day	2.18	816.00	1778.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	9.09	736.00	6690.24	
9999	Sundries	L.S.	98.22	2.27	222.96	
	TOTAL				209729.81	W
	Add 1 % Water charges on “W”				2097.30	
	TOTAL				211827.11	X
	Add GST on “X” (multiplying factor 0.2127)				45055.63	
	TOTAL				256882.74	Y
	Add 15% CPOH on “Y”				38532.41	
	TOTAL				295415.15	Z
	Add Cess @ 1% on “Z”				2954.15	
	Cost of 10 metre				298369.30	
	Cost of 1.00 metre				29836.93	
	Say				29836.95	

18.72A.15 1000 mm nominal dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	1000 mm dia Centrifugally Cast Ductile Iron restrained joint class K9 pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 399.20 Kg					
	Weight of 10 m pipes = 3992.0 Kg					
7605	Centrifugally Cast DI class K9 pipe including double chamber restraining arrangements (bolt less) 1000 mm nominal dia	metre	10.00	23995.00	239950.00	
2357	Carriage of DI Pipes K9 of 1000 mm nominal dia pipe	100 metre	0.10	0.00	0.00	
7620	Rubber Gasket of EPDM quality for 1000 mm nominal dia pipe	each	2.00	1080.00	2160.00	
	Labour for laying and jointing					
0116	Fitter (grade 1)	day	1.36	897.00	1219.92	
0117	Assistant Fitter or 2nd class Fitter	day	2.73	816.00	2227.68	
0114	Beldar	day	11.37	736.00	8368.32	
9999	Sundries	L.S.	122.78	2.27	278.71	
	TOTAL				254204.63	W
	Add 1 % Water charges on “W”				2542.05	
	TOTAL				256746.68	X
	Add GST on “X” (multiplying factor 0.2127)				54610.02	
	TOTAL				311356.70	Y
	Add 15% CPOH on “Y”				46703.51	
	TOTAL				358060.21	Z
	Add Cess @ 1% on “Z”				3580.60	
	Cost of 10 metre				361640.81	
	Cost of 1.00 metre				36164.08	
	Say				36164.10	

18.73 Providing and laying Double Flanged (Screwed/ Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS : 8329:

18.73.1 100 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	100 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 21.700 Kg					
	Weight of 5 m pipes 21.700x5 = 108.50 Kg					
7686	Ductile Iron Pipe Class K-9 flanges and welding 100mm dia	metre	5.00	1225.00	6125.00	
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.09	361.65	394.20	A
	TOTAL				6519.20	W
	Add 1 % Water charges on “W-A”				61.25	
	TOTAL				6580.45	X
	Add GST on “X-A” (multiplying factor 0.2127)				1315.82	
	TOTAL				7896.27	Y
	Add 15% CPOH on “Y-A”				1125.31	
	TOTAL				9021.58	Z
	Add Cess @ 1% on “Z-A”				86.27	
	Cost of 5 metre				9107.85	
	Cost per metre				1821.57	
	Say				1821.55	

18.73.2 150 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	150 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 32.600 Kg					
	Weight of 5 m pipes 32.600x5 = 163.00 Kg					
7687	Ductile Iron Pipe Class K-9 flanges and welding 150 dia	metre	5.00	1750.00	8750.00	
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.63	361.65	589.49	A
	TOTAL				9339.49	W
	Add 1 % Water charges on “W-A”				87.50	
	TOTAL				9426.99	X
	Add GST on “X-A” (multiplying factor 0.2127)				1879.74	
	TOTAL				11306.73	Y
	Add 15% CPOH on “Y-A”				1607.59	
	TOTAL				12914.32	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z-A"				123.25	
	Cost of 5 metre				13037.57	
	Cost per metre				2607.51	
	Say				2607.50	

18.73.3 200 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	200 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 44.200 Kg					
	Weight of 5 m pipes 44.200x5 = 221.00 Kg					
7688	Ductile Iron Pipe Class K-9 flanges and welding 200mm dia	metre	5.00	2250.00	11250.00	
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.21	361.65	799.25	A
	TOTAL				12049.25	W
	Add 1 % Water charges on "W-A"				112.50	
	TOTAL				12161.75	X
	Add GST on "X-A" (multiplying factor 0.2127)				2416.80	
	TOTAL				14578.55	Y
	Add 15% CPOH on "Y-A"				2066.90	
	TOTAL				16645.45	Z
	Add Cess @ 1% on "Z-A"				158.46	
	Cost of 5 metre				16803.91	
	Cost per metre				3360.78	
	Say				3360.80	

18.73.4 250 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	250 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 59.400 Kg					
	Weight of 5 m pipes 59.400x5 = 297.00 Kg					
7689	Ductile Iron Pipe Class K-9 flanges and welding 250mm dia	metre	5.00	3150.00	15750.00	
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.97	361.65	1074.10	A
	TOTAL				16824.10	W
	Add 1 % Water charges on "W-A"				157.50	
	TOTAL				16981.60	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				3383.53	
	TOTAL				20365.13	Y
	Add 15% CPOH on "Y-A"				2893.65	
	TOTAL				23258.78	Z
	Add Cess @ 1% on "Z-A"				221.85	
	Cost of 5 metre				23480.63	
	Cost per metre				4696.13	
	Say				4696.15	

18.73.5 300 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	300 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 76.400 Kg					
	Weight of 5 m pipes 76.400x5 = 382.00 Kg					
7690	Ductile Iron Pipe Class K-9 flanges and welding 300mm dia	metre	5.00	3950.00	19750.00	
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	3.82	361.65	1381.50	A
	TOTAL				21131.50	W
	Add 1 % Water charges on "W-A"				197.50	
	TOTAL				21329.00	X
	Add GST on "X-A" (multiplying factor 0.2127)				4242.83	
	TOTAL				25571.83	Y
	Add 15% CPOH on "Y-A"				3628.55	
	TOTAL				29200.38	Z
	Add Cess @ 1% on "Z-A"				278.19	
	Cost of 5 metre				29478.57	
	Cost per metre				5895.71	
	Say				5895.70	

18.73.6 350 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	350 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 91.400 Kg					
	Weight of 5 m pipes 91.400x5 = 457.00 Kg					
7691	Ductile Iron Pipe Class K-9 flanges and welding 350mm dia	metre	5.00	5075.00	25375.00	
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	4.57	361.65	1652.74	A
	TOTAL				27027.74	W
	Add 1 % Water charges on “W-A”				253.75	
	TOTAL				27281.49	X
	Add GST on “X-A” (multiplying factor 0.2127)				5451.24	
	TOTAL				32732.73	Y
	Add 15% CPOH on “Y-A”				4662.00	
	TOTAL				37394.73	Z
	Add Cess @ 1% on “Z-A”				357.42	
	Cost of 5 metre				37752.15	
	Cost per metre				7550.43	
	Say				7550.45	

18.73.7 400 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	400 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 108.100 Kg					
	Weight of 5 m pipes 108.100x5 = 540.50 Kg					
7692	Ductile Iron Pipe Class K-9 flanges and welding 400mm dia	metre	5.00	6575.00	32875.00	
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	5.40	361.65	1952.91	A
	TOTAL				34827.91	W
	Add 1 % Water charges on “W-A”				328.75	
	TOTAL				35156.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				7062.44	
	TOTAL				42219.10	Y
	Add 15% CPOH on “Y-A”				6039.93	
	TOTAL				48259.03	Z
	Add Cess @ 1% on “Z-A”				463.06	
	Cost of 5 metre				48722.09	
	Cost per metre				9744.42	
	Say				9744.40	

18.73.8 450 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	450 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 127.800 Kg					
	Weight of 5 m pipes 127.800x5 = 639.00 Kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7693	Ductile Iron Pipe Class K-9 flanges and welding 450mm dia	metre	5.00	6800.00	34000.00	
2327	Carriage of Spun iron S & S pipes 450 mm dia Labour for laying	100 metre	0.05	0.00	0.00	
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.39	361.65	2310.94	A
	TOTAL				36310.94	W
	Add 1 % Water charges on “W-A”				340.00	
	TOTAL				36650.94	X
	Add GST on “X-A” (multiplying factor 0.2127)				7304.12	
	TOTAL				43955.06	Y
	Add 15% CPOH on “Y-A”				6246.62	
	TOTAL				50201.68	Z
	Add Cess @ 1% on “Z-A”				478.91	
	Cost of 5 metre				50680.59	
	Cost per metre				10136.12	
	Say				10136.10	

18.73.9 500 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	500 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 147.900 Kg					
	Weight of 5 m pipes 147.900x5 = 739.50 Kg					
7694	Ductile Iron Pipe Class K-9 flanges and welding 500mm dia	metre	5.00	10500.00	52500.00	
2328	Carriage of Spun iron S & S pipes 500 mm dia Labour for laying	100 metre	0.05	0.00	0.00	
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.40	361.65	2676.21	A
	TOTAL				55176.21	W
	Add 1 % Water charges on “W-A”				525.00	
	TOTAL				55701.21	X
	Add GST on “X-A” (multiplying factor 0.2127)				11278.42	
	TOTAL				66979.63	Y
	Add 15% CPOH on “Y-A”				9645.51	
	TOTAL				76625.14	Z
	Add Cess @ 1% on “Z-A”				739.49	
	Cost of 5 metre				77364.63	
	Cost per metre				15472.93	
	Say				15472.95	

18.73.10 600 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	600 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 198.900 Kg					
	Weight of 5 m pipes 198.900x5 = 994.50 Kg					
7695	Ductile Iron Pipe Class K-9 flanges and welding 600mm dia	metre	5.00	13500.00	67500.00	
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	9.95	361.65	3598.42	A
	TOTAL				71098.42	W
	Add 1 % Water charges on “W-A”				675.00	
	TOTAL				71773.42	X
	Add GST on “X-A” (multiplying factor 0.2127)				14500.82	
	TOTAL				86274.24	Y
	Add 15% CPOH on “Y-A”				12401.37	
	TOTAL				98675.61	Z
	Add Cess @ 1% on “Z-A”				950.77	
	Cost of 5 metre				99626.38	
	Cost per metre				19925.28	
	Say				19925.30	

18.73.11 700 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5 metre					
	MATERIAL					
	700 mm dia. ductile iron pipes double flanged					
	Weight of 1 m pipes = 254.900 Kg					
	Weight of 5 m pipes 254.900x5 = 1274.50 Kg					
7696	Ductile Iron Pipe Class K-9 flanges and welding 700mm dia	metre	5.00	15400.00	77000.00	
2353	Carriage of C.I. pipes 700 mm dia	100 metre	0.05	0.00	0.00	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	12.75	361.65	4611.04	A
	TOTAL				81611.04	W
	Add 1 % Water charges on “W-A”				770.00	
	TOTAL				82381.04	X
	Add GST on “X-A” (multiplying factor 0.2127)				16541.68	
	TOTAL				98922.72	Y
	Add 15% CPOH on “Y-A”				14146.75	
	TOTAL				113069.47	Z
	Add Cess @ 1% on “Z-A”				1084.58	
	Cost of 5 metre				114154.05	
	Cost per metre				22830.81	
	Say				22830.80	

18.74 Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.

18.74.1 15 mm nominal bore with 30cm length

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7862	15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T. Nuts	each	1.00	40.00	40.00	
9988	Carriage of materials and fixing charges	L.S.	12.22	2.27	27.74	
	TOTAL				67.74	W
	Add 1 % Water charges on “W”				0.68	
	TOTAL				68.42	X
	Add GST on “X” (multiplying factor 0.2127)				14.55	
	TOTAL				82.97	Y
	Add 15% CPOH on “Y”				12.45	
	TOTAL				95.42	Z
	Add Cess @ 1% on “Z”				0.95	
	Cost of one no.				96.37	
	Say				96.35	

18.74.2 15 mm nominal bore with 45 cm length

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7863	15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T. Nuts	each	1.00	55.00	55.00	
9988	Carriage of materials and fixing charges	L.S.	13.52	2.27	30.69	
	TOTAL				85.69	W
	Add 1 % Water charges on “W”				0.86	
	TOTAL				86.55	X
	Add GST on “X” (multiplying factor 0.2127)				18.41	
	TOTAL				104.96	Y
	Add 15% CPOH on “Y”				15.74	
	TOTAL				120.70	Z
	Add Cess @ 1% on “Z”				1.21	
	Cost of one no.				121.91	
	Say				121.90	

18.75 Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.

18.75.1 15 mm nominal bore, weighing not less than 32 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7864	P.T.M.T. extension nipple 15mm	each	1.00	30.00	30.00	
9988	Carriage of materials and fixing charges	L.S.	3.38	2.27	7.67	
	TOTAL				37.67	W
	Add 1 % Water charges on “W”				0.38	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				38.05	X
	Add GST on “X” (multiplying factor 0.2127)				8.09	
	TOTAL				46.14	Y
	Add 15% CPOH on “Y”				6.92	
	TOTAL				53.06	Z
	Add Cess @ 1% on “Z”				0.53	
	Cost of one no.				53.59	
	Say				53.60	

18.75.2 20 mm nominal bore, weighing not less than 40 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7865	P.T.M.T. extension nipple 20mm	each	1.00	58.00	58.00	
9988	Carriage of materials and fixing charges	L.S.	3.38	2.27	7.67	
	TOTAL				65.67	W
	Add 1 % Water charges on “W”				0.66	
	TOTAL				66.33	X
	Add GST on “X” (multiplying factor 0.2127)				14.11	
	TOTAL				80.44	Y
	Add 15% CPOH on “Y”				12.07	
	TOTAL				92.51	Z
	Add Cess @ 1% on “Z”				0.93	
	Cost of one no.				93.44	
	Say				93.45	

18.75.3 25mm nominal bore, weighing not less than 62 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7866	P.T.M.T. extension nipple 25mm	each	1.00	72.00	72.00	
9988	Carriage of materials and fixing charges	L.S.	3.38	2.27	7.67	
	TOTAL				79.67	W
	Add 1 % Water charges on “W”				0.80	
	TOTAL				80.47	X
	Add GST on “X” (multiplying factor 0.2127)				17.12	
	TOTAL				97.59	Y
	Add 15% CPOH on “Y”				14.64	
	TOTAL				112.23	Z
	Add Cess @ 1% on “Z”				1.12	
	Cost of one no.				113.35	
	Say				113.35	

18.76 Cutting holes up to 30x30 cm in walls including making good the same:

18.76.1 With common burnt clay F.P.S. (non modular) bricks

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 holes					
	Size 30x30 cm in 34 cm wall					
	Labour for cutting holes					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	0.16	897.00	143.52	
0124	Mason 2nd class	day	0.16	816.00	130.56	
0114	Beldar	day	1.25	736.00	920.00	
	Brick work with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand)					
	10x0.30x0.30x0.344m = 0.309 cum					
	Less 33% for pipe etc. = (-) 0.102 cum					
	= 0.207 cum Say 0.21 cum					
6.4.1	Rate as per item No 6.4.1 of SH :- Brick work.	cum	0.21	9344.35	1962.31	A
	12 mm cement plaster 1:4 (1 cement : 4 coarse sand)					
	10x2x0.3x0.3m = 1.80 sqm					
	Les 33% for pipe etc. = (-) 0.59 sqm					
	= 1.21 sqm Say 1.20 sqm					
13.4.1	(Rate as per item no 13.4.1 of SH : Finishing)	sqm	1.20	357.35	428.82	A
9999	Add for delay	L.S.	16.12	2.27	36.59	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3640.10	W
	Add 1 % Water charges on “W-A”				12.49	
	TOTAL				3652.59	X
	Add GST on “X-A” (multiplying factor 0.2127)				268.31	
	TOTAL				3920.90	Y
	Add 15% CPOH on “Y-A”				229.47	
	TOTAL				4150.37	Z
	Add Cess @ 1% on “Z-A”				17.59	
	Cost of 10 holes				4167.96	
	Cost of 1 hole				416.80	
	Say				416.80	

18.77 Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 holes					
	Average size 15x15x15 cm					
	Labour for cutting holes					
0123	Mason 1st class	day	0.83	897.00	744.51	
0124	Mason 2nd class	day	0.83	816.00	677.28	
0114	Beldar	day	1.67	736.00	1229.12	
	Cement concrete 1:2:4 (1 cement: 2 coarse sand ; 4 graded stone aggregate 20 mm nominal size)					
	10x0.15x0.15x0.15 m = 0.033 cum					
	Les 33% for pipe etc. = (-) 0.011 cum					
	= 0.022 cum Say 0.0.02 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work	cum	0.02	7878.50	157.57	A
9999	Finishing top and bottom and making the holes leak proof	L.S.	121.16	2.27	275.03	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Add for delay	L.S.	40.30	2.27	91.48	
9999	Sundries	L.S.	21.58	2.27	48.99	
	TOTAL				3223.98	W
	Add 1 % Water charges on "W-A"				30.66	
	TOTAL				3254.64	X
	Add GST on "X-A" (multiplying factor 0.2127)				658.75	
	TOTAL				3913.39	Y
	Add 15% CPOH on "Y-A"				563.37	
	TOTAL				4476.76	Z
	Add Cess @ 1% on "Z-A"				43.19	
	Cost of 10 holes				4519.95	
	Cost of 1 hole				452.00	
	Say				452.00	

18.78 Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	Labour for making chases					
0123	Mason 1st class	day	0.25	897.00	224.25	
0124	Mason 2nd class	day	0.25	816.00	204.00	
0114	Beldar	day	1.00	736.00	736.00	
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)					
	0.075x0.075x10 m = 0.05625 cum					
	Les 33% for pipe etc. = (-) 0.01856 cum					
	= 0.03769 cum Say 0.04 cum					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.04	9311.40	372.46	A
	TOTAL				1536.71	W
	Add 1 % Water charges on "W-A"				11.64	
	TOTAL				1548.35	X
	Add GST on "X-A" (multiplying factor 0.2127)				250.11	
	TOTAL				1798.46	Y
	Add 15% CPOH on "Y-A"				213.90	
	TOTAL				2012.36	Z
	Add Cess @ 1% on "Z-A"				16.40	
	Cost of 10 metre				2028.76	
	Cost of 1 metre				202.88	
	Say				202.90	

18.79 Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) including disposal of malba.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)					
	0.2x0.2x10 m = 0.40 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Les for pipe 3.14x(0.15)²/4x10 = (-) 0.177 cum = 0.223 cum Say 0.22 cum					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.22	9311.40	2048.51	A
9999	Disposal of malba	L.S.	13.52	2.27	30.69	
	TOTAL				2079.20	W
	Add 1 % Water charges on “W-A”				0.31	
	TOTAL				2079.51	X
	Add GST on “X-A” (multiplying factor 0.2127)				6.59	
	TOTAL				2086.10	Y
	Add 15% CPOH on “Y-A”				5.64	
	TOTAL				2091.74	Z
	Add Cess @ 1% on “Z-A”				0.43	
	Cost of 10 metre				2092.17	
	Cost of 1 metre				209.22	
	Say				209.20	

18.80 Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.

18.80.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres MATERIAL Bleaching powder 3x3.14/4x(80/10)²x (100x100)/1000x 0.5 gms = 754.28 gms Say 0.008 q					
1301	Bleaching powder	quintal	0.008	1700.00	13.60	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0114	Beldar	day	1.31	736.00	964.16	
9999	Sundries including testing of samples	L.S.	9.88	2.27	22.43	
	TOTAL				1296.20	W
	Add 1 % Water charges on “W”				12.96	
	TOTAL				1309.16	X
	Add GST on “X” (multiplying factor 0.2127)				278.46	
	TOTAL				1587.62	Y
	Add 15% CPOH on “Y”				238.14	
	TOTAL				1825.76	Z
	Add Cess @ 1% on “Z”				18.26	
	Cost of 100 metre				1844.02	
	Say				1844.00	

18.80.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres MATERIAL Bleaching powder 3x3.14/4x(100/10)²x (100x100)/1000x 0.5 gms = 1178.57 gms Say 0.012 q					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1301	Bleaching powder	quintal	0.012	1700.00	20.40	
	LABOUR					
0116	Fitter (grade 1)	day	0.49	897.00	439.53	
0114	Beldar	day	1.64	736.00	1207.04	
9999	Sundries including testing of samples	L.S.	13.52	2.27	30.69	
	TOTAL				1697.66	W
	Add 1 % Water charges on “W”				16.98	
	TOTAL				1714.64	X
	Add GST on “X” (multiplying factor 0.2127)				364.70	
	TOTAL				2079.34	Y
	Add 15% CPOH on “Y”				311.90	
	TOTAL				2391.24	Z
	Add Cess @ 1% on “Z”				23.91	
	Cost of 100 metre				2415.15	
	Say				2415.15	

18.80.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(125/10)²x (100x100)/1000x 0.5 gms = 1841.52 gms Say 0.018 q					
1301	Bleaching powder	quintal	0.018	1700.00	30.60	
	LABOUR					
0116	Fitter (grade 1)	day	0.66	897.00	592.02	
0114	Beldar	day	1.97	736.00	1449.92	
9999	Sundries including testing of samples	L.S.	17.94	2.27	40.72	
	TOTAL				2113.26	W
	Add 1 % Water charges on “W”				21.13	
	TOTAL				2134.39	X
	Add GST on “X” (multiplying factor 0.2127)				453.98	
	TOTAL				2588.37	Y
	Add 15% CPOH on “Y”				388.26	
	TOTAL				2976.63	Z
	Add Cess @ 1% on “Z”				29.77	
	Cost of 100 metre				3006.40	
	Say				3006.40	

18.80.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(150/10)²x(100x100)/1000x 0.5 gms = 2651 gms Say 0.027 q					
1301	Bleaching powder	quintal	0.027	1700.00	45.90	
	LABOUR					
0116	Fitter (grade 1)	day	0.82	897.00	735.54	
0114	Beldar	day	2.30	736.00	1692.80	
9999	Sundries including testing of samples	L.S.	22.88	2.27	51.94	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2526.18	W
	Add 1 % Water charges on “W”				25.26	
	TOTAL				2551.44	X
	Add GST on “X” (multiplying factor 0.2127)				542.69	
	TOTAL				3094.13	Y
	Add 15% CPOH on “Y”				464.12	
	TOTAL				3558.25	Z
	Add Cess @ 1% on “Z”				35.58	
	Cost of 100 metre				3593.83	
	Say				3593.85	

18.80.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(200/10)²x (100x100)/1000x 0.5 gms = 4712.39 gms Say 0.047 q					
1301	Bleaching powder	quintal	0.047	1700.00	79.90	
	LABOUR					
0116	Fitter (grade 1)	day	1.15	897.00	1031.55	
0114	Beldar	day	2.95	736.00	2171.20	
9999	Sundries including testing of samples	L.S.	31.46	2.27	71.41	
	TOTAL				3354.06	W
	Add 1 % Water charges on “W”				33.54	
	TOTAL				3387.60	X
	Add GST on “X” (multiplying factor 0.2127)				720.54	
	TOTAL				4108.14	Y
	Add 15% CPOH on “Y”				616.22	
	TOTAL				4724.36	Z
	Add Cess @ 1% on “Z”				47.24	
	Cost of 100 metre				4771.60	
	Say				4771.60	

18.80.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(250/10)²x (100x100)/1000x 0.5 gms = 7363.10 gms Say 0.074 q					
1301	Bleaching powder	quintal	0.074	1700.00	125.80	
	LABOUR					
0116	Fitter (grade 1)	day	1.48	897.00	1327.56	
0114	Beldar	day	3.61	736.00	2656.96	
9999	Sundries including testing of samples	L.S.	40.30	2.27	91.48	
	TOTAL				4201.80	W
	Add 1 % Water charges on “W”				42.02	
	TOTAL				4243.82	X
	Add GST on “X” (multiplying factor 0.2127)				902.66	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				5146.48	Y
	Add 15% CPOH on “Y”				771.97	
	TOTAL				5918.45	Z
	Add Cess @ 1% on “Z”				59.18	
	Cost of 100 metre				5977.63	
	Say				5977.65	

18.80.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(300/10)²x (100x100)/1000x 0.5 gms = 10602.88 gms Say 0.106 q					
1301	Bleaching powder	quintal	0.106	1700.00	180.20	
	LABOUR					
0116	Fitter (grade 1)	day	1.64	897.00	1471.08	
0114	Beldar	day	3.94	736.00	2899.84	
9999	Sundries including testing of samples	L.S.	44.46	2.27	100.92	
	TOTAL				4652.04	W
	Add 1 % Water charges on “W”				46.52	
	TOTAL				4698.56	X
	Add GST on “X” (multiplying factor 0.2127)				999.38	
	TOTAL				5697.94	Y
	Add 15% CPOH on “Y”				854.69	
	TOTAL				6552.63	Z
	Add Cess @ 1% on “Z”				65.53	
	Cost of 100 metre				6618.16	
	Say				6618.15	

18.80.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(350/10)²x (100x100)/1000x 0.5 gms = 14431.70 gms Say 0.144 q					
1301	Bleaching powder	quintal	0.144	1700.00	244.80	
	LABOUR					
0116	Fitter (grade 1)	day	1.80	897.00	1614.60	
0114	Beldar	day	4.27	736.00	3142.72	
9999	Sundries including testing of samples	L.S.	48.36	2.27	109.78	
	TOTAL				5111.90	W
	Add 1 % Water charges on “W”				51.12	
	TOTAL				5163.02	X
	Add GST on “X” (multiplying factor 0.2127)				1098.17	
	TOTAL				6261.19	Y
	Add 15% CPOH on “Y”				939.18	
	TOTAL				7200.37	Z
	Add Cess @ 1% on “Z”				72.00	
	Cost of 100 metre				7272.37	
	Say				7272.35	

18.80.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(400/10)²x (100x100)/1000x 0.5 gms = 18849.60 gms Say 0.189 q					
1301	Bleaching powder	quintal	0.189	1700.00	321.30	
	LABOUR					
0116	Fitter (grade 1)	day	1.97	897.00	1767.09	
0114	Beldar	day	4.59	736.00	3378.24	
9999	Sundries including testing of samples	L.S.	53.82	2.27	122.17	
	TOTAL				5588.80	W
	Add 1 % Water charges on “W”				55.89	
	TOTAL				5644.69	X
	Add GST on “X” (multiplying factor 0.2127)				1200.63	
	TOTAL				6845.32	Y
	Add 15% CPOH on “Y”				1026.80	
	TOTAL				7872.12	Z
	Add Cess @ 1% on “Z”				78.72	
	Cost of 100 metre				7950.84	
	Say				7950.85	

18.80.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(450/10)²x (100x100)/1000x 0.5 gms = 23856.50 gms Say 0.239 q					
1301	Bleaching powder	quintal	0.239	1700.00	406.30	
	LABOUR					
0116	Fitter (grade 1)	day	2.13	897.00	1910.61	
0114	Beldar	day	4.92	736.00	3621.12	
9999	Sundries including testing of samples	L.S.	58.24	2.27	132.20	
	TOTAL				6070.23	W
	Add 1 % Water charges on “W”				60.70	
	TOTAL				6130.93	X
	Add GST on “X” (multiplying factor 0.2127)				1304.05	
	TOTAL				7434.98	Y
	Add 15% CPOH on “Y”				1115.25	
	TOTAL				8550.23	Z
	Add Cess @ 1% on “Z”				85.50	
	Cost of 100 metre				8635.73	
	Say				8635.75	

18.80.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(500/10)²x (100x100)/1000x 0.5 gms = 29452.40 gms Say 0.295 q					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1301	Bleaching powder	quintal	0.295	1700.00	501.50	
	LABOUR					
0116	Fitter (grade 1)	day	2.30	897.00	2063.10	
0114	Beldar	day	5.25	736.00	3864.00	
9999	Sundries including testing of samples	L.S.	63.7	2.27	144.60	
	TOTAL				6573.20	W
	Add 1 % Water charges on “W”				65.73	
	TOTAL				6638.93	X
	Add GST on “X” (multiplying factor 0.2127)				1412.10	
	TOTAL				8051.03	Y
	Add 15% CPOH on “Y”				1207.65	
	TOTAL				9258.68	Z
	Add Cess @ 1% on “Z”				92.59	
	Cost of 100 metre				9351.27	
	Say				9351.25	

18.80.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder					
	3x3.14/4x(600/10)²x (100x100)/1000x 0.5 gms = 42411.5 gms Say 0.424 q					
1301	Bleaching powder	quintal	0.424	1700.00	720.80	
	LABOUR					
0116	Fitter (grade 1)	day	2.62	897.00	2350.14	
0114	Beldar	day	5.91	736.00	4349.76	
9999	Sundries including testing of samples	L.S.	71.37	2.27	162.01	
	TOTAL				7582.71	W
	Add 1 % Water charges on “W”				75.83	
	TOTAL				7658.54	X
	Add GST on “X” (multiplying factor 0.2127)				1628.97	
	TOTAL				9287.51	Y
	Add 15% CPOH on “Y”				1393.13	
	TOTAL				10680.64	Z
	Add Cess @ 1% on “Z”				106.81	
	Cost of 100 metre				10787.45	
	Say				10787.45	

18.81 Extra for every operation of disinfecting the C.I. main by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, including getting the samples of water tested in the municipal laboratory:

18.81.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.003	1700.00	5.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.49	736.00	360.64	
9999	Sundries including testing of samples	L.S.	4.42	2.27	10.03	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				474.44	W
	Add 1 % Water charges on “W”				4.74	
	TOTAL				479.18	X
	Add GST on “X” (multiplying factor 0.2127)				101.92	
	TOTAL				581.10	Y
	Add 15% CPOH on “Y”				87.17	
	TOTAL				668.27	Z
	Add Cess @ 1% on “Z”				6.68	
	Cost of 100 metre				674.95	
	Say				674.95	

18.81.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.004	1700.00	6.80	
	LABOUR					
0116	Fitter (grade 1)	day	0.16	897.00	143.52	
0114	Beldar	day	0.57	736.00	419.52	
9999	Sundries including testing of samples	L.S.	4.42	2.27	10.03	
	TOTAL				579.87	W
	Add 1 % Water charges on “W”				5.80	
	TOTAL				585.67	X
	Add GST on “X” (multiplying factor 0.2127)				124.57	
	TOTAL				710.24	Y
	Add 15% CPOH on “Y”				106.54	
	TOTAL				816.78	Z
	Add Cess @ 1% on “Z”				8.17	
	Cost of 100 metre				824.95	
	Say				824.95	

18.81.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.006	1700.00	10.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	897.00	197.34	
0114	Beldar	day	0.66	736.00	485.76	
9999	Sundries including testing of samples	L.S.	5.46	2.27	12.39	
	TOTAL				705.69	W
	Add 1 % Water charges on “W”				7.06	
	TOTAL				712.75	X
	Add GST on “X” (multiplying factor 0.2127)				151.60	
	TOTAL				864.35	Y
	Add 15% CPOH on “Y”				129.65	
	TOTAL				994.00	Z
	Add Cess @ 1% on “Z”				9.94	
	Cost of 100 metre				1003.94	
	Say				1003.95	

18.81.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.009	1700.00	15.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.27	897.00	242.19	
0114	Beldar	day	0.74	736.00	544.64	
9999	Sundries including testing of samples	L.S.	7.15	2.27	16.23	
	TOTAL				818.36	W
	Add 1 % Water charges on “W”				8.18	
	TOTAL				826.54	X
	Add GST on “X” (multiplying factor 0.2127)				175.81	
	TOTAL				1002.35	Y
	Add 15% CPOH on “Y”				150.35	
	TOTAL				1152.70	Z
	Add Cess @ 1% on “Z”				11.53	
	Cost of 100 metre				1164.23	
	Say				1164.25	

18.81.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.016	1700.00	27.20	
	LABOUR					
0116	Fitter (grade 1)	day	0.58	897.00	520.26	
0114	Beldar	day	0.90	736.00	662.40	
9999	Sundries including testing of samples	L.S.	9.88	2.27	22.43	
	TOTAL				1232.29	W
	Add 1 % Water charges on “W”				12.32	
	TOTAL				1244.61	X
	Add GST on “X” (multiplying factor 0.2127)				264.73	
	TOTAL				1509.34	Y
	Add 15% CPOH on “Y”				226.40	
	TOTAL				1735.74	Z
	Add Cess @ 1% on “Z”				17.36	
	Cost of 100 metre				1753.10	
	Say				1753.10	

18.81.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.025	1700.00	42.50	
	LABOUR					
0116	Fitter (grade 1)	day	0.60	897.00	538.20	
0114	Beldar	day	1.10	736.00	809.60	
9999	Sundries including testing of samples	L.S.	10.79	2.27	24.49	
	TOTAL				1414.79	W
	Add 1 % Water charges on “W”				14.15	
	TOTAL				1428.94	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				303.94	
	TOTAL				1732.88	Y
	Add 15% CPOH on “Y”				259.93	
	TOTAL				1992.81	Z
	Add Cess @ 1% on “Z”				19.93	
	Cost of 100 metre				2012.74	
	Say				2012.75	

18.81.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.035	1700.00	59.50	
	LABOUR					
0116	Fitter (grade 1)	day	0.60	897.00	538.20	
0114	Beldar	day	1.30	736.00	956.80	
9999	Sundries including testing of samples	L.S.	13.52	2.27	30.69	
	TOTAL				1585.19	W
	Add 1 % Water charges on “W”				15.85	
	TOTAL				1601.04	X
	Add GST on “X” (multiplying factor 0.2127)				340.54	
	TOTAL				1941.58	Y
	Add 15% CPOH on “Y”				291.24	
	TOTAL				2232.82	Z
	Add Cess @ 1% on “Z”				22.33	
	Cost of 100 metre				2255.15	
	Say				2255.15	

18.81.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.048	1700.00	81.60	
	LABOUR					
0116	Fitter (grade 1)	day	0.70	897.00	627.90	
0114	Beldar	day	1.50	736.00	1104.00	
9999	Sundries including testing of samples	L.S.	16.12	2.27	36.59	
	TOTAL				1850.09	W
	Add 1 % Water charges on “W”				18.50	
	TOTAL				1868.59	X
	Add GST on “X” (multiplying factor 0.2127)				397.45	
	TOTAL				2266.04	Y
	Add 15% CPOH on “Y”				339.91	
	TOTAL				2605.95	Z
	Add Cess @ 1% on “Z”				26.06	
	Cost of 100 metre				2632.01	
	Say				2632.00	

18.81.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.063	1700.00	107.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.80	897.00	717.60	
0114	Beldar	day	1.70	736.00	1251.20	
9999	Sundries including testing of samples	L.S.	17.94	2.27	40.72	
	TOTAL				2116.62	W
	Add 1 % Water charges on “W”				21.17	
	TOTAL				2137.79	X
	Add GST on “X” (multiplying factor 0.2127)				454.71	
	TOTAL				2592.50	Y
	Add 15% CPOH on “Y”				388.88	
	TOTAL				2981.38	Z
	Add Cess @ 1% on “Z”				29.81	
	Cost of 100 metre				3011.19	
	Say				3011.20	

18.81.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.08	1700.00	136.00	
	LABOUR					
0116	Fitter (grade 1)	day	0.90	897.00	807.30	
0114	Beldar	day	1.90	736.00	1398.40	
9999	Sundries including testing of samples	L.S.	20.67	2.27	46.92	
	TOTAL				2388.62	W
	Add 1 % Water charges on “W”				23.89	
	TOTAL				2412.51	X
	Add GST on “X” (multiplying factor 0.2127)				513.14	
	TOTAL				2925.65	Y
	Add 15% CPOH on “Y”				438.85	
	TOTAL				3364.50	Z
	Add Cess @ 1% on “Z”				33.65	
	Cost of 100 metre				3398.15	
	Say				3398.15	

18.81.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.098	1700.00	166.60	
	LABOUR					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0114	Beldar	day	2.10	736.00	1545.60	
9999	Sundries including testing of samples	L.S.	23.27	2.27	52.82	
	TOTAL				2662.02	W
	Add 1 % Water charges on “W”				26.62	
	TOTAL				2688.64	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				571.87	
	TOTAL				3260.51	Y
	Add 15% CPOH on “Y”				489.08	
	TOTAL				3749.59	Z
	Add Cess @ 1% on “Z”				37.50	
	Cost of 100 metre				3787.09	
	Say				3787.10	

18.81.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
1301	Bleaching powder	quintal	0.141	1700.00	239.70	
	LABOUR					
0116	Fitter (grade 1)	day	1.20	897.00	1076.40	
0114	Beldar	day	2.50	736.00	1840.00	
9999	Sundries including testing of samples	L.S.	26.00	2.27	59.02	
	TOTAL				3215.12	W
	Add 1 % Water charges on “W”				32.15	
	TOTAL				3247.27	X
	Add GST on “X” (multiplying factor 0.2127)				690.69	
	TOTAL				3937.96	Y
	Add 15% CPOH on “Y”				590.69	
	TOTAL				4528.65	Z
	Add Cess @ 1% on “Z”				45.29	
	Cost of 100 metre				4573.94	
	Say				4573.95	

18.82 Dismantling old C.I. pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks, including stacking of pipes at site lead up to 50 metre:

18.82.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x55x0.75 m=16.61 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.098)² =(-) 0.30 cum					
	Total= 16.31 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.31	260.30	4245.49	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.31	196.00	3196.76	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	0.373	550.00	205.15	
0771	Kerosene oil	litre	0.379	50.00	18.95	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0117	Assistant Fitter or 2nd class Fitter	day	0.50	816.00	408.00	
0114	Beldar	day	4.00	736.00	2944.00	
9988	Sundries and carriage	L.S.	53.82	2.27	122.17	
	TOTAL				11140.52	W
	Add 1 % Water charges on “W-A”				36.98	
	TOTAL				11177.50	X
	Add GST on “X-A” (multiplying factor 0.2127)				794.49	
	TOTAL				11971.99	Y
	Add 15% CPOH on “Y-A”				679.46	
	TOTAL				12651.45	Z
	Add Cess @ 1% on “Z-A”				52.09	
	Cost of 40.26 metre				12703.54	
	Cost of one metre				315.54	
	Say				315.55	

18.82.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x55x0.75 m=16.61 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.118)² =(-) 0.44 cum					
	Total= 16.17 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.17	260.30	4209.05	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.17	196.00	3169.32	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	0.466	550.00	256.30	
0771	Kerosene oil	litre	0.379	50.00	18.95	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	0.63	816.00	514.08	
0114	Beldar	day	4.50	736.00	3312.00	
9988	Sundries and carriage	L.S.	53.82	2.27	122.17	
	TOTAL				11601.87	W
	Add 1 % Water charges on “W-A”				42.24	
	TOTAL				11644.11	X
	Add GST on “X-A” (multiplying factor 0.2127)				907.32	
	TOTAL				12551.43	Y
	Add 15% CPOH on “Y-A”				775.96	
	TOTAL				13327.39	Z
	Add Cess @ 1% on “Z-A”				59.49	
	Cost of 40.26 metre				13386.88	
	Cost of one metre				332.51	
	Say				332.50	

18.82.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x55x0.75 m=16.61 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.144)² =(-) 0.65 cum					
	Total= 15.96 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	15.96	260.30	4154.39	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.96	196.00	3128.16	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	0.559	550.00	307.45	
0771	Kerosene oil	litre	0.568	50.00	28.40	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	0.75	816.00	612.00	
0114	Beldar	day	5.00	736.00	3680.00	
9988	Sundries and carriage	L.S.	53.82	2.27	122.17	
	TOTAL				12032.57	W
	Add 1 % Water charges on “W-A”				47.50	
	TOTAL				12080.07	X
	Add GST on “X-A” (multiplying factor 0.2127)				1020.43	
	TOTAL				13100.50	Y
	Add 15% CPOH on “Y-A”				872.69	
	TOTAL				13973.19	Z
	Add Cess @ 1% on “Z-A”				66.91	
	Cost of 40.26 metre				14040.10	
	Cost of one metre				348.74	
	Say				348.75	

18.82.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x55x0.75 m=16.61 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.17)² =(-) 0.91 cum					
	Total= 15.70 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	15.70	260.30	4086.71	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.70	196.00	3077.20	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0761	Fuel wood	quintal	0.653	550.00	359.15	
0771	Kerosene oil	litre	0.568	50.00	28.40	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	0.88	816.00	718.08	
0114	Beldar	day	5.50	736.00	4048.00	
9988	Sundries and carriage	L.S.	67.21	2.27	152.57	
	TOTAL				12470.11	W
	Add 1 % Water charges on “W-A”				53.06	
	TOTAL				12523.17	X
	Add GST on “X-A” (multiplying factor 0.2127)				1139.91	
	TOTAL				13663.08	Y
	Add 15% CPOH on “Y-A”				974.88	
	TOTAL				14637.96	Z
	Add Cess @ 1% on “Z-A”				74.74	
	Cost of 40.26 metre				14712.70	
	Cost of one metre				365.44	
	Say				365.45	

18.82.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x60x0.75 m=18.12 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.222)² =(-) 1.56 cum					
	Total= 16.56 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.56	260.30	4310.57	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.56	196.00	3245.76	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	0.84	550.00	462.00	
0771	Kerosene oil	litre	0.758	50.00	37.90	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	1.10	816.00	897.60	
0114	Beldar	day	6.50	736.00	4784.00	
9988	Sundries and carriage	L.S.	67.21	2.27	152.57	
	TOTAL				13890.40	W
	Add 1 % Water charges on “W-A”				63.34	
	TOTAL				13953.74	X
	Add GST on “X-A” (multiplying factor 0.2127)				1360.73	
	TOTAL				15314.47	Y
	Add 15% CPOH on “Y-A”				1163.72	
	TOTAL				16478.19	Z
	Add Cess @ 1% on “Z-A”				89.22	
	Cost of 40.26 metre				16567.41	
	Cost of one metre				411.51	
	Say				411.50	

18.82.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.65x0.75 m=19.63 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.274)² =(-) 2.37 cum					
	Total= 17.26 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.26	260.30	4492.78	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.26	196.00	3382.96	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.026	550.00	564.30	
0771	Kerosene oil	litre	1.137	50.00	56.85	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	1.30	816.00	1060.80	
0114	Beldar	day	7.50	736.00	5520.00	
9988	Sundries and carriage	L.S.	80.73	2.27	183.26	
	TOTAL				15260.95	W
	Add 1 % Water charges on “W-A”				73.85	
	TOTAL				15334.80	X
	Add GST on “X-A” (multiplying factor 0.2127)				1586.54	
	TOTAL				16921.34	Y
	Add 15% CPOH on “Y-A”				1356.84	
	TOTAL				18278.18	Z
	Add Cess @ 1% on “Z-A”				104.02	
	Cost of 40.26 metre				18382.20	
	Cost of one metre				456.59	
	Say				456.60	

18.82.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.70x0.75 m=21.14 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.326)² =(-) 3.36 cum					
	Total= 17.78 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.78	260.30	4628.13	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.78	196.00	3484.88	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0761	Fuel wood	quintal	1.12	550.00	616.00	
0771	Kerosene oil	litre	1.515	50.00	75.75	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	1.50	816.00	1224.00	
0114	Beldar	day	8.50	736.00	6256.00	
9988	Sundries and carriage	L.S.	94.12	2.27	213.65	
	TOTAL				16498.41	W
	Add 1 % Water charges on “W-A”				83.85	
	TOTAL				16582.26	X
	Add GST on “X-A” (multiplying factor 0.2127)				1801.41	
	TOTAL				18383.67	Y
	Add 15% CPOH on “Y-A”				1540.60	
	TOTAL				19924.27	Z
	Add Cess @ 1% on “Z-A”				118.11	
	Cost of 40.26 metre				20042.38	
	Cost of one metre				497.82	
	Say				497.80	

18.82.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.75x0.75 m=22.65 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.378)² =(-) 4.51 cum					
	Total= 18.14 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.14	260.30	4721.84	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.14	196.00	3555.44	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.213	550.00	667.15	
0771	Kerosene oil	litre	1.515	50.00	75.75	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	1.75	816.00	1428.00	
0114	Beldar	day	9.50	736.00	6992.00	
9988	Sundries and carriage	L.S.	107.64	2.27	244.34	
	TOTAL				17684.52	W
	Add 1 % Water charges on “W-A”				94.07	
	TOTAL				17778.59	X
	Add GST on “X-A” (multiplying factor 0.2127)				2020.93	
	TOTAL				19799.52	Y
	Add 15% CPOH on “Y-A”				1728.34	
	TOTAL				21527.86	Z
	Add Cess @ 1% on “Z-A”				132.51	
	Cost of 40.26 metre				21660.37	
	Cost of one metre				538.01	
	Say				538.00	

18.82.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.80x0.75 m=24.16 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.429)² =(-) 5.93 cum					
	Total= 18.23 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.23	260.30	4745.27	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.23	196.00	3573.08	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.306	550.00	718.30	
0771	Kerosene oil	litre	1.894	50.00	94.70	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	2.00	816.00	1632.00	
0114	Beldar	day	10.50	736.00	7728.00	
9988	Sundries and carriage	L.S.	121.03	2.27	274.74	
	TOTAL				18766.09	W
	Add 1 % Water charges on “W-A”				104.48	
	TOTAL				18870.57	X
	Add GST on “X-A” (multiplying factor 0.2127)				2244.46	
	TOTAL				21115.03	Y
	Add 15% CPOH on “Y-A”				1919.50	
	TOTAL				23034.53	Z
	Add Cess @ 1% on “Z-A”				147.16	
	Cost of 40.26 metre				23181.69	
	Cost of one metre				575.80	
	Say				575.80	

18.82.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.85x0.75 m=25.67 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.48)² =(-) 7.29 cum					
	Total= 18.38 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.38	260.30	4784.31	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.38	196.00	3602.48	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.40	550.00	770.00	
0771	Kerosene oil	litre	2.273	50.00	113.65	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	2.25	816.00	1836.00	
0114	Beldar	day	11.50	736.00	8464.00	
9988	Sundries and carriage	L.S.	134.55	2.27	305.43	
	TOTAL				19875.87	W
	Add 1 % Water charges on “W-A”				114.89	
	TOTAL				19990.76	X
	Add GST on “X-A” (multiplying factor 0.2127)				2468.16	
	TOTAL				22458.92	Y
	Add 15% CPOH on “Y-A”				2110.82	
	TOTAL				24569.74	Z
	Add Cess @ 1% on “Z-A”				161.83	
	Cost of 40.26 metre				24731.57	
	Cost of one metre				614.30	
	Say				614.30	

18.82.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.90x0.75 m=27.18 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.532)² =(-) 8.94 cum					
	Total= 18.24 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.24	260.30	4747.87	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.24	196.00	3575.04	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.492	550.00	820.60	
0771	Kerosene oil	litre	2.652	50.00	132.60	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	2.50	816.00	2040.00	
0114	Beldar	day	12.50	736.00	9200.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Sundries and carriage	L.S.	147.94	2.27	335.82	
	TOTAL				20851.93	W
	Add 1 % Water charges on "W-A"				125.29	
	TOTAL				20977.22	X
	Add GST on "X-A" (multiplying factor 0.2127)				2691.57	
	TOTAL				23668.79	Y
	Add 15% CPOH on "Y-A"				2301.88	
	TOTAL				25970.67	Z
	Add Cess @ 1% on "Z-A"				176.48	
	Cost of 40.26 metre				26147.15	
	Cost of one metre				649.46	
	Say				649.45	

18.82.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x1.00x0.75 m=30.20 cum					
	Deduct for pipe 1x40.26x3.14/4x(0.635)² =(-) 12.76 cum					
	Total= 17.44 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.44	260.30	4539.63	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.44	196.00	3418.24	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.68	550.00	924.00	
0771	Kerosene oil	litre	3.41	50.00	170.50	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	3.00	816.00	2448.00	
0114	Beldar	day	14.50	736.00	10672.00	
9988	Sundries and carriage	L.S.	174.85	2.27	396.91	
	TOTAL				22569.28	W
	Add 1 % Water charges on "W-A"				146.11	
	TOTAL				22715.39	X
	Add GST on "X-A" (multiplying factor 0.2127)				3138.92	
	TOTAL				25854.31	Y
	Add 15% CPOH on "Y-A"				2684.47	
	TOTAL				28538.78	Z
	Add Cess @ 1% on "Z-A"				205.81	
	Cost of 40.26 metre				28744.59	
	Cost of one metre				713.97	
	Say				713.95	

18.83 Labour for cutting C.I. pipe with steel saw.

18.83.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.06	897.00	53.82	
0114	Beldar	day	0.06	736.00	44.16	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	1.82	2.27	4.13	
	TOTAL				102.11	W
	Add 1 % Water charges on “W”				1.02	
	TOTAL				103.13	X
	Add GST on “X” (multiplying factor 0.2127)				21.94	
	TOTAL				125.07	Y
	Add 15% CPOH on “Y”				18.76	
	TOTAL				143.83	Z
	Add Cess @ 1% on “Z”				1.44	
	Cost of each cut				145.27	
	Say				145.25	

18.83.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.08	897.00	71.76	
0114	Beldar	day	0.08	736.00	58.88	
9999	Sundries	L.S.	2.73	2.27	6.20	
	TOTAL				136.84	W
	Add 1 % Water charges on “W”				1.37	
	TOTAL				138.21	X
	Add GST on “X” (multiplying factor 0.2127)				29.40	
	TOTAL				167.61	Y
	Add 15% CPOH on “Y”				25.14	
	TOTAL				192.75	Z
	Add Cess @ 1% on “Z”				1.93	
	Cost of each cut				194.68	
	Say				194.70	

18.83.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.11	897.00	98.67	
0114	Beldar	day	0.11	736.00	80.96	
9999	Sundries	L.S.	4.42	2.27	10.03	
	TOTAL				189.66	W
	Add 1 % Water charges on “W”				1.90	
	TOTAL				191.56	X
	Add GST on “X” (multiplying factor 0.2127)				40.74	
	TOTAL				232.30	Y
	Add 15% CPOH on “Y”				34.85	
	TOTAL				267.15	Z
	Add Cess @ 1% on “Z”				2.67	
	Cost of each cut				269.82	
	Say				269.80	

18.83.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.15	897.00	134.55	
0114	Beldar	day	0.15	736.00	110.40	
9999	Sundries	L.S.	5.33	2.27	12.10	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				257.05	W
	Add 1 % Water charges on “W”				2.57	
	TOTAL				259.62	X
	Add GST on “X” (multiplying factor 0.2127)				55.22	
	TOTAL				314.84	Y
	Add 15% CPOH on “Y”				47.23	
	TOTAL				362.07	Z
	Add Cess @ 1% on “Z”				3.62	
	Cost of each cut				365.69	
	Say				365.70	

18.83.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.20	897.00	179.40	
0114	Beldar	day	0.20	736.00	147.20	
9999	Sundries	L.S.	7.15	2.27	16.23	
	TOTAL				342.83	W
	Add 1 % Water charges on “W”				3.43	
	TOTAL				346.26	X
	Add GST on “X” (multiplying factor 0.2127)				73.65	
	TOTAL				419.91	Y
	Add 15% CPOH on “Y”				62.99	
	TOTAL				482.90	Z
	Add Cess @ 1% on “Z”				4.83	
	Cost of each cut				487.73	
	Say				487.75	

18.83.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.25	897.00	224.25	
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				426.55	W
	Add 1 % Water charges on “W”				4.27	
	TOTAL				430.82	X
	Add GST on “X” (multiplying factor 0.2127)				91.64	
	TOTAL				522.46	Y
	Add 15% CPOH on “Y”				78.37	
	TOTAL				600.83	Z
	Add Cess @ 1% on “Z”				6.01	
	Cost of each cut				606.84	
	Say				606.85	

18.83.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.30	897.00	269.10	
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	9.88	2.27	22.43	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				512.33	W
	Add 1 % Water charges on “W”				5.12	
	TOTAL				517.45	X
	Add GST on “X” (multiplying factor 0.2127)				110.06	
	TOTAL				627.51	Y
	Add 15% CPOH on “Y”				94.13	
	TOTAL				721.64	Z
	Add Cess @ 1% on “Z”				7.22	
	Cost of each cut				728.86	
	Say				728.85	

18.83.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.35	897.00	313.95	
0114	Beldar	day	0.35	736.00	257.60	
9999	Sundries	L.S.	10.79	2.27	24.49	
	TOTAL				596.04	W
	Add 1 % Water charges on “W”				5.96	
	TOTAL				602.00	X
	Add GST on “X” (multiplying factor 0.2127)				128.05	
	TOTAL				730.05	Y
	Add 15% CPOH on “Y”				109.51	
	TOTAL				839.56	Z
	Add Cess @ 1% on “Z”				8.40	
	Cost of each cut				847.96	
	Say				847.95	

18.83.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.40	897.00	358.80	
0114	Beldar	day	0.40	736.00	294.40	
9999	Sundries	L.S.	12.48	2.27	28.33	
	TOTAL				681.53	W
	Add 1 % Water charges on “W”				6.82	
	TOTAL				688.35	X
	Add GST on “X” (multiplying factor 0.2127)				146.41	
	TOTAL				834.76	Y
	Add 15% CPOH on “Y”				125.21	
	TOTAL				959.97	Z
	Add Cess @ 1% on “Z”				9.60	
	Cost of each cut				969.57	
	Say				969.55	

18.83.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.45	897.00	403.65	
0114	Beldar	day	0.45	736.00	331.20	
9999	Sundries	L.S.	13.52	2.27	30.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				765.54	W
	Add 1 % Water charges on “W”				7.66	
	TOTAL				773.20	X
	Add GST on “X” (multiplying factor 0.2127)				164.46	
	TOTAL				937.66	Y
	Add 15% CPOH on “Y”				140.65	
	TOTAL				1078.31	Z
	Add Cess @ 1% on “Z”				10.78	
	Cost of each cut				1089.09	
	Say				1089.10	

18.83.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	15.21	2.27	34.53	
	TOTAL				851.03	W
	Add 1 % Water charges on “W”				8.51	
	TOTAL				859.54	X
	Add GST on “X” (multiplying factor 0.2127)				182.82	
	TOTAL				1042.36	Y
	Add 15% CPOH on “Y”				156.35	
	TOTAL				1198.71	Z
	Add Cess @ 1% on “Z”				11.99	
	Cost of each cut				1210.70	
	Say				1210.70	

18.83.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one cut.					
	LABOUR					
0116	Fitter (grade 1)	day	0.60	897.00	538.20	
0114	Beldar	day	0.60	736.00	441.60	
9999	Sundries	L.S.	16.12	2.27	36.59	
	TOTAL				1016.39	W
	Add 1 % Water charges on “W”				10.16	
	TOTAL				1026.55	X
	Add GST on “X” (multiplying factor 0.2127)				218.35	
	TOTAL				1244.90	Y
	Add 15% CPOH on “Y”				186.74	
	TOTAL				1431.64	Z
	Add Cess @ 1% on “Z”				14.32	
	Cost of each cut				1445.96	
	Say				1445.95	

18.84 Providing & fixing chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.

18.84.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
3327	15 mm Battery Based Sensor Pillar Cock	each	1.00	6170.00	6170.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Carriage of materials and fixing charges	L.S.	8.06	2.27	18.30	
	TOTAL				6188.30	W
	Add 1 % Water charges on “W”				61.88	
	TOTAL				6250.18	X
	Add GST on “X” (multiplying factor 0.2127)				1329.41	
	TOTAL				7579.59	Y
	Add 15% CPOH on “Y”				1136.94	
	TOTAL				8716.53	Z
	Add Cess @ 1% on “Z”				87.17	
	Cost of one no.				8803.70	
	Say				8803.70	

18.85 Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Exposed on wall

18.85.1 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	10.00	155.00	1550.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				46.50	
	3xP / 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	Add 2% for special T&P and sundries etc. on P				31.00	
	2 xP / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				2954.03	W
	Add 1 % Water charges on “W”				29.54	
	TOTAL				2983.57	X
	Add GST on “X” (multiplying factor 0.2127)				634.61	
	TOTAL				3618.18	Y
	Add 15% CPOH on “Y”				542.73	
	TOTAL				4160.91	Z
	Add Cess @ 1% on “Z”				41.61	
	Cost of 10 metre				4202.52	
	Cost of 1 metre				420.25	
	Say				420.25	

18.85.2 22.22 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	10.00	275.00	2750.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.005	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				82.50	
	3 xP/ 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	Add 2% for special T&P and sundries etc. on P				55.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4214.03	W
	Add 1 % Water charges on “W”				42.14	
	TOTAL				4256.17	X
	Add GST on “X” (multiplying factor 0.2127)				905.29	
	TOTAL				5161.46	Y
	Add 15% CPOH on “Y”				774.22	
	TOTAL				5935.68	Z
	Add Cess @ 1% on “Z”				59.36	
	Cost of 10 metre				5995.04	
	Cost of 1 metre				599.50	
	Say				599.50	

18.85.3 28.58 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8781	SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	10.00	345.00	3450.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.007	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				103.50	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	4.16	2.27	9.44	
	Add 2% for special T&P and sundries etc. on P				69.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4952.27	W
	Add 1 % Water charges on “W”				49.52	
	TOTAL				5001.79	X
	Add GST on “X” (multiplying factor 0.2127)				1063.88	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				6065.67	Y
	Add 15% CPOH on "Y"				909.85	
	TOTAL				6975.52	Z
	Add Cess @ 1% on "Z"				69.76	
	Cost of 10 metre				7045.28	
	Cost of 1 metre				704.53	
	Say				704.55	

18.85.4 34.00 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8782	SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	10.00	485.00	4850.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.010	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				145.50	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	4.16	2.27	9.44	
	Add 2% for special T&P and sundries etc. on P				97.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				6422.27	W
	Add 1 % Water charges on "W"				64.22	
	TOTAL				6486.49	X
	Add GST on "X" (multiplying factor 0.2127)				1379.68	
	TOTAL				7866.17	Y
	Add 15% CPOH on "Y"				1179.93	
	TOTAL				9046.10	Z
	Add Cess @ 1% on "Z"				90.46	
	Cost of 10 metre				9136.56	
	Cost of 1 metre				913.66	
	Say				913.65	

18.85.5 42.70 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8783	SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	10.00	505.00	5050.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.012	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				151.50	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	5.33	2.27	12.10	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 2% for special T&P and sundries etc. on P				101.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				6634.93	W
	Add 1 % Water charges on “W”				66.35	
	TOTAL				6701.28	X
	Add GST on “X” (multiplying factor 0.2127)				1425.36	
	TOTAL				8126.64	Y
	Add 15% CPOH on “Y”				1219.00	
	TOTAL				9345.64	Z
	Add Cess @ 1% on “Z”				93.46	
	Cost of 10 metre				9439.10	
	Cost of 1 metre				943.91	
	Say				943.90	

18.85.6 48.60 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8701	SS pipe 304 grades with press fit technology as per JIS 3448 standard 48.60 mm outer dia	metre	10.00	678.00	6780.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.014	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				203.40	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	5.33	2.27	12.10	
	Add 2% for special T&P and sundries etc. on P				135.60	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				8451.43	W
	Add 1 % Water charges on “W”				84.51	
	TOTAL				8535.94	X
	Add GST on “X” (multiplying factor 0.2127)				1815.59	
	TOTAL				10351.53	Y
	Add 15% CPOH on “Y”				1552.73	
	TOTAL				11904.26	Z
	Add Cess @ 1% on “Z”				119.04	
	Cost of 10 metre				12023.30	
	Cost of 1 metre				1202.33	
	Say				1202.35	

18.85A Providing and fixing Stainless Steel pipe and fitting of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)
Internal work - Exposed on wall

18.85A.1 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3862	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 15 mm outer dia	metre	10.00	345.00	3450.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				103.50	
	3xP / 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	Add 2% for special T&P and sundries etc. on P				69.00	
	2 xP / 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4949.03	W
	Add 1 % Water charges on “W”				49.49	
	TOTAL				4998.52	X
	Add GST on “X” (multiplying factor 0.2127)				1063.19	
	TOTAL				6061.71	Y
	Add 15% CPOH on “Y”				909.26	
	TOTAL				6970.97	Z
	Add Cess @ 1% on “Z”				69.71	
	Cost of 10 metre				7040.68	
	Cost of 1 metre				704.07	
	Say				704.05	

18.85A.2 22 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3863	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 22 mm outer dia	metre	10.00	560.00	5600.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.006	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				168.00	
	3 xP/ 100					
9999	Cement, sand and grit	L.S.	2.73	2.27	6.20	
	Add 2% for special T&P and sundries etc. on P				112.00	
	2xP/ 100					
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				7206.53	W
	Add 1 % Water charges on “W”				72.07	
	TOTAL				7278.60	X
	Add GST on “X” (multiplying factor 0.2127)				1548.16	
	TOTAL				8826.76	Y
	Add 15% CPOH on “Y”				1324.01	
	TOTAL				10150.77	Z
	Add Cess @ 1% on “Z”				101.51	
	Cost of 10 metre				10252.28	
	Cost of 1 metre				1025.23	
	Say				1025.25	

18.85A.3 28 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3864	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 28 mm outer dia	metre	10.00	725.00	7250.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.008	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				217.50	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	4.16	2.27	9.44	
	Add 2% for special T&P and sundries etc. on P				145.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				8942.27	W
	Add 1 % Water charges on “W”				89.42	
	TOTAL				9031.69	X
	Add GST on “X” (multiplying factor 0.2127)				1921.04	
	TOTAL				10952.73	Y
	Add 15% CPOH on “Y”				1642.91	
	TOTAL				12595.64	Z
	Add Cess @ 1% on “Z”				125.96	
	Cost of 10 metre				12721.60	
	Cost of 1 metre				1272.16	
	Say				1272.15	

18.85A.4 35 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3865	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 35 mm outer dia	metre	10.00	1055.00	10550.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.012	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				316.50	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	4.16	2.27	9.44	
	Add 2% for special T&P and sundries etc. on P				211.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				12407.27	W
	Add 1 % Water charges on “W”				124.07	
	TOTAL				12531.34	X
	Add GST on “X” (multiplying factor 0.2127)				2665.42	
	TOTAL				15196.76	Y
	Add 15% CPOH on “Y”				2279.51	
	TOTAL				17476.27	Z
	Add Cess @ 1% on “Z”				174.76	
	Cost of 10 metre				17651.03	
	Cost of 1 metre				1765.10	
	Say				1765.10	

18.85A.5 42 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3866	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 42 mm outer dia	metre	10.00	1295.00	12950.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.015	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				388.50	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	5.33	2.27	12.10	
	Add 2% for special T&P and sundries etc. on P				259.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				14929.93	W
	Add 1 % Water charges on “W”				149.30	
	TOTAL				15079.23	X
	Add GST on “X” (multiplying factor 0.2127)				3207.35	
	TOTAL				18286.58	Y
	Add 15% CPOH on “Y”				2742.99	
	TOTAL				21029.57	Z
	Add Cess @ 1% on “Z”				210.30	
	Cost of 10 metre				21239.87	
	Cost of 1 metre				2123.99	
	Say				2124.00	

18.85A.6 54 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3867	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 54 mm outer dia	metre	10.00	1680.00	16800.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.020	0.00	0.00	
	Add 3% for pipe inserted into fitting and wastage etc. on P				504.00	
	3xP/ 100					
9999	Cement, sand and grit	L.S.	5.33	2.27	12.10	
	Add 2% for special T&P and sundries etc. on P				336.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				18972.43	W
	Add 1 % Water charges on “W”				189.72	
	TOTAL				19162.15	X
	Add GST on “X” (multiplying factor 0.2127)				4075.79	
	TOTAL				23237.94	Y
	Add 15% CPOH on “Y”				3485.69	
	TOTAL				26723.63	Z
	Add Cess @ 1% on “Z”				267.24	
	Cost of 10 metre				26990.87	
	Cost of 1 metre				2699.09	
	Say				2699.10	

18.86 Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Concealed Pipe

18.86.1 15.88 mm outer dia Pipe.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	10.00	155.00	1550.00	P
	Add 3% for pipe inserted into fitting and wastage etc. on P				46.50	
	3xP/ 100					
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003	0.00	0.00	
	Making chases upto 7.5x7.5 cm.in walls and making good the same					
18.78	Rate as per Item No.18.78 of SH:WATER SUPPLY	metre	10.00	202.90	2029.00	A
	Add 2% for special T&P and sundries etc. on P				31.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				4976.83	W
	Add 1 % Water charges on “W-A”				29.48	
	TOTAL				5006.31	X
	Add GST on “X-A” (multiplying factor 0.2127)				633.27	
	TOTAL				5639.58	Y
	Add 15% CPOH on “Y-A”				541.59	
	TOTAL				6181.17	Z
	Add Cess @ 1% on “Z-A”				41.52	
	Cost of 10 metre				6222.69	
	Cost of 1 metre				622.27	
	Say				622.25	

18.86.2 22.22 mm Outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	10.00	275.00	2750.00	P
	Add 3% for pipe inserted into fitting and wastage etc. on P				82.50	
	3xP/ 100					
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.005	0.00	0.00	
	Making chases upto 7.5x7.5 cm.in walls and making good the same					
18.78	Rate as per Item No.18.78 of SH: WATER SUPPLY	metre	10.00	202.90	2029.00	A
	Add 2% for special T&P and sundries etc. on P				55.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				6236.83	W
	Add 1 % Water charges on “W-A”				42.08	
	TOTAL				6278.91	X
	Add GST on “X-A” (multiplying factor 0.2127)				903.96	
	TOTAL				7182.87	Y
	Add 15% CPOH on “Y-A”				773.08	
	TOTAL				7955.95	Z
	Add Cess @ 1% on “Z-A”				59.27	
	Cost of 10 metre				8015.22	
	Cost of 1 metre				801.52	
	Say				801.50	

18.86A Providing and fixing Stainless Steel pipe and fitting of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Concealed Pipe

18.86A.1 15 mm outer dia Pipe.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3862	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 15 mm outer dia	metre	10.00	345.00	3450.00	P
	Add 3% for pipe inserted into fitting and wastage etc. on P			.	103.50	
	3xP/ 100					
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003	0.00	0.00	
	Making chases upto 7.5x7.5 cm.in walls and making good the same					
18.78	Rate as per Item No.18.78 of SH:WATER SUPPLY	metre	10.00	202.90	2029.00	A
	Add 2% for special T&P and sundries etc. on P				69.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				6971.83	W
	Add 1 % Water charges on “W-A”				49.43	
	TOTAL				7021.26	X
	Add GST on “X-A” (multiplying factor 0.2127)				1061.85	
	TOTAL				8083.11	Y
	Add 15% CPOH on “Y-A”				908.12	
	TOTAL				8991.23	Z
	Add Cess @ 1% on “Z-A”				69.62	
	Cost of 10 metre				9060.85	
	Cost of 1 metre				906.09	
	Say				906.10	

18.86A.2 22 mm Outer dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3863	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 22 mm outer dia	metre	10.00	560.00	5600.00	P
	Add 3% for pipe inserted into fitting and wastage etc. on P				168.00	
	3xP/ 100					
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.006	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Making chases upto 7.5x7.5 cm.in walls and making good the same					
18.78	Rate as per Item No.18.78 of SH: WATER SUPPLY	metre	10.00	202.90	2029.00	A
	Add 2% for special T&P and sundries etc. on P				112.00	
	2xP/ 100					
	LABOUR					
0116	Fitter (grade 1)	day	0.33	897.00	296.01	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	816.00	538.56	
0114	Beldar	day	0.66	736.00	485.76	
	TOTAL				9229.33	W
	Add 1 % Water charges on “W-A”				72.00	
	TOTAL				9301.33	X
	Add GST on “X-A” (multiplying factor 0.2127)				1546.82	
	TOTAL				10848.15	Y
	Add 15% CPOH on “Y-A”				1322.87	
	TOTAL				12171.02	Z
	Add Cess @ 1% on “Z-A”				101.42	
	Cost of 10 metre				12272.44	
	Cost of 1 metre				1227.24	
	Say				1227.25	

18.87 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Coupling/Socket

18.87.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8702	Coupling/Socket fittings for 15.88 mm outer dia SS pipe	each	1.00	66.00	66.00	
	TOTAL				66.00	W
	Add 1 % Water charges on “W”				0.66	
	TOTAL				66.66	X
	Add GST on “X” (multiplying factor 0.2127)				14.18	
	TOTAL				80.84	Y
	Add 15% CPOH on “Y”				12.13	
	TOTAL				92.97	Z
	Add Cess @ 1% on “Z”				0.93	
	Cost of 1 no.				93.90	
	Say				93.90	

18.87.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8786	Coupling/Socket fittings for 22.22 mm outer dia SS pipe	each	1.00	80.00	80.00	
	TOTAL				80.00	W
	Add 1 % Water charges on “W”				0.80	
	TOTAL				80.80	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				17.19	
	TOTAL				97.99	Y
	Add 15% CPOH on “Y”				14.70	
	TOTAL				112.69	Z
	Add Cess @ 1% on “Z”				1.13	
	Cost of 1 no.				113.82	
	Say				113.80	

18.87.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8787	Coupling/Socket fittings for 28.58 mm outer dia SS pipe	each	1.00	110.00	110.00	
	TOTAL				110.00	W
	Add 1 % Water charges on “W”				1.10	
	TOTAL				111.10	X
	Add GST on “X” (multiplying factor 0.2127)				23.63	
	TOTAL				134.73	Y
	Add 15% CPOH on “Y”				20.21	
	TOTAL				154.94	Z
	Add Cess @ 1% on “Z”				1.55	
	Cost of 1 no.				156.49	
	Say				156.50	

18.87.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8788	Coupling/Socket fittings for 34.00 mm outer dia SS pipe	each	1.00	150.00	150.00	
	TOTAL				150.00	W
	Add 1 % Water charges on “W”				1.50	
	TOTAL				151.50	X
	Add GST on “X” (multiplying factor 0.2127)				32.22	
	TOTAL				183.72	Y
	Add 15% CPOH on “Y”				27.56	
	TOTAL				211.28	Z
	Add Cess @ 1% on “Z”				2.11	
	Cost of 1 no.				213.39	
	Say				213.40	

18.87.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8789	Coupling/Socket fittings for 42.70 mm outer dia SS pipe	each	1.00	180.00	180.00	
	TOTAL				180.00	W
	Add 1 % Water charges on “W”				1.80	
	TOTAL				181.80	X
	Add GST on “X” (multiplying factor 0.2127)				38.67	
	TOTAL				220.47	Y
	Add 15% CPOH on “Y”				33.07	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				253.54	Z
	Add Cess @ 1% on “Z”				2.54	
	Cost of 1 no.				256.08	
	Say				256.10	

18.87.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8790	Coupling/Socket fittings for 48.60 mm outer dia SS pipe	each	1.00	205.00	205.00	
	TOTAL				205.00	W
	Add 1 % Water charges on “W”				2.05	
	TOTAL				207.05	X
	Add GST on “X” (multiplying factor 0.2127)				44.04	
	TOTAL				251.09	Y
	Add 15% CPOH on “Y”				37.66	
	TOTAL				288.75	Z
	Add Cess @ 1% on “Z”				2.89	
	Cost of 1 no.				291.64	
	Say				291.65	

18.87A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Coupling/Socket

18.87A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3868	Coupling/Socket fittings for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	240.00	240.00	
	TOTAL				240.00	W
	Add 1 % Water charges on “W”				2.40	
	TOTAL				242.40	X
	Add GST on “X” (multiplying factor 0.2127)				51.56	
	TOTAL				293.96	Y
	Add 15% CPOH on “Y”				44.09	
	TOTAL				338.05	Z
	Add Cess @ 1% on “Z”				3.38	
	Cost of 1 no.				341.43	
	Say				341.45	

18.87A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3869	Coupling/Socket fittings for 22 mm outer dia SS pipe of grade 316 L as per IS 6911:2017 and conforming to EN-10312	each	1.00	300.00	300.00	
	TOTAL				300.00	W
	Add 1 % Water charges on “W”				3.00	
	TOTAL				303.00	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				64.45	
	TOTAL				367.45	Y
	Add 15% CPOH on “Y”				55.12	
	TOTAL				422.57	Z
	Add Cess @ 1% on “Z”				4.23	
	Cost of 1 no.				426.80	
	Say				426.80	

18.87A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3870	Coupling/Socket fittings for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	350.00	350.00	
	TOTAL				350.00	W
	Add 1 % Water charges on “W”				3.50	
	TOTAL				353.50	X
	Add GST on “X” (multiplying factor 0.2127)				75.19	
	TOTAL				428.69	Y
	Add 15% CPOH on “Y”				64.30	
	TOTAL				492.99	Z
	Add Cess @ 1% on “Z”				4.93	
	Cost of 1 no.				497.92	
	Say				497.90	

18.87A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3871	Coupling/Socket fittings for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	440.00	440.00	
	TOTAL				440.00	W
	Add 1 % Water charges on “W”				4.40	
	TOTAL				444.40	X
	Add GST on “X” (multiplying factor 0.2127)				94.52	
	TOTAL				538.92	Y
	Add 15% CPOH on “Y”				80.84	
	TOTAL				619.76	Z
	Add Cess @ 1% on “Z”				6.20	
	Cost of 1 no.				625.96	
	Say				625.95	

18.87A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3872	Coupling/Socket fittings for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	595.00	595.00	
	TOTAL				595.00	W
	Add 1 % Water charges on “W”				5.95	
	TOTAL				600.95	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				127.82	
	TOTAL				728.77	Y
	Add 15% CPOH on "Y"				109.32	
	TOTAL				838.09	Z
	Add Cess @ 1% on "Z"				8.38	
	Cost of 1 no.				846.47	
	Say				846.45	

18.87A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3873	Coupling/Socket fittings for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	715.00	715.00	
	TOTAL				715.00	W
	Add 1 % Water charges on "W"				7.15	
	TOTAL				722.15	X
	Add GST on "X" (multiplying factor 0.2127)				153.60	
	TOTAL				875.75	Y
	Add 15% CPOH on "Y"				131.36	
	TOTAL				1007.11	Z
	Add Cess @ 1% on "Z"				10.07	
	Cost of 1 no.				1017.18	
	Say				1017.20	

18.88 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per dirction of Engineer-in-charge.

Reducer

18.88.1 For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8791	Reducer for 22.22 mm X 15.88 mm outer Dia SS pipe	each	1.00	98.00	98.00	
	TOTAL				98.00	W
	Add 1 % Water charges on "W"				0.98	
	TOTAL				98.98	X
	Add GST on "X" (multiplying factor 0.2127)				21.05	
	TOTAL				120.03	Y
	Add 15% CPOH on "Y"				18.00	
	TOTAL				138.03	Z
	Add Cess @ 1% on "Z"				1.38	
	Cost of 1 no.				139.41	
	Say				139.40	

18.88.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8792	Reducer for 28.58 mm X 15.88 mm outer Dia SS pipe	each	1.00	131.00	131.00	
	TOTAL				131.00	W
	Add 1 % Water charges on “W”				1.31	
	TOTAL				132.31	X
	Add GST on “X” (multiplying factor 0.2127)				28.14	
	TOTAL				160.45	Y
	Add 15% CPOH on “Y”				24.07	
	TOTAL				184.52	Z
	Add Cess @ 1% on “Z”				1.85	
	Cost of 1 no.				186.37	
	Say				186.35	

18.88.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8793	Reducer for 28.58 mm X 22.22 mm outer Dia SS pipe	each	1.00	133.00	133.00	
	TOTAL				133.00	W
	Add 1 % Water charges on “W”				1.33	
	TOTAL				134.33	X
	Add GST on “X” (multiplying factor 0.2127)				28.57	
	TOTAL				162.90	Y
	Add 15% CPOH on “Y”				24.44	
	TOTAL				187.34	Z
	Add Cess @ 1% on “Z”				1.87	
	Cost of 1 no.				189.21	
	Say				189.20	

18.88.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8794	Reducer for 34.00 mm X 15.88 mm outer Dia SS pipe	each	1.00	220.00	220.00	
	TOTAL				220.00	W
	Add 1 % Water charges on “W”				2.20	
	TOTAL				222.20	X
	Add GST on “X” (multiplying factor 0.2127)				47.26	
	TOTAL				269.46	Y
	Add 15% CPOH on “Y”				40.42	
	TOTAL				309.88	Z
	Add Cess @ 1% on “Z”				3.10	
	Cost of 1 no.				312.98	
	Say				313.00	

18.88.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8795	Reducer for 34.00 mm X 22.22 mm outer Dia SS pipe	each	1.00	230.00	230.00	
	TOTAL				230.00	W
	Add 1 % Water charges on “W”				2.30	
	TOTAL				232.30	X
	Add GST on “X” (multiplying factor 0.2127)				49.41	
	TOTAL				281.71	Y
	Add 15% CPOH on “Y”				42.26	
	TOTAL				323.97	Z
	Add Cess @ 1% on “Z”				3.24	
	Cost of 1 no.				327.21	
	Say				327.20	

18.88.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8796	Reducer for 34.00 mm X 28.58 mm outer Dia SS pipe	each	1.00	230.00	230.00	
	TOTAL				230.00	W
	Add 1 % Water charges on “W”				2.30	
	TOTAL				232.30	X
	Add GST on “X” (multiplying factor 0.2127)				49.41	
	TOTAL				281.71	Y
	Add 15% CPOH on “Y”				42.26	
	TOTAL				323.97	Z
	Add Cess @ 1% on “Z”				3.24	
	Cost of 1 no.				327.21	
	Say				327.20	

18.88.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8797	Reducer for 42.70 mm X 15.88 mm outer Dia SS pipe	each	1.00	364.00	364.00	
	TOTAL				364.00	W
	Add 1 % Water charges on “W”				3.64	
	TOTAL				367.64	X
	Add GST on “X” (multiplying factor 0.2127)				78.20	
	TOTAL				445.84	Y
	Add 15% CPOH on “Y”				66.88	
	TOTAL				512.72	Z
	Add Cess @ 1% on “Z”				5.13	
	Cost of 1 no.				517.85	
	Say				517.85	

18.88.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8798	Reducer for 42.70 mm X 22.22 mm outer Dia SS pipe	each	1.00	372.00	372.00	
	TOTAL				372.00	W
	Add 1 % Water charges on “W”				3.72	
	TOTAL				375.72	X
	Add GST on “X” (multiplying factor 0.2127)				79.92	
	TOTAL				455.64	Y
	Add 15% CPOH on “Y”				68.35	
	TOTAL				523.99	Z
	Add Cess @ 1% on “Z”				5.24	
	Cost of 1 no.				529.23	
	Say				529.25	

18.88.9 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8799	Reducer for 42.70 mm X 28.58 mm outer Dia SS pipe	each	1.00	426.00	426.00	
	TOTAL				426.00	W
	Add 1 % Water charges on “W”				4.26	
	TOTAL				430.26	X
	Add GST on “X” (multiplying factor 0.2127)				91.52	
	TOTAL				521.78	Y
	Add 15% CPOH on “Y”				78.27	
	TOTAL				600.05	Z
	Add Cess @ 1% on “Z”				6.00	
	Cost of 1 no.				606.05	
	Say				606.05	

18.88.10 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8800	Reducer for 42.70 mm X 34.00 mm outer Dia SS pipe	each	1.00	452.00	452.00	
	TOTAL				452.00	W
	Add 1 % Water charges on “W”				4.52	
	TOTAL				456.52	X
	Add GST on “X” (multiplying factor 0.2127)				97.10	
	TOTAL				553.62	Y
	Add 15% CPOH on “Y”				83.04	
	TOTAL				636.66	Z
	Add Cess @ 1% on “Z”				6.37	
	Cost of 1 no.				643.03	
	Say				643.05	

18.88.11 For 48.60 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8801	Reducer for 48.60 mm X 15.88 mm outer Dia SS pipe	each	1.00	452.00	452.00	
	TOTAL				452.00	W
	Add 1 % Water charges on “W”				4.52	
	TOTAL				456.52	X
	Add GST on “X” (multiplying factor 0.2127)				97.10	
	TOTAL				553.62	Y
	Add 15% CPOH on “Y”				83.04	
	TOTAL				636.66	Z
	Add Cess @ 1% on “Z”				6.37	
	Cost of 1 no.				643.03	
	Say				643.05	

18.88.12 For 48.60 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8802	Reducer for 48.60 mm X 22.22 mm outer Dia SS pipe	each	1.00	452.00	452.00	
	TOTAL				452.00	W
	Add 1 % Water charges on “W”				4.52	
	TOTAL				456.52	X
	Add GST on “X” (multiplying factor 0.2127)				97.10	
	TOTAL				553.62	Y
	Add 15% CPOH on “Y”				83.04	
	TOTAL				636.66	Z
	Add Cess @ 1% on “Z”				6.37	
	Cost of 1 no.				643.03	
	Say				643.05	

18.88.13 For 48.60 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8803	Reducer for 48.60 mm X 28.58 mm outer Dia SS pipe	each	1.00	452.00	452.00	
	TOTAL				452.00	W
	Add 1 % Water charges on “W”				4.52	
	TOTAL				456.52	X
	Add GST on “X” (multiplying factor 0.2127)				97.10	
	TOTAL				553.62	Y
	Add 15% CPOH on “Y”				83.04	
	TOTAL				636.66	Z
	Add Cess @ 1% on “Z”				6.37	
	Cost of 1 no.				643.03	
	Say				643.05	

18.88.14 For 48.60 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8804	Reducer for 48.60 mm X 34.00 mm outer Dia SS pipe	each	1.00	467.00	467.00	
	TOTAL				467.00	W
	Add 1 % Water charges on “W”				4.67	
	TOTAL				471.67	X
	Add GST on “X” (multiplying factor 0.2127)				100.32	
	TOTAL				571.99	Y
	Add 15% CPOH on “Y”				85.80	
	TOTAL				657.79	Z
	Add Cess @ 1% on “Z”				6.58	
	Cost of 1 no.				664.37	
	Say				664.35	

18.88.15 For 48.60 mm x 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8805	Reducer for48.60 mm X 42.70 mm outer Dia SS pipe	each	1.00	469.00	469.00	
	TOTAL				469.00	W
	Add 1 % Water charges on “W”				4.69	
	TOTAL				473.69	X
	Add GST on “X” (multiplying factor 0.2127)				100.75	
	TOTAL				574.44	Y
	Add 15% CPOH on “Y”				86.17	
	TOTAL				660.61	Z
	Add Cess @ 1% on “Z”				6.61	
	Cost of 1 no.				667.22	
	Say				667.20	

18.88A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per dirction of Engineer-in-charge.

Reducer

18.88A.1 For 22mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3874	Reducer for 22mm x 15 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	285.00	285.00	
	TOTAL				285.00	W
	Add 1 % Water charges on “W”				2.85	
	TOTAL				287.85	X
	Add GST on “X” (multiplying factor 0.2127)				61.23	
	TOTAL				349.08	Y
	Add 15% CPOH on “Y”				52.36	
	TOTAL				401.44	Z
	Add Cess @ 1% on “Z”				4.01	
	Cost of 1 no.				405.45	
	Say				405.45	

18.88A.2 For 28 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3875	Reducer for 28 mm X 15 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	345.00	345.00	
	TOTAL				345.00	W
	Add 1 % Water charges on “W”				3.45	
	TOTAL				348.45	X
	Add GST on “X” (multiplying factor 0.2127)				74.12	
	TOTAL				422.57	Y
	Add 15% CPOH on “Y”				63.39	
	TOTAL				485.96	Z
	Add Cess @ 1% on “Z”				4.86	
	Cost of 1 no.				490.82	
	Say				490.80	

18.88A.3 For 28 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3876	Reducer for 28 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	420.00	420.00	
	TOTAL				420.00	W
	Add 1 % Water charges on “W”				4.20	
	TOTAL				424.20	X
	Add GST on “X” (multiplying factor 0.2127)				90.23	
	TOTAL				514.43	Y
	Add 15% CPOH on “Y”				77.16	
	TOTAL				591.59	Z
	Add Cess @ 1% on “Z”				5.92	
	Cost of 1 no.				597.51	
	Say				597.50	

18.88A.4 For 35 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3877	Reducer for 35 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	425.00	425.00	
	TOTAL				425.00	W
	Add 1 % Water charges on “W”				4.25	
	TOTAL				429.25	X
	Add GST on “X” (multiplying factor 0.2127)				91.30	
	TOTAL				520.55	Y
	Add 15% CPOH on “Y”				78.08	
	TOTAL				598.63	Z
	Add Cess @ 1% on “Z”				5.99	
	Cost of 1 no.				604.62	
	Say				604.60	

18.88A.5 For 35 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3878	Reducer for 35 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	525.00	525.00	
	TOTAL				525.00	W
	Add 1 % Water charges on “W”				5.25	
	TOTAL				530.25	X
	Add GST on “X” (multiplying factor 0.2127)				112.78	
	TOTAL				643.03	Y
	Add 15% CPOH on “Y”				96.45	
	TOTAL				739.48	Z
	Add Cess @ 1% on “Z”				7.39	
	Cost of 1 no.				746.87	
	Say				746.85	

18.88A.6 For 42 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3879	Reducer for 42 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	675.00	675.00	
	TOTAL				675.00	W
	Add 1 % Water charges on “W”				6.75	
	TOTAL				681.75	X
	Add GST on “X” (multiplying factor 0.2127)				145.01	
	TOTAL				826.76	Y
	Add 15% CPOH on “Y”				124.01	
	TOTAL				950.77	Z
	Add Cess @ 1% on “Z”				9.51	
	Cost of 1 no.				960.28	
	Say				960.30	

18.88A.7 For 42 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3880	Reducer for 42 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	770.00	770.00	
	TOTAL				770.00	W
	Add 1 % Water charges on “W”				7.70	
	TOTAL				777.70	X
	Add GST on “X” (multiplying factor 0.2127)				165.42	
	TOTAL				943.12	Y
	Add 15% CPOH on “Y”				141.47	
	TOTAL				1084.59	Z
	Add Cess @ 1% on “Z”				10.85	
	Cost of 1 no.				1095.44	
	Say				1095.45	

18.88A.8 For 42 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3881	Reducer for 42 mm x 35 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	805.00	805.00	
	TOTAL				805.00	W
	Add 1 % Water charges on “W”				8.05	
	TOTAL				813.05	X
	Add GST on “X” (multiplying factor 0.2127)				172.94	
	TOTAL				985.99	Y
	Add 15% CPOH on “Y”				147.90	
	TOTAL				1133.89	Z
	Add Cess @ 1% on “Z”				11.34	
	Cost of 1 no.				1145.23	
	Say				1145.25	

18.88A.9 For 54 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3882	Reducer for 54 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	935.00	935.00	
	TOTAL				935.00	W
	Add 1 % Water charges on “W”				9.35	
	TOTAL				944.35	X
	Add GST on “X” (multiplying factor 0.2127)				200.86	
	TOTAL				1145.21	Y
	Add 15% CPOH on “Y”				171.78	
	TOTAL				1316.99	Z
	Add Cess @ 1% on “Z”				13.17	
	Cost of 1 no.				1330.16	
	Say				1330.15	

18.88A.10 For 54 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3883	Reducer for 54 mm x 35 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1105.00	1105.00	
	TOTAL				1105.00	W
	Add 1 % Water charges on “W”				11.05	
	TOTAL				1116.05	X
	Add GST on “X” (multiplying factor 0.2127)				237.38	
	TOTAL				1353.43	Y
	Add 15% CPOH on “Y”				203.01	
	TOTAL				1556.44	Z
	Add Cess @ 1% on “Z”				15.56	
	Cost of 1 no.				1572.00	
	Say				1572.00	

18.88A.11 For 54 mm x 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3884	Reducer for 54 mm x 42 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1150.00	1150.00	
	TOTAL				1150.00	W
	Add 1 % Water charges on "W"				11.50	
	TOTAL				1161.50	X
	Add GST on "X" (multiplying factor 0.2127)				247.05	
	TOTAL				1408.55	Y
	Add 15% CPOH on "Y"				211.28	
	TOTAL				1619.83	Z
	Add Cess @ 1% on "Z"				16.20	
	Cost of 1 no.				1636.03	
	Say				1636.05	

18.89 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Slip Coupling/ Socket

18.89.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8806	Slip Coupling / Socket 15.88 mm outer dia SS pipe	each	1.00	65.00	65.00	
	TOTAL				65.00	W
	Add 1 % Water charges on "W"				0.65	
	TOTAL				65.65	X
	Add GST on "X" (multiplying factor 0.2127)				13.96	
	TOTAL				79.61	Y
	Add 15% CPOH on "Y"				11.94	
	TOTAL				91.55	Z
	Add Cess @ 1% on "Z"				0.92	
	Cost of 1 no.				92.47	
	Say				92.45	

18.89.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8807	Slip Coupling / Socket 22.22 mm outer dia SS pipe	each	1.00	80.00	80.00	
	TOTAL				80.00	W
	Add 1 % Water charges on "W"				0.80	
	TOTAL				80.80	X
	Add GST on "X" (multiplying factor 0.2127)				17.19	
	TOTAL				97.99	Y
	Add 15% CPOH on "Y"				14.70	
	TOTAL				112.69	Z
	Add Cess @ 1% on "Z"				1.13	
	Cost of 1 no.				113.82	
	Say				113.80	

18.89.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8808	Slip Coupling / Socket 28.58 mm outer dia SS pipe	each	1.00	110.00	110.00	
	TOTAL				110.00	W
	Add 1 % Water charges on “W”				1.10	
	TOTAL				111.10	X
	Add GST on “X” (multiplying factor 0.2127)				23.63	
	TOTAL				134.73	Y
	Add 15% CPOH on “Y”				20.21	
	TOTAL				154.94	Z
	Add Cess @ 1% on “Z”				1.55	
	Cost of 1 no.				156.49	
	Say				156.50	

18.89.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8809	Slip Coupling / Socket 34.00 mm outer dia SS pipe	each	1.00	155.00	155.00	
	TOTAL				155.00	W
	Add 1 % Water charges on “W”				1.55	
	TOTAL				156.55	X
	Add GST on “X” (multiplying factor 0.2127)				33.30	
	TOTAL				189.85	Y
	Add 15% CPOH on “Y”				28.48	
	TOTAL				218.33	Z
	Add Cess @ 1% on “Z”				2.18	
	Cost of 1 no.				220.51	
	Say				220.50	

18.89.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8810	Slip Coupling / Socket 42.70 mm outer dia SS pipe	each	1.00	180.00	180.00	
	TOTAL				180.00	W
	Add 1 % Water charges on “W”				1.80	
	TOTAL				181.80	X
	Add GST on “X” (multiplying factor 0.2127)				38.67	
	TOTAL				220.47	Y
	Add 15% CPOH on “Y”				33.07	
	TOTAL				253.54	Z
	Add Cess @ 1% on “Z”				2.54	
	Cost of 1 no.				256.08	
	Say				256.10	

18.89.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8811	Slip Coupling / Socket 48.60 mm outer dia SS pipe	each	1.00	195.00	195.00	
	TOTAL				195.00	W
	Add 1 % Water charges on “W”				1.95	
	TOTAL				196.95	X
	Add GST on “X” (multiplying factor 0.2127)				41.89	
	TOTAL				238.84	Y
	Add 15% CPOH on “Y”				35.83	
	TOTAL				274.67	Z
	Add Cess @ 1% on “Z”				2.75	
	Cost of 1 no.				277.42	
	Say				277.40	

18.89A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Sleeve/Slip Coupling/ Socket

18.89A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3885	Sleeve/ Slip Coupling / Socket 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	420.00	420.00	
	TOTAL				420.00	W
	Add 1 % Water charges on “W”				4.20	
	TOTAL				424.20	X
	Add GST on “X” (multiplying factor 0.2127)				90.23	
	TOTAL				514.43	Y
	Add 15% CPOH on “Y”				77.16	
	TOTAL				591.59	Z
	Add Cess @ 1% on “Z”				5.92	
	Cost of 1 no.				597.51	
	Say				597.50	

18.89A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3886	Sleeve/ Slip Coupling / Socket 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	500.00	500.00	
	TOTAL				500.00	W
	Add 1 % Water charges on “W”				5.00	
	TOTAL				505.00	X
	Add GST on “X” (multiplying factor 0.2127)				107.41	
	TOTAL				612.41	Y
	Add 15% CPOH on “Y”				91.86	
	TOTAL				704.27	Z
	Add Cess @ 1% on “Z”				7.04	
	Cost of 1 no.				711.31	
	Say				711.30	

18.89A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3887	Sleeve/ Slip Coupling / Socket 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	580.00	580.00	
	TOTAL				580.00	W
	Add 1 % Water charges on “W”				5.80	
	TOTAL				585.80	X
	Add GST on “X” (multiplying factor 0.2127)				124.60	
	TOTAL				710.40	Y
	Add 15% CPOH on “Y”				106.56	
	TOTAL				816.96	Z
	Add Cess @ 1% on “Z”				8.17	
	Cost of 1 no.				825.13	
	Say				825.15	

18.89A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3888	Sleeve/ Slip Coupling / Socket 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	645.00	645.00	
	TOTAL				645.00	W
	Add 1 % Water charges on “W”				6.45	
	TOTAL				651.45	X
	Add GST on “X” (multiplying factor 0.2127)				138.56	
	TOTAL				790.01	Y
	Add 15% CPOH on “Y”				118.50	
	TOTAL				908.51	Z
	Add Cess @ 1% on “Z”				9.09	
	Cost of 1 no.				917.60	
	Say				917.60	

18.89A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3889	Sleeve/ Slip Coupling / Socket 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	750.00	750.00	
	TOTAL				750.00	W
	Add 1 % Water charges on “W”				7.50	
	TOTAL				757.50	X
	Add GST on “X” (multiplying factor 0.2127)				161.12	
	TOTAL				918.62	Y
	Add 15% CPOH on “Y”				137.79	
	TOTAL				1056.41	Z
	Add Cess @ 1% on “Z”				10.56	
	Cost of 1 no.				1066.97	
	Say				1066.95	

18.89A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3890	Sleeve/ Slip Coupling / Socket 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1065.00	1065.00	
	TOTAL				1065.00	W
	Add 1 % Water charges on “W”				10.65	
	TOTAL				1075.65	X
	Add GST on “X” (multiplying factor 0.2127)				228.79	
	TOTAL				1304.44	Y
	Add 15% CPOH on “Y”				195.67	
	TOTAL				1500.11	Z
	Add Cess @ 1% on “Z”				15.00	
	Cost of 1 no.				1515.11	
	Say				1515.10	

18.90 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Elbow 90°

18.90.1 For 15.88mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8812	Elbow 90° for 15.88 mm outer dia SS pipe	each	1.00	70.00	70.00	
	TOTAL				70.00	W
	Add 1 % Water charges on “W”				0.70	
	TOTAL				70.70	X
	Add GST on “X” (multiplying factor 0.2127)				15.04	
	TOTAL				85.74	Y
	Add 15% CPOH on “Y”				12.86	
	TOTAL				98.60	Z
	Add Cess @ 1% on “Z”				0.99	
	Cost of 1 no.				99.59	
	Say				99.60	

18.90.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8813	Elbow 90° for 22.22 mm outer dia SS pipe	each	1.00	80.00	80.00	
	TOTAL				80.00	W
	Add 1 % Water charges on “W”				0.80	
	TOTAL				80.80	X
	Add GST on “X” (multiplying factor 0.2127)				17.19	
	TOTAL				97.99	Y
	Add 15% CPOH on “Y”				14.70	
	TOTAL				112.69	Z
	Add Cess @ 1% on “Z”				1.13	
	Cost of 1 no.				113.82	
	Say				113.80	

18.90.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8814	Elbow 90° for 28.58 mm outer dia SS pipe	each	1.00	115.00	115.00	
	TOTAL				115.00	W
	Add 1 % Water charges on “W”				1.15	
	TOTAL				116.15	X
	Add GST on “X” (multiplying factor 0.2127)				24.71	
	TOTAL				140.86	Y
	Add 15% CPOH on “Y”				21.13	
	TOTAL				161.99	Z
	Add Cess @ 1% on “Z”				1.62	
	Cost of 1 no.				163.61	
	Say				163.60	

18.90.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8815	Elbow 90° for 34.00 mm outer dia SS pipe	each	1.00	144.00	144.00	
	TOTAL				144.00	W
	Add 1 % Water charges on “W”				1.44	
	TOTAL				145.44	X
	Add GST on “X” (multiplying factor 0.2127)				30.94	
	TOTAL				176.38	Y
	Add 15% CPOH on “Y”				26.46	
	TOTAL				202.84	Z
	Add Cess @ 1% on “Z”				2.03	
	Cost of 1 no.				204.87	
	Say				204.85	

18.90.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8816	Elbow 90° for 42.70 mm outer dia SS pipe	each	1.00	156.00	156.00	
	TOTAL				156.00	W
	Add 1 % Water charges on “W”				1.56	
	TOTAL				157.56	X
	Add GST on “X” (multiplying factor 0.2127)				33.51	
	TOTAL				191.07	Y
	Add 15% CPOH on “Y”				28.66	
	TOTAL				219.73	Z
	Add Cess @ 1% on “Z”				2.20	
	Cost of 1 no.				221.93	
	Say				221.95	

18.90.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8817	Elbow 90° for 48.60 mm outer dia SS pipe	each	1.00	192.00	192.00	
	TOTAL				192.00	W
	Add 1 % Water charges on “W”				1.92	
	TOTAL				193.92	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				41.25	
	TOTAL				235.17	Y
	Add 15% CPOH on “Y”				35.28	
	TOTAL				270.45	Z
	Add Cess @ 1% on “Z”				2.70	
	Cost of 1 no.				273.15	
	Say				273.15	

18.90A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Elbow 90°

18.90A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3891	Elbow 90° for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	340.00	340.00	
	TOTAL				340.00	W
	Add 1 % Water charges on “W”				3.40	
	TOTAL				343.40	X
	Add GST on “X” (multiplying factor 0.2127)				73.04	
	TOTAL				416.44	Y
	Add 15% CPOH on “Y”				62.47	
	TOTAL				478.91	Z
	Add Cess @ 1% on “Z”				4.79	
	Cost of 1 no.				483.70	
	Say				483.70	

18.90A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3892	Elbow 90° for 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	480.00	480.00	
	TOTAL				480.00	W
	Add 1 % Water charges on “W”				4.80	
	TOTAL				484.80	X
	Add GST on “X” (multiplying factor 0.2127)				103.12	
	TOTAL				587.92	Y
	Add 15% CPOH on “Y”				88.19	
	TOTAL				676.11	Z
	Add Cess @ 1% on “Z”				6.76	
	Cost of 1 no.				682.87	
	Say				682.85	

18.90A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3893	Elbow 90° for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	640.00	640.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				640.00	W
	Add 1 % Water charges on “W”				6.40	
	TOTAL				646.40	X
	Add GST on “X” (multiplying factor 0.2127)				137.49	
	TOTAL				783.89	Y
	Add 15% CPOH on “Y”				117.58	
	TOTAL				901.47	Z
	Add Cess @ 1% on “Z”				9.01	
	Cost of 1 no.				910.48	
	Say				910.50	

18.90A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3894	Elbow 90° for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1050.00	1050.00	
	TOTAL				1050.00	W
	Add 1 % Water charges on “W”				10.50	
	TOTAL				1060.50	X
	Add GST on “X” (multiplying factor 0.2127)				225.57	
	TOTAL				1286.07	Y
	Add 15% CPOH on “Y”				192.91	
	TOTAL				1478.98	Z
	Add Cess @ 1% on “Z”				14.79	
	Cost of 1 no.				1493.77	
	Say				1493.75	

18.90A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3895	Elbow 90° for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1700.00	1700.00	
	TOTAL				1700.00	W
	Add 1 % Water charges on “W”				17.00	
	TOTAL				1717.00	X
	Add GST on “X” (multiplying factor 0.2127)				365.21	
	TOTAL				2082.21	Y
	Add 15% CPOH on “Y”				312.33	
	TOTAL				2394.54	Z
	Add Cess @ 1% on “Z”				23.95	
	Cost of 1 no.				2418.49	
	Say				2418.50	

18.90A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3896	Elbow 90° for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2250.00	2250.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2250.00	W
	Add 1 % Water charges on “W”				22.50	
	TOTAL				2272.50	X
	Add GST on “X” (multiplying factor 0.2127)				483.36	
	TOTAL				2755.86	Y
	Add 15% CPOH on “Y”				413.38	
	TOTAL				3169.24	Z
	Add Cess @ 1% on “Z”				31.69	
	Cost of 1 no.				3200.93	
	Say				3200.95	

18.91 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Elbow 90°

18.91.1 For22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8818	Reducing Elbow 90° for 22.22 mm X 15.88 mm outer dia SS pipe	each	1.00	157.00	157.00	
	TOTAL				157.00	W
	Add 1 % Water charges on “W”				1.57	
	TOTAL				158.57	X
	Add GST on “X” (multiplying factor 0.2127)				33.73	
	TOTAL				192.30	Y
	Add 15% CPOH on “Y”				28.85	
	TOTAL				221.15	Z
	Add Cess @ 1% on “Z”				2.21	
	Cost of 1 no.				223.36	
	Say				223.35	

18.91.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8819	Reducing Elbow 90° for 28.58 mm X 15.88 mm outer dia SS pipe	each	1.00	214.00	214.00	
	TOTAL				214.00	W
	Add 1 % Water charges on “W”				2.14	
	TOTAL				216.14	X
	Add GST on “X” (multiplying factor 0.2127)				45.97	
	TOTAL				262.11	Y
	Add 15% CPOH on “Y”				39.32	
	TOTAL				301.43	Z
	Add Cess @ 1% on “Z”				3.01	
	Cost of 1 no.				304.44	
	Say				304.45	

18.91.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8820	Reducing Elbow 90° for 28.58 mm X22.22 mm outer dia SS pipe	each	1.00	224.00	224.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				224.00	W
	Add 1 % Water charges on “W”				2.24	
	TOTAL				226.24	X
	Add GST on “X” (multiplying factor 0.2127)				48.12	
	TOTAL				274.36	Y
	Add 15% CPOH on “Y”				41.15	
	TOTAL				315.51	Z
	Add Cess @ 1% on “Z”				3.16	
	Cost of 1 no.				318.67	
	Say				318.65	

18.91.4 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8821	Reducing Elbow 90° for 34.00 mm X 22.22 mm outer dia SS pipe	each	1.00	300.00	300.00	
	TOTAL				300.00	W
	Add 1 % Water charges on “W”				3.00	
	TOTAL				303.00	X
	Add GST on “X” (multiplying factor 0.2127)				64.45	
	TOTAL				367.45	Y
	Add 15% CPOH on “Y”				55.12	
	TOTAL				422.57	Z
	Add Cess @ 1% on “Z”				4.23	
	Cost of 1 no.				426.80	
	Say				426.80	

18.91.5 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8822	Reducing Elbow 90° for 34.00 mm X 28.58 mm outer dia SS pipe	each	1.00	360.00	360.00	
	TOTAL				360.00	W
	Add 1 % Water charges on “W”				3.60	
	TOTAL				363.60	X
	Add GST on “X” (multiplying factor 0.2127)				77.34	
	TOTAL				440.94	Y
	Add 15% CPOH on “Y”				66.14	
	TOTAL				507.08	Z
	Add Cess @ 1% on “Z”				5.07	
	Cost of 1 no.				512.15	
	Say				512.15	

18.91.6 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8823	Reducing Elbow 90° for 42.70 mm X 34.00 mm outer dia SS pipe	each	1.00	390.00	390.00	
	TOTAL				390.00	W
	Add 1 % Water charges on “W”				3.90	
	TOTAL				393.90	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				83.78	
	TOTAL				477.68	Y
	Add 15% CPOH on "Y"				71.65	
	TOTAL				549.33	Z
	Add Cess @ 1% on "Z"				5.49	
	Cost of 1 no.				554.82	
	Say				554.80	

18.92 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Equal Tee

18.92.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8824	Equal Tee for 15.88 mm outer dia SS pipe	each	1.00	139.00	139.00	
	TOTAL				139.00	W
	Add 1 % Water charges on "W"				1.39	
	TOTAL				140.39	X
	Add GST on "X" (multiplying factor 0.2127)				29.86	
	TOTAL				170.25	Y
	Add 15% CPOH on "Y"				25.54	
	TOTAL				195.79	Z
	Add Cess @ 1% on "Z"				1.96	
	Cost of 1 no.				197.75	
	Say				197.75	

18.92.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8825	Equal Tee for 22.22 mm outer dia SS pipe	each	1.00	211.00	211.00	
	TOTAL				211.00	W
	Add 1 % Water charges on "W"				2.11	
	TOTAL				213.11	X
	Add GST on "X" (multiplying factor 0.2127)				45.33	
	TOTAL				258.44	Y
	Add 15% CPOH on "Y"				38.77	
	TOTAL				297.21	Z
	Add Cess @ 1% on "Z"				2.97	
	Cost of 1 no.				300.18	
	Say				300.20	

18.92.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8826	Equal Tee for 28.58 mm outer dia SS pipe	each	1.00	328.00	328.00	
	TOTAL				328.00	W
	Add 1 % Water charges on "W"				3.28	
	TOTAL				331.28	X
	Add GST on "X" (multiplying factor 0.2127)				70.46	
	TOTAL				401.74	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on “Y”				60.26	
	TOTAL				462.00	Z
	Add Cess @ 1% on “Z”				4.62	
	Cost of 1 no.				466.62	
	Say				466.60	

18.92.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8827	Equal Tee for 34.00 mm outer dia SS pipe	each	1.00	484.00	484.00	
	TOTAL				484.00	W
	Add 1 % Water charges on “W”				4.84	
	TOTAL				488.84	X
	Add GST on “X” (multiplying factor 0.2127)				103.98	
	TOTAL				592.82	Y
	Add 15% CPOH on “Y”				88.92	
	TOTAL				681.74	Z
	Add Cess @ 1% on “Z”				6.82	
	Cost of 1 no.				688.56	
	Say				688.55	

18.92.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8828	Equal Tee for 42.70 mm outer dia SS pipe	each	1.00	765.00	765.00	
	TOTAL				765.00	W
	Add 1 % Water charges on “W”				7.65	
	TOTAL				772.65	X
	Add GST on “X” (multiplying factor 0.2127)				164.34	
	TOTAL				936.99	Y
	Add 15% CPOH on “Y”				140.55	
	TOTAL				1077.54	Z
	Add Cess @ 1% on “Z”				10.78	
	Cost of 1 no.				1088.32	
	Say				1088.30	

18.92.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8829	Equal Tee for 48.60 mm outer dia SS pipe	each	1.00	1005.00	1005.00	
	TOTAL				1005.00	W
	Add 1 % Water charges on “W”				10.05	
	TOTAL				1015.05	X
	Add GST on “X” (multiplying factor 0.2127)				215.90	
	TOTAL				1230.95	Y
	Add 15% CPOH on “Y”				184.64	
	TOTAL				1415.59	Z
	Add Cess @ 1% on “Z”				14.16	
	Cost of 1 no.				1429.75	
	Say				1429.75	

18.92A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Equal Tee

18.92A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3897	Equal Tee for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	560.00	560.00	
	TOTAL				560.00	W
	Add 1 % Water charges on "W"				5.60	
	TOTAL				565.60	X
	Add GST on "X" (multiplying factor 0.2127)				120.30	
	TOTAL				685.90	Y
	Add 15% CPOH on "Y"				102.89	
	TOTAL				788.79	Z
	Add Cess @ 1% on "Z"				7.89	
	Cost of 1 no.				796.68	
	Say				796.70	

18.92A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3898	Equal Tee for 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	655.00	655.00	
	TOTAL				655.00	W
	Add 1 % Water charges on "W"				6.55	
	TOTAL				661.55	X
	Add GST on "X" (multiplying factor 0.2127)				140.71	
	TOTAL				802.26	Y
	Add 15% CPOH on "Y"				120.34	
	TOTAL				922.60	Z
	Add Cess @ 1% on "Z"				9.23	
	Cost of 1 no.				931.83	
	Say				931.85	

18.92A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3899	Equal Tee for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	805.00	805.00	
	TOTAL				805.00	W
	Add 1 % Water charges on "W"				8.05	
	TOTAL				813.05	X
	Add GST on "X" (multiplying factor 0.2127)				172.94	
	TOTAL				985.99	Y
	Add 15% CPOH on "Y"				147.90	
	TOTAL				1133.89	Z
	Add Cess @ 1% on "Z"				11.34	
	Cost of 1 no.				1145.23	
	Say				1145.25	

18.92A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3900	Equal Tee for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1000.00	1000.00	
	TOTAL				1000.00	W
	Add 1 % Water charges on “W”				10.00	
	TOTAL				1010.00	X
	Add GST on “X” (multiplying factor 0.2127)				214.83	
	TOTAL				1224.83	Y
	Add 15% CPOH on “Y”				183.72	
	TOTAL				1408.55	Z
	Add Cess @ 1% on “Z”				14.09	
	Cost of 1 no.				1422.64	
	Say				1422.65	

18.92A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3901	Equal Tee for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1400.00	1400.00	
	TOTAL				1400.00	W
	Add 1 % Water charges on “W”				14.00	
	TOTAL				1414.00	X
	Add GST on “X” (multiplying factor 0.2127)				300.76	
	TOTAL				1714.76	Y
	Add 15% CPOH on “Y”				257.21	
	TOTAL				1971.97	Z
	Add Cess @ 1% on “Z”				19.72	
	Cost of 1 no.				1991.69	
	Say				1991.70	

18.92A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3902	Equal Tee for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1680.00	1680.00	
	TOTAL				1680.00	W
	Add 1 % Water charges on “W”				16.80	
	TOTAL				1696.80	X
	Add GST on “X” (multiplying factor 0.2127)				360.91	
	TOTAL				2057.71	Y
	Add 15% CPOH on “Y”				308.66	
	TOTAL				2366.37	Z
	Add Cess @ 1% on “Z”				23.66	
	Cost of 1 no.				2390.03	
	Say				2390.05	

18.93 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Tee

18.93.1 For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8830	Reducing Tee for 22.22 mm X 15.88 mm outer dia SS pipe	each	1.00	189.00	189.00	
	TOTAL				189.00	W
	Add 1 % Water charges on "W"				1.89	
	TOTAL				190.89	X
	Add GST on "X" (multiplying factor 0.2127)				40.60	
	TOTAL				231.49	Y
	Add 15% CPOH on "Y"				34.72	
	TOTAL				266.21	Z
	Add Cess @ 1% on "Z"				2.66	
	Cost of 1 no.				268.87	
	Say				268.85	

18.93.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8831	Reducing Tee for 28.58 mm X 15.88 mm outer dia SS pipe	each	1.00	251.00	251.00	
	TOTAL				251.00	W
	Add 1 % Water charges on "W"				2.51	
	TOTAL				253.51	X
	Add GST on "X" (multiplying factor 0.2127)				53.92	
	TOTAL				307.43	Y
	Add 15% CPOH on "Y"				46.11	
	TOTAL				353.54	Z
	Add Cess @ 1% on "Z"				3.54	
	Cost of 1 no.				357.08	
	Say				357.10	

18.93.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8832	Reducing Tee for 28.58 mm X 22.22 mm outer dia SS pipe	each	1.00	255.00	255.00	
	TOTAL				255.00	W
	Add 1 % Water charges on "W"				2.55	
	TOTAL				257.55	X
	Add GST on "X" (multiplying factor 0.2127)				54.78	
	TOTAL				312.33	Y
	Add 15% CPOH on "Y"				46.85	
	TOTAL				359.18	Z
	Add Cess @ 1% on "Z"				3.59	
	Cost of 1 no.				362.77	
	Say				362.75	

18.93.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8833	Reducing Tee for 34.00 mm X 15.88 mm outer dia SS pipe	each	1.00	445.00	445.00	
	TOTAL				445.00	W
	Add 1 % Water charges on “W”				4.45	
	TOTAL				449.45	X
	Add GST on “X” (multiplying factor 0.2127)				95.60	
	TOTAL				545.05	Y
	Add 15% CPOH on “Y”				81.76	
	TOTAL				626.81	Z
	Add Cess @ 1% on “Z”				6.27	
	Cost of 1 no.				633.08	
	Say				633.10	

18.93.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8834	Reducing Tee for 34.00 mm X 22.22 mm outer dia SS pipe	each	1.00	460.00	460.00	
	TOTAL				460.00	W
	Add 1 % Water charges on “W”				4.60	
	TOTAL				464.60	X
	Add GST on “X” (multiplying factor 0.2127)				98.82	
	TOTAL				563.42	Y
	Add 15% CPOH on “Y”				84.51	
	TOTAL				647.93	Z
	Add Cess @ 1% on “Z”				6.48	
	Cost of 1 no.				654.41	
	Say				654.40	

18.93.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8835	Reducing Tee for 34.00 mm X 28.58 mm outer dia SS pipe	each	1.00	475.00	475.00	
	TOTAL				475.00	W
	Add 1 % Water charges on “W”				4.75	
	TOTAL				479.75	X
	Add GST on “X” (multiplying factor 0.2127)				102.04	
	TOTAL				581.79	Y
	Add 15% CPOH on “Y”				87.27	
	TOTAL				669.06	Z
	Add Cess @ 1% on “Z”				6.69	
	Cost of 1 no.				675.75	
	Say				675.75	

18.93.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8836	Reducing Tee for 42.70 mm X 15.88 mm outer dia SS pipe	each	1.00	735.00	735.00	
	TOTAL				735.00	W
	Add 1 % Water charges on “W”				7.35	
	TOTAL				742.35	X
	Add GST on “X” (multiplying factor 0.2127)				157.90	
	TOTAL				900.25	Y
	Add 15% CPOH on “Y”				135.04	
	TOTAL				1035.29	Z
	Add Cess @ 1% on “Z”				10.35	
	Cost of 1 no.				1045.64	
	Say				1045.65	

18.93.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	1.00	750.00	750.00	
	TOTAL				750.00	W
	Add 1 % Water charges on “W”				7.50	
	TOTAL				757.50	X
	Add GST on “X” (multiplying factor 0.2127)				161.12	
	TOTAL				918.62	Y
	Add 15% CPOH on “Y”				137.79	
	TOTAL				1056.41	Z
	Add Cess @ 1% on “Z”				10.56	
	Cost of 1 no.				1066.97	
	Say				1066.95	

18.93.9 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8838	Reducing Tee for 42.70 mm X 28.58 mm outer dia SS pipe	each	1.00	770.00	770.00	
	TOTAL				770.00	W
	Add 1 % Water charges on “W”				7.70	
	TOTAL				777.70	X
	Add GST on “X” (multiplying factor 0.2127)				165.42	
	TOTAL				943.12	Y
	Add 15% CPOH on “Y”				141.47	
	TOTAL				1084.59	Z
	Add Cess @ 1% on “Z”				10.85	
	Cost of 1 no.				1095.44	
	Say				1095.45	

18.93.10 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8839	Reducing Tee for 42.70 mm X 34.00 mm outer dia SS pipe	each	1.00	790.00	790.00	
	TOTAL				790.00	W
	Add 1 % Water charges on “W”				7.90	
	TOTAL				797.90	X
	Add GST on “X” (multiplying factor 0.2127)				169.71	
	TOTAL				967.61	Y
	Add 15% CPOH on “Y”				145.14	
	TOTAL				1112.75	Z
	Add Cess @ 1% on “Z”				11.13	
	Cost of 1 no.				1123.88	
	Say				1123.90	

18.93.11 For 48.60 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8840	Reducing Tee for 48.60 mm X 15.88 mm outer dia SS pipe	each	1.00	900.00	900.00	
	TOTAL				900.00	W
	Add 1 % Water charges on “W”				9.00	
	TOTAL				909.00	X
	Add GST on “X” (multiplying factor 0.2127)				193.34	
	TOTAL				1102.34	Y
	Add 15% CPOH on “Y”				165.35	
	TOTAL				1267.69	Z
	Add Cess @ 1% on “Z”				12.68	
	Cost of 1 no.				1280.37	
	Say				1280.35	

18.93.12 For 48.60 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8841	Reducing Tee for 48.60 mm X 22.22 mm outer dia SS pipe	each	1.00	911.00	911.00	
	TOTAL				911.00	W
	Add 1 % Water charges on “W”				9.11	
	TOTAL				920.11	X
	Add GST on “X” (multiplying factor 0.2127)				195.71	
	TOTAL				1115.82	Y
	Add 15% CPOH on “Y”				167.37	
	TOTAL				1283.19	Z
	Add Cess @ 1% on “Z”				12.83	
	Cost of 1 no.				1296.02	
	Say				1296.00	

18.93.13 For 48.60 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8842	Reducing Tee for 48.60 mm X 28.58 mm outer dia SS pipe	each	1.00	928.00	928.00	
	TOTAL				928.00	W
	Add 1 % Water charges on “W”				9.28	
	TOTAL				937.28	X
	Add GST on “X” (multiplying factor 0.2127)				199.36	
	TOTAL				1136.64	Y
	Add 15% CPOH on “Y”				170.50	
	TOTAL				1307.14	Z
	Add Cess @ 1% on “Z”				13.07	
	Cost of 1 no.				1320.21	
	Say				1320.20	

18.93.14 For 48.60 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8843	Reducing Tee for 48.60mm X 34.00 mm outer dia SS pipe	each	1.00	965.00	965.00	
	TOTAL				965.00	W
	Add 1 % Water charges on “W”				9.65	
	TOTAL				974.65	X
	Add GST on “X” (multiplying factor 0.2127)				207.31	
	TOTAL				1181.96	Y
	Add 15% CPOH on “Y”				177.29	
	TOTAL				1359.25	Z
	Add Cess @ 1% on “Z”				13.59	
	Cost of 1 no.				1372.84	
	Say				1372.85	

18.93.15 For 48.60 mm x 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8844	Reducing Tee for 48.60mm X 42.70mm outer dia SS pipe	each	1.00	985.00	985.00	
	TOTAL				985.00	W
	Add 1 % Water charges on “W”				9.85	
	TOTAL				994.85	X
	Add GST on “X” (multiplying factor 0.2127)				211.60	
	TOTAL				1206.45	Y
	Add 15% CPOH on “Y”				180.97	
	TOTAL				1387.42	Z
	Add Cess @ 1% on “Z”				13.87	
	Cost of 1 no.				1401.29	
	Say				1401.30	

18.93A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Tee

18.93A.1 For 22 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3903	Reducing Tee for 22 mm x 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	640.00	640.00	
	TOTAL				640.00	W
	Add 1 % Water charges on “W”				6.40	
	TOTAL				646.40	X
	Add GST on “X” (multiplying factor 0.2127)				137.49	
	TOTAL				783.89	Y
	Add 15% CPOH on “Y”				117.58	
	TOTAL				901.47	Z
	Add Cess @ 1% on “Z”				9.01	
	Cost of 1 no.				910.48	
	Say				910.50	

18.93A.2 For 28 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3904	Reducing Tee for 28 mm X 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	795.00	795.00	
	TOTAL				795.00	W
	Add 1 % Water charges on “W”				7.95	
	TOTAL				802.95	X
	Add GST on “X” (multiplying factor 0.2127)				170.79	
	TOTAL				973.74	Y
	Add 15% CPOH on “Y”				146.06	
	TOTAL				1119.80	Z
	Add Cess @ 1% on “Z”				11.20	
	Cost of 1 no.				1131.00	
	Say				1131.00	

18.93A.3 For 28 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3905	Reducing Tee for 28 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	800.00	800.00	
	TOTAL				800.00	W
	Add 1 % Water charges on “W”				8.00	
	TOTAL				808.00	X
	Add GST on “X” (multiplying factor 0.2127)				171.86	
	TOTAL				979.86	Y
	Add 15% CPOH on “Y”				146.98	
	TOTAL				1126.84	Z
	Add Cess @ 1% on “Z”				11.27	
	Cost of 1 no.				1138.11	
	Say				1138.10	

18.93A.4 For 35 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3906	Reducing Tee for 35 mm X 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1005.00	1005.00	
	TOTAL				1005.00	W
	Add 1 % Water charges on “W”				10.05	
	TOTAL				1015.05	X
	Add GST on “X” (multiplying factor 0.2127)				215.90	
	TOTAL				1230.95	Y
	Add 15% CPOH on “Y”				184.64	
	TOTAL				1415.59	Z
	Add Cess @ 1% on “Z”				14.16	
	Cost of 1 no.				1429.75	
	Say				1429.75	

18.93A.5 For 35 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3907	Reducing Tee for 35 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1010.00	1010.00	
	TOTAL				1010.00	W
	Add 1 % Water charges on “W”				10.10	
	TOTAL				1020.10	X
	Add GST on “X” (multiplying factor 0.2127)				216.98	
	TOTAL				1237.08	Y
	Add 15% CPOH on “Y”				185.56	
	TOTAL				1422.64	Z
	Add Cess @ 1% on “Z”				14.23	
	Cost of 1 no.				1436.87	
	Say				1436.85	

18.93A.6 For 35 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3908	Reducing Tee for 35 mm X 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1020.00	1020.00	
	TOTAL				1020.00	W
	Add 1 % Water charges on “W”				10.20	
	TOTAL				1030.20	X
	Add GST on “X” (multiplying factor 0.2127)				219.12	
	TOTAL				1249.32	Y
	Add 15% CPOH on “Y”				187.40	
	TOTAL				1436.72	Z
	Add Cess @ 1% on “Z”				14.37	
	Cost of 1 no.				1451.09	
	Say				1451.10	

18.93A.7 For 42 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3909	Reducing Tee for 42 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1415.00	1415.00	
	TOTAL				1415.00	W
	Add 1 % Water charges on “W”				14.15	
	TOTAL				1429.15	X
	Add GST on “X” (multiplying factor 0.2127)				303.98	
	TOTAL				1733.13	Y
	Add 15% CPOH on “Y”				259.97	
	TOTAL				1993.10	Z
	Add Cess @ 1% on “Z”				19.93	
	Cost of 1 no.				2013.03	
	Say				2013.05	

18.93A.8 For 42 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3910	Reducing Tee for 42 mm X 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1430.00	1430.00	
	TOTAL				1430.00	W
	Add 1 % Water charges on “W”				14.30	
	TOTAL				1444.30	X
	Add GST on “X” (multiplying factor 0.2127)				307.20	
	TOTAL				1751.50	Y
	Add 15% CPOH on “Y”				262.73	
	TOTAL				2014.23	Z
	Add Cess @ 1% on “Z”				20.14	
	Cost of 1 no.				2034.37	
	Say				2034.35	

18.93A.9 For 42 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3911	Reducing Tee for 42 mm X 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1440.00	1440.00	
	TOTAL				1440.00	W
	Add 1 % Water charges on “W”				14.40	
	TOTAL				1454.40	X
	Add GST on “X” (multiplying factor 0.2127)				309.35	
	TOTAL				1763.75	Y
	Add 15% CPOH on “Y”				264.56	
	TOTAL				2028.31	Z
	Add Cess @ 1% on “Z”				20.28	
	Cost of 1 no.				2048.59	
	Say				2048.60	

18.93A.10 For 54 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3912	Reducing Tee for 54 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1680.00	1680.00	
	TOTAL				1680.00	W
	Add 1 % Water charges on “W”				16.80	
	TOTAL				1696.80	X
	Add GST on “X” (multiplying factor 0.2127)				360.91	
	TOTAL				2057.71	Y
	Add 15% CPOH on “Y”				308.66	
	TOTAL				2366.37	Z
	Add Cess @ 1% on “Z”				23.66	
	Cost of 1 no.				2390.03	
	Say				2390.05	

18.93A.11 For 54 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3913	Reducing Tee for 54 mm X 28 mm outer dia SS pipe of grade 316 conforming to IS 6911:2017	each	1.00	1720.00	1720.00	
	TOTAL				1720.00	W
	Add 1 % Water charges on “W”				17.20	
	TOTAL				1737.20	X
	Add GST on “X” (multiplying factor 0.2127)				369.50	
	TOTAL				2106.70	Y
	Add 15% CPOH on “Y”				316.01	
	TOTAL				2422.71	Z
	Add Cess @ 1% on “Z”				24.23	
	Cost of 1 no.				2446.94	
	Say				2446.95	

18.93A.12 For 54 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3914	Reducing Tee for 54 mm X 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1735.00	1735.00	
	TOTAL				1735.00	W
	Add 1 % Water charges on “W”				17.35	
	TOTAL				1752.35	X
	Add GST on “X” (multiplying factor 0.2127)				372.72	
	TOTAL				2125.07	Y
	Add 15% CPOH on “Y”				318.76	
	TOTAL				2443.83	Z
	Add Cess @ 1% on “Z”				24.44	
	Cost of 1 no.				2468.27	
	Say				2468.25	

18.93A.13 For 54 mm x 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3915	Reducing Tee for 54mm X 42mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1755.00	1755.00	
	TOTAL				1755.00	W
	Add 1 % Water charges on "W"				17.55	
	TOTAL				1772.55	X
	Add GST on "X" (multiplying factor 0.2127)				377.02	
	TOTAL				2149.57	Y
	Add 15% CPOH on "Y"				322.44	
	TOTAL				2472.01	Z
	Add Cess @ 1% on "Z"				24.72	
	Cost of 1 no.				2496.73	
	Say				2496.75	

18.94 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Thread Tee

18.94.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8845	Stainless steel Male thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	205.00	205.00	
	TOTAL				205.00	W
	Add 1 % Water charges on "W"				2.05	
	TOTAL				207.05	X
	Add GST on "X" (multiplying factor 0.2127)				44.04	
	TOTAL				251.09	Y
	Add 15% CPOH on "Y"				37.66	
	TOTAL				288.75	Z
	Add Cess @ 1% on "Z"				2.89	
	Cost of 1 no.				291.64	
	Say				291.65	

18.94.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8846	Stainless steel Male thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	235.00	235.00	
	TOTAL				235.00	W
	Add 1 % Water charges on "W"				2.35	
	TOTAL				237.35	X
	Add GST on "X" (multiplying factor 0.2127)				50.48	
	TOTAL				287.83	Y
	Add 15% CPOH on "Y"				43.17	
	TOTAL				331.00	Z
	Add Cess @ 1% on "Z"				3.31	
	Cost of 1 no.				334.31	
	Say				334.30	

18.94.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8847	Stainless steel Male thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	250.00	250.00	
	TOTAL				250.00	W
	Add 1 % Water charges on “W”				2.50	
	TOTAL				252.50	X
	Add GST on “X” (multiplying factor 0.2127)				53.71	
	TOTAL				306.21	Y
	Add 15% CPOH on “Y”				45.93	
	TOTAL				352.14	Z
	Add Cess @ 1% on “Z”				3.52	
	Cost of 1 no.				355.66	
	Say				355.65	

18.94.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8848	Stainless steel Male thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	315.00	315.00	
	TOTAL				315.00	W
	Add 1 % Water charges on “W”				3.15	
	TOTAL				318.15	X
	Add GST on “X” (multiplying factor 0.2127)				67.67	
	TOTAL				385.82	Y
	Add 15% CPOH on “Y”				57.87	
	TOTAL				443.69	Z
	Add Cess @ 1% on “Z”				4.44	
	Cost of 1 no.				448.13	
	Say				448.15	

18.94.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8849	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	325.00	325.00	
	TOTAL				325.00	W
	Add 1 % Water charges on “W”				3.25	
	TOTAL				328.25	X
	Add GST on “X” (multiplying factor 0.2127)				69.82	
	TOTAL				398.07	Y
	Add 15% CPOH on “Y”				59.71	
	TOTAL				457.78	Z
	Add Cess @ 1% on “Z”				4.58	
	Cost of 1 no.				462.36	
	Say				462.35	

18.94.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8850	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	335.00	335.00	
	TOTAL				335.00	W
	Add 1 % Water charges on “W”				3.35	
	TOTAL				338.35	X
	Add GST on “X” (multiplying factor 0.2127)				71.97	
	TOTAL				410.32	Y
	Add 15% CPOH on “Y”				61.55	
	TOTAL				471.87	Z
	Add Cess @ 1% on “Z”				4.72	
	Cost of 1 no.				476.59	
	Say				476.60	

18.94.7 For 34.00 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8851	Stainless steel Male thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	1.00	465.00	465.00	
	TOTAL				465.00	W
	Add 1 % Water charges on “W”				4.65	
	TOTAL				469.65	X
	Add GST on “X” (multiplying factor 0.2127)				99.89	
	TOTAL				569.54	Y
	Add 15% CPOH on “Y”				85.43	
	TOTAL				654.97	Z
	Add Cess @ 1% on “Z”				6.55	
	Cost of 1 no.				661.52	
	Say				661.50	

18.94.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8852	Stainless steel Male thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	1.00	475.00	475.00	
	TOTAL				475.00	W
	Add 1 % Water charges on “W”				4.75	
	TOTAL				479.75	X
	Add GST on “X” (multiplying factor 0.2127)				102.04	
	TOTAL				581.79	Y
	Add 15% CPOH on “Y”				87.27	
	TOTAL				669.06	Z
	Add Cess @ 1% on “Z”				6.69	
	Cost of 1 no.				675.75	
	Say				675.75	

18.94.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8853	Stainless steel Male thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	495.00	495.00	
	TOTAL				495.00	W
	Add 1 % Water charges on “W”				4.95	
	TOTAL				499.95	X
	Add GST on “X” (multiplying factor 0.2127)				106.34	
	TOTAL				606.29	Y
	Add 15% CPOH on “Y”				90.94	
	TOTAL				697.23	Z
	Add Cess @ 1% on “Z”				6.97	
	Cost of 1 no.				704.20	
	Say				704.20	

18.94.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8854	Stainless steel Male thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	515.00	515.00	
	TOTAL				515.00	W
	Add 1 % Water charges on “W”				5.15	
	TOTAL				520.15	X
	Add GST on “X” (multiplying factor 0.2127)				110.64	
	TOTAL				630.79	Y
	Add 15% CPOH on “Y”				94.62	
	TOTAL				725.41	Z
	Add Cess @ 1% on “Z”				7.25	
	Cost of 1 no.				732.66	
	Say				732.65	

18.94.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8855	Stainless steel Male thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	1.00	710.00	710.00	
	TOTAL				710.00	W
	Add 1 % Water charges on “W”				7.10	
	TOTAL				717.10	X
	Add GST on “X” (multiplying factor 0.2127)				152.53	
	TOTAL				869.63	Y
	Add 15% CPOH on “Y”				130.44	
	TOTAL				1000.07	Z
	Add Cess @ 1% on “Z”				10.00	
	Cost of 1 no.				1010.07	
	Say				1010.05	

18.94.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8856	Stainless steel Male thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	1.00	725.00	725.00	
	TOTAL				725.00	W
	Add 1 % Water charges on “W”				7.25	
	TOTAL				732.25	X
	Add GST on “X” (multiplying factor 0.2127)				155.75	
	TOTAL				888.00	Y
	Add 15% CPOH on “Y”				133.20	
	TOTAL				1021.20	Z
	Add Cess @ 1% on “Z”				10.21	
	Cost of 1 no.				1031.41	
	Say				1031.40	

18.94.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8857	Stainless steel Male thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	1.00	765.00	765.00	
	TOTAL				765.00	W
	Add 1 % Water charges on “W”				7.65	
	TOTAL				772.65	X
	Add GST on “X” (multiplying factor 0.2127)				164.34	
	TOTAL				936.99	Y
	Add 15% CPOH on “Y”				140.55	
	TOTAL				1077.54	Z
	Add Cess @ 1% on “Z”				10.78	
	Cost of 1 no.				1088.32	
	Say				1088.30	

18.94.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8858	Stainless steel Male thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	795.00	795.00	
	TOTAL				795.00	W
	Add 1 % Water charges on “W”				7.95	
	TOTAL				802.95	X
	Add GST on “X” (multiplying factor 0.2127)				170.79	
	TOTAL				973.74	Y
	Add 15% CPOH on “Y”				146.06	
	TOTAL				1119.80	Z
	Add Cess @ 1% on “Z”				11.20	
	Cost of 1 no.				1131.00	
	Say				1131.00	

18.94.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8859	Stainless steel Male thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	825.00	825.00	
	TOTAL				825.00	W
	Add 1 % Water charges on “W”				8.25	
	TOTAL				833.25	X
	Add GST on “X” (multiplying factor 0.2127)				177.23	
	TOTAL				1010.48	Y
	Add 15% CPOH on “Y”				151.57	
	TOTAL				1162.05	Z
	Add Cess @ 1% on “Z”				11.62	
	Cost of 1 no.				1173.67	
	Say				1173.65	

18.94.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8860	Stainless steel Male thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	1.00	995.00	995.00	
	TOTAL				995.00	W
	Add 1 % Water charges on “W”				9.95	
	TOTAL				1004.95	X
	Add GST on “X” (multiplying factor 0.2127)				213.75	
	TOTAL				1218.70	Y
	Add 15% CPOH on “Y”				182.81	
	TOTAL				1401.51	Z
	Add Cess @ 1% on “Z”				14.02	
	Cost of 1 no.				1415.53	
	Say				1415.55	

18.94.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8861	Stainless steel Male thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	1.00	1014.00	1014.00	
	TOTAL				1014.00	W
	Add 1 % Water charges on “W”				10.14	
	TOTAL				1024.14	X
	Add GST on “X” (multiplying factor 0.2127)				217.83	
	TOTAL				1241.97	Y
	Add 15% CPOH on “Y”				186.30	
	TOTAL				1428.27	Z
	Add Cess @ 1% on “Z”				14.28	
	Cost of 1 no.				1442.55	
	Say				1442.55	

18.94.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8862	Stainless steel Male thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	1.00	1025.00	1025.00	
	TOTAL				1025.00	W
	Add 1 % Water charges on “W”				10.25	
	TOTAL				1035.25	X
	Add GST on “X” (multiplying factor 0.2127)				220.20	
	TOTAL				1255.45	Y
	Add 15% CPOH on “Y”				188.32	
	TOTAL				1443.77	Z
	Add Cess @ 1% on “Z”				14.44	
	Cost of 1 no.				1458.21	
	Say				1458.20	

18.94.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8863	Stainless steel Male thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	1.00	1050.00	1050.00	
	TOTAL				1050.00	W
	Add 1 % Water charges on “W”				10.50	
	TOTAL				1060.50	X
	Add GST on “X” (multiplying factor 0.2127)				225.57	
	TOTAL				1286.07	Y
	Add 15% CPOH on “Y”				192.91	
	TOTAL				1478.98	Z
	Add Cess @ 1% on “Z”				14.79	
	Cost of 1 no.				1493.77	
	Say				1493.75	

18.94.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8864	Stainless steel Male thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	1080.00	1080.00	
	TOTAL				1080.00	W
	Add 1 % Water charges on “W”				10.80	
	TOTAL				1090.80	X
	Add GST on “X” (multiplying factor 0.2127)				232.01	
	TOTAL				1322.81	Y
	Add 15% CPOH on “Y”				198.42	
	TOTAL				1521.23	Z
	Add Cess @ 1% on “Z”				15.21	
	Cost of 1 no.				1536.44	
	Say				1536.45	

18.94.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8865	Stainless steel Male thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	1115.00	1115.00	
	TOTAL				1115.00	W
	Add 1 % Water charges on "W"				11.15	
	TOTAL				1126.15	X
	Add GST on "X" (multiplying factor 0.2127)				239.53	
	TOTAL				1365.68	Y
	Add 15% CPOH on "Y"				204.85	
	TOTAL				1570.53	Z
	Add Cess @ 1% on "Z"				15.71	
	Cost of 1 no.				1586.24	
	Say				1586.25	

18.95 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Tee

18.95.1 For 15.88 mm outer dia x15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8866	Stainless steel Female thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00	
	TOTAL				195.00	W
	Add 1 % Water charges on "W"				1.95	
	TOTAL				196.95	X
	Add GST on "X" (multiplying factor 0.2127)				41.89	
	TOTAL				238.84	Y
	Add 15% CPOH on "Y"				35.83	
	TOTAL				274.67	Z
	Add Cess @ 1% on "Z"				2.75	
	Cost of 1 no.				277.42	
	Say				277.40	

18.95.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8867	Stainless steel Female thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	215.00	215.00	
	TOTAL				215.00	W
	Add 1 % Water charges on "W"				2.15	
	TOTAL				217.15	X
	Add GST on "X" (multiplying factor 0.2127)				46.19	
	TOTAL				263.34	Y
	Add 15% CPOH on "Y"				39.50	
	TOTAL				302.84	Z
	Add Cess @ 1% on "Z"				3.03	
	Cost of 1 no.				305.87	
	Say				305.85	

18.95.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8868	Stainless steel Female thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	225.00	225.00	
	TOTAL				225.00	W
	Add 1 % Water charges on “W”				2.25	
	TOTAL				227.25	X
	Add GST on “X” (multiplying factor 0.2127)				48.34	
	TOTAL				275.59	Y
	Add 15% CPOH on “Y”				41.34	
	TOTAL				316.93	Z
	Add Cess @ 1% on “Z”				3.17	
	Cost of 1 no.				320.10	
	Say				320.10	

18.95.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8869	Stainless steel Female thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	285.00	285.00	
	TOTAL				285.00	W
	Add 1 % Water charges on “W”				2.85	
	TOTAL				287.85	X
	Add GST on “X” (multiplying factor 0.2127)				61.23	
	TOTAL				349.08	Y
	Add 15% CPOH on “Y”				52.36	
	TOTAL				401.44	Z
	Add Cess @ 1% on “Z”				4.01	
	Cost of 1 no.				405.45	
	Say				405.45	

18.95.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8870	Stainless steel Female thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	295.00	295.00	
	TOTAL				295.00	W
	Add 1 % Water charges on “W”				2.95	
	TOTAL				297.95	X
	Add GST on “X” (multiplying factor 0.2127)				63.37	
	TOTAL				361.32	Y
	Add 15% CPOH on “Y”				54.20	
	TOTAL				415.52	Z
	Add Cess @ 1% on “Z”				4.16	
	Cost of 1 no.				419.68	
	Say				419.70	

18.95.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8871	Stainless steel Female thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	305.00	305.00	
	TOTAL				305.00	W
	Add 1 % Water charges on “W”				3.05	
	TOTAL				308.05	X
	Add GST on “X” (multiplying factor 0.2127)				65.52	
	TOTAL				373.57	Y
	Add 15% CPOH on “Y”				56.04	
	TOTAL				429.61	Z
	Add Cess @ 1% on “Z”				4.30	
	Cost of 1 no.				433.91	
	Say				433.90	

18.95.7 For 34.00 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8872	Stainless steel Female thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	1.00	455.00	455.00	
	TOTAL				455.00	W
	Add 1 % Water charges on “W”				4.55	
	TOTAL				459.55	X
	Add GST on “X” (multiplying factor 0.2127)				97.75	
	TOTAL				557.30	Y
	Add 15% CPOH on “Y”				83.60	
	TOTAL				640.90	Z
	Add Cess @ 1% on “Z”				6.41	
	Cost of 1 no.				647.31	
	Say				647.30	

18.95.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8873	Stainless steel Female thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	1.00	485.00	485.00	
	TOTAL				485.00	W
	Add 1 % Water charges on “W”				4.85	
	TOTAL				489.85	X
	Add GST on “X” (multiplying factor 0.2127)				104.19	
	TOTAL				594.04	Y
	Add 15% CPOH on “Y”				89.11	
	TOTAL				683.15	Z
	Add Cess @ 1% on “Z”				6.83	
	Cost of 1 no.				689.98	
	Say				690.00	

18.95.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8874	Stainless steel Female thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	515.00	515.00	
	TOTAL				515.00	W
	Add 1 % Water charges on “W”				5.15	
	TOTAL				520.15	X
	Add GST on “X” (multiplying factor 0.2127)				110.64	
	TOTAL				630.79	Y
	Add 15% CPOH on “Y”				94.62	
	TOTAL				725.41	Z
	Add Cess @ 1% on “Z”				7.25	
	Cost of 1 no.				732.66	
	Say				732.65	

18.95.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8875	Stainless steel Female thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	545.00	545.00	
	TOTAL				545.00	W
	Add 1 % Water charges on “W”				5.45	
	TOTAL				550.45	X
	Add GST on “X” (multiplying factor 0.2127)				117.08	
	TOTAL				667.53	Y
	Add 15% CPOH on “Y”				100.13	
	TOTAL				767.66	Z
	Add Cess @ 1% on “Z”				7.68	
	Cost of 1 no.				775.34	
	Say				775.35	

18.95.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8876	Stainless steel Female thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	1.00	700.00	700.00	
	TOTAL				700.00	W
	Add 1 % Water charges on “W”				7.00	
	TOTAL				707.00	X
	Add GST on “X” (multiplying factor 0.2127)				150.38	
	TOTAL				857.38	Y
	Add 15% CPOH on “Y”				128.61	
	TOTAL				985.99	Z
	Add Cess @ 1% on “Z”				9.86	
	Cost of 1 no.				995.85	
	Say				995.85	

18.95.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8877	Stainless steel Female thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	1.00	710.00	710.00	
	TOTAL				710.00	W
	Add 1 % Water charges on “W”				7.10	
	TOTAL				717.10	X
	Add GST on “X” (multiplying factor 0.2127)				152.53	
	TOTAL				869.63	Y
	Add 15% CPOH on “Y”				130.44	
	TOTAL				1000.07	Z
	Add Cess @ 1% on “Z”				10.00	
	Cost of 1 no.				1010.07	
	Say				1010.05	

18.95.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8878	Stainless steel Female thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	1.00	730.00	730.00	
	TOTAL				730.00	W
	Add 1 % Water charges on “W”				7.30	
	TOTAL				737.30	X
	Add GST on “X” (multiplying factor 0.2127)				156.82	
	TOTAL				894.12	Y
	Add 15% CPOH on “Y”				134.12	
	TOTAL				1028.24	Z
	Add Cess @ 1% on “Z”				10.28	
	Cost of 1 no.				1038.52	
	Say				1038.50	

18.95.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8879	Stainless steel Female thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	750.00	750.00	
	TOTAL				750.00	W
	Add 1 % Water charges on “W”				7.50	
	TOTAL				757.50	X
	Add GST on “X” (multiplying factor 0.2127)				161.12	
	TOTAL				918.62	Y
	Add 15% CPOH on “Y”				137.79	
	TOTAL				1056.41	Z
	Add Cess @ 1% on “Z”				10.56	
	Cost of 1 no.				1066.97	
	Say				1066.95	

18.95.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8880	Stainless steel Female thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	805.00	805.00	
	TOTAL				805.00	W
	Add 1 % Water charges on “W”				8.05	
	TOTAL				813.05	X
	Add GST on “X” (multiplying factor 0.2127)				172.94	
	TOTAL				985.99	Y
	Add 15% CPOH on “Y”				147.90	
	TOTAL				1133.89	Z
	Add Cess @ 1% on “Z”				11.34	
	Cost of 1 no.				1145.23	
	Say				1145.25	

18.95.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8881	Stainless steel Female thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	1.00	905.00	905.00	
	TOTAL				905.00	W
	Add 1 % Water charges on “W”				9.05	
	TOTAL				914.05	X
	Add GST on “X” (multiplying factor 0.2127)				194.42	
	TOTAL				1108.47	Y
	Add 15% CPOH on “Y”				166.27	
	TOTAL				1274.74	Z
	Add Cess @ 1% on “Z”				12.75	
	Cost of 1 no.				1287.49	
	Say				1287.50	

18.95.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8882	Stainless steel Female thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	1.00	915.00	915.00	
	TOTAL				915.00	W
	Add 1 % Water charges on “W”				9.15	
	TOTAL				924.15	X
	Add GST on “X” (multiplying factor 0.2127)				196.57	
	TOTAL				1120.72	Y
	Add 15% CPOH on “Y”				168.11	
	TOTAL				1288.83	Z
	Add Cess @ 1% on “Z”				12.89	
	Cost of 1 no.				1301.72	
	Say				1301.70	

18.95.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8883	Stainless steel Female thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	1.00	930.00	930.00	
	TOTAL				930.00	W
	Add 1 % Water charges on “W”				9.30	
	TOTAL				939.30	X
	Add GST on “X” (multiplying factor 0.2127)				199.79	
	TOTAL				1139.09	Y
	Add 15% CPOH on “Y”				170.86	
	TOTAL				1309.95	Z
	Add Cess @ 1% on “Z”				13.10	
	Cost of 1 no.				1323.05	
	Say				1323.05	

18.95.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8884	Stainless steel Female thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	1.00	980.00	980.00	
	TOTAL				980.00	W
	Add 1 % Water charges on “W”				9.80	
	TOTAL				989.80	X
	Add GST on “X” (multiplying factor 0.2127)				210.53	
	TOTAL				1200.33	Y
	Add 15% CPOH on “Y”				180.05	
	TOTAL				1380.38	Z
	Add Cess @ 1% on “Z”				13.80	
	Cost of 1 no.				1394.18	
	Say				1394.20	

18.95.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8885	Stainless steel Female thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	1005.00	1005.00	
	TOTAL				1005.00	W
	Add 1 % Water charges on “W”				10.05	
	TOTAL				1015.05	X
	Add GST on “X” (multiplying factor 0.2127)				215.90	
	TOTAL				1230.95	Y
	Add 15% CPOH on “Y”				184.64	
	TOTAL				1415.59	Z
	Add Cess @ 1% on “Z”				14.16	
	Cost of 1 no.				1429.75	
	Say				1429.75	

18.95.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8886	Stainless steel Female thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	1085.00	1085.00	
	TOTAL				1085.00	W
	Add 1 % Water charges on “W”				10.85	
	TOTAL				1095.85	X
	Add GST on “X” (multiplying factor 0.2127)				233.09	
	TOTAL				1328.94	Y
	Add 15% CPOH on “Y”				199.34	
	TOTAL				1528.28	Z
	Add Cess @ 1% on “Z”				15.28	
	Cost of 1 no.				1543.56	
	Say				1543.55	

18.95A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Female Thread Tee

18.95A.1 For 15 mm outer dia x 1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3916	Stainless steel Female thread Tee for 15 mm outer dia X 1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	625.00	625.00	
	TOTAL				625.00	W
	Add 1 % Water charges on “W”				6.25	
	TOTAL				631.25	X
	Add GST on “X” (multiplying factor 0.2127)				134.27	
	TOTAL				765.52	Y
	Add 15% CPOH on “Y”				114.83	
	TOTAL				880.35	Z
	Add Cess @ 1% on “Z”				8.80	
	Cost of 1 no.				889.15	
	Say				889.15	

18.95A.2 For 22mm outer dia x 1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3917	Stainless steel Female thread Tee for 22 mm outer dia X 1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	680.00	680.00	
	TOTAL				680.00	W
	Add 1 % Water charges on “W”				6.80	
	TOTAL				686.80	X
	Add GST on “X” (multiplying factor 0.2127)				146.08	
	TOTAL				832.88	Y
	Add 15% CPOH on “Y”				124.93	
	TOTAL				957.81	Z
	Add Cess @ 1% on “Z”				9.58	
	Cost of 1 no.				967.39	
	Say				967.40	

18.95A.3 For 22mm outer dia x 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3918	Stainless steel Female thread Tee for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	770.00	770.00	
	TOTAL				770.00	W
	Add 1 % Water charges on "W"				7.70	
	TOTAL				777.70	X
	Add GST on "X" (multiplying factor 0.2127)				165.42	
	TOTAL				943.12	Y
	Add 15% CPOH on "Y"				141.47	
	TOTAL				1084.59	Z
	Add Cess @ 1% on "Z"				10.85	
	Cost of 1 no.				1095.44	
	Say				1095.45	

18.95A.4 For 28 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3919	Stainless steel Female thread Tee for 28 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	815.00	815.00	
	TOTAL				815.00	W
	Add 1 % Water charges on "W"				8.15	
	TOTAL				823.15	X
	Add GST on "X" (multiplying factor 0.2127)				175.08	
	TOTAL				998.23	Y
	Add 15% CPOH on "Y"				149.73	
	TOTAL				1147.96	Z
	Add Cess @ 1% on "Z"				11.48	
	Cost of 1 no.				1159.44	
	Say				1159.45	

18.95A.5 For 28 mm outer dia x 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3920	Stainless steel Female thread Tee for 28 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	845.00	845.00	
	TOTAL				845.00	W
	Add 1 % Water charges on "W"				8.45	
	TOTAL				853.45	X
	Add GST on "X" (multiplying factor 0.2127)				181.53	
	TOTAL				1034.98	Y
	Add 15% CPOH on "Y"				155.25	
	TOTAL				1190.23	Z
	Add Cess @ 1% on "Z"				11.90	
	Cost of 1 no.				1202.13	
	Say				1202.15	

18.95A.6 For 28 mm outer dia x 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3921	Stainless steel Female thread Tee for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	935.00	935.00	
	TOTAL				935.00	W
	Add 1 % Water charges on "W"				9.35	
	TOTAL				944.35	X
	Add GST on "X" (multiplying factor 0.2127)				200.86	
	TOTAL				1145.21	Y
	Add 15% CPOH on "Y"				171.78	
	TOTAL				1316.99	Z
	Add Cess @ 1% on "Z"				13.17	
	Cost of 1 no.				1330.16	
	Say				1330.15	

18.95A.7 For 35 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3922	Stainless steel Female thread Tee for 35 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	940.00	940.00	
	TOTAL				940.00	W
	Add 1 % Water charges on "W"				9.40	
	TOTAL				949.40	X
	Add GST on "X" (multiplying factor 0.2127)				201.94	
	TOTAL				1151.34	Y
	Add 15% CPOH on "Y"				172.70	
	TOTAL				1324.04	Z
	Add Cess @ 1% on "Z"				13.24	
	Cost of 1 no.				1337.28	
	Say				1337.30	

18.95A.8 For 35 mm outer dia x 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3923	Stainless steel Female thread Tee for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1295.00	1295.00	
	TOTAL				1295.00	W
	Add 1 % Water charges on "W"				12.95	
	TOTAL				1307.95	X
	Add GST on "X" (multiplying factor 0.2127)				278.20	
	TOTAL				1586.15	Y
	Add 15% CPOH on "Y"				237.92	
	TOTAL				1824.07	Z
	Add Cess @ 1% on "Z"				18.24	
	Cost of 1 no.				1842.31	
	Say				1842.30	

18.95A.9 For 42 mm outer dia x 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3924	Stainless steel Female thread Tee for 42 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1505.00	1505.00	
	TOTAL				1505.00	W
	Add 1 % Water charges on "W"				15.05	
	TOTAL				1520.05	X
	Add GST on "X" (multiplying factor 0.2127)				323.31	
	TOTAL				1843.36	Y
	Add 15% CPOH on "Y"				276.50	
	TOTAL				2119.86	Z
	Add Cess @ 1% on "Z"				21.20	
	Cost of 1 no.				2141.06	
	Say				2141.05	

18.95A.10 For 54 mm outer dia x 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3925	Stainless steel Female thread Tee for 54 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2150.00	2150.00	
	TOTAL				2150.00	W
	Add 1 % Water charges on "W"				21.50	
	TOTAL				2171.50	X
	Add GST on "X" (multiplying factor 0.2127)				461.88	
	TOTAL				2633.38	Y
	Add 15% CPOH on "Y"				395.01	
	TOTAL				3028.39	Z
	Add Cess @ 1% on "Z"				30.28	
	Cost of 1 no.				3058.67	
	Say				3058.65	

18.95A.11 For 54 mm outer dia x 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3926	Stainless steel Female thread Tee for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2580.00	2580.00	
	TOTAL				2580.00	W
	Add 1 % Water charges on "W"				25.80	
	TOTAL				2605.80	X
	Add GST on "X" (multiplying factor 0.2127)				554.25	
	TOTAL				3160.05	Y
	Add 15% CPOH on "Y"				474.01	
	TOTAL				3634.06	Z
	Add Cess @ 1% on "Z"				36.34	
	Cost of 1 no.				3670.40	
	Say				3670.40	

18.96 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Connector/ Adapter

18.96.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8887	Stainless steel Female threaded Connector/ Adapter for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	186.00	186.00	
	TOTAL				186.00	W
	Add 1 % Water charges on "W"				1.86	
	TOTAL				187.86	X
	Add GST on "X" (multiplying factor 0.2127)				39.96	
	TOTAL				227.82	Y
	Add 15% CPOH on "Y"				34.17	
	TOTAL				261.99	Z
	Add Cess @ 1% on "Z"				2.62	
	Cost of 1 no.				264.61	
	Say				264.60	

18.96.2 For 22.22 mm outer dia x 15 mmnominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8888	Stainless steel Female threaded Connector/ Adapter for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	205.00	205.00	
	TOTAL				205.00	W
	Add 1 % Water charges on "W"				2.05	
	TOTAL				207.05	X
	Add GST on "X" (multiplying factor 0.2127)				44.04	
	TOTAL				251.09	Y
	Add 15% CPOH on "Y"				37.66	
	TOTAL				288.75	Z
	Add Cess @ 1% on "Z"				2.89	
	Cost of 1 no.				291.64	
	Say				291.65	

18.96.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8889	Stainless steel Female threaded Connector/ Adapter for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	237.00	237.00	
	TOTAL				237.00	W
	Add 1 % Water charges on "W"				2.37	
	TOTAL				239.37	X
	Add GST on "X" (multiplying factor 0.2127)				50.91	
	TOTAL				290.28	Y
	Add 15% CPOH on "Y"				43.54	
	TOTAL				333.82	Z
	Add Cess @ 1% on "Z"				3.34	
	Cost of 1 no.				337.16	
	Say				337.15	

18.96.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8890	Stainless steel Female threaded Connector/ Adapter for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	277.00	277.00	
	TOTAL				277.00	W
	Add 1 % Water charges on “W”				2.77	
	TOTAL				279.77	X
	Add GST on “X” (multiplying factor 0.2127)				59.51	
	TOTAL				339.28	Y
	Add 15% CPOH on “Y”				50.89	
	TOTAL				390.17	Z
	Add Cess @ 1% on “Z”				3.90	
	Cost of 1 no.				394.07	
	Say				394.05	

18.96.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8891	Stainless steel Female threaded Connector/ Adapter for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	290.00	290.00	
	TOTAL				290.00	W
	Add 1 % Water charges on “W”				2.90	
	TOTAL				292.90	X
	Add GST on “X” (multiplying factor 0.2127)				62.30	
	TOTAL				355.20	Y
	Add 15% CPOH on “Y”				53.28	
	TOTAL				408.48	Z
	Add Cess @ 1% on “Z”				4.08	
	Cost of 1 no.				412.56	
	Say				412.55	

18.96.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8892	Stainless steel Female threaded Connector/ Adapter for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	355.00	355.00	
	TOTAL				355.00	W
	Add 1 % Water charges on “W”				3.55	
	TOTAL				358.55	X
	Add GST on “X” (multiplying factor 0.2127)				76.26	
	TOTAL				434.81	Y
	Add 15% CPOH on “Y”				65.22	
	TOTAL				500.03	Z
	Add Cess @ 1% on “Z”				5.00	
	Cost of 1 no.				505.03	
	Say				505.05	

18.96.7 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8893	Stainless steel Female threaded Connector/ Adapter for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	450.00	450.00	
	TOTAL				450.00	W
	Add 1 % Water charges on “W”				4.50	
	TOTAL				454.50	X
	Add GST on “X” (multiplying factor 0.2127)				96.67	
	TOTAL				551.17	Y
	Add 15% CPOH on “Y”				82.68	
	TOTAL				633.85	Z
	Add Cess @ 1% on “Z”				6.34	
	Cost of 1 no.				640.19	
	Say				640.20	

18.96.8 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8894	Stainless steel Female threaded Connector/ Adapter for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	540.00	540.00	
	TOTAL				540.00	W
	Add 1 % Water charges on “W”				5.40	
	TOTAL				545.40	X
	Add GST on “X” (multiplying factor 0.2127)				116.01	
	TOTAL				661.41	Y
	Add 15% CPOH on “Y”				99.21	
	TOTAL				760.62	Z
	Add Cess @ 1% on “Z”				7.61	
	Cost of 1 no.				768.23	
	Say				768.25	

18.96.9 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8895	Stainless steel Female threaded Connector/ Adapter for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	670.00	670.00	
	TOTAL				670.00	W
	Add 1 % Water charges on “W”				6.70	
	TOTAL				676.70	X
	Add GST on “X” (multiplying factor 0.2127)				143.93	
	TOTAL				820.63	Y
	Add 15% CPOH on “Y”				123.09	
	TOTAL				943.72	Z
	Add Cess @ 1% on “Z”				9.44	
	Cost of 1 no.				953.16	
	Say				953.15	

18.96.10 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8896	Stainless steel Female threaded Connector/ Adapter for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	705.00	705.00	
	TOTAL				705.00	W
	Add 1 % Water charges on “W”				7.05	
	TOTAL				712.05	X
	Add GST on “X” (multiplying factor 0.2127)				151.45	
	TOTAL				863.50	Y
	Add 15% CPOH on “Y”				129.53	
	TOTAL				993.03	Z
	Add Cess @ 1% on “Z”				9.93	
	Cost of 1 no.				1002.96	
	Say				1002.95	

18.96.11 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8897	Stainless steel Female threaded Connector/ Adapter for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	905.00	905.00	
	TOTAL				905.00	W
	Add 1 % Water charges on “W”				9.05	
	TOTAL				914.05	X
	Add GST on “X” (multiplying factor 0.2127)				194.42	
	TOTAL				1108.47	Y
	Add 15% CPOH on “Y”				166.27	
	TOTAL				1274.74	Z
	Add Cess @ 1% on “Z”				12.75	
	Cost of 1 no.				1287.49	
	Say				1287.50	

18.96.12 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8898	Stainless steel Female threaded Connector/ Adapter for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	975.00	975.00	
	TOTAL				975.00	W
	Add 1 % Water charges on “W”				9.75	
	TOTAL				984.75	X
	Add GST on “X” (multiplying factor 0.2127)				209.46	
	TOTAL				1194.21	Y
	Add 15% CPOH on “Y”				179.13	
	TOTAL				1373.34	Z
	Add Cess @ 1% on “Z”				13.73	
	Cost of 1 no.				1387.07	
	Say				1387.05	

18.96A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Female Thread Connector/ Adapter

18.96A.1 For 15 mm outer dia x 1/2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3927	Stainless steel Female threaded Connector/ Adapter for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	490.00	490.00	
	TOTAL				490.00	W
	Add 1 % Water charges on "W"				4.90	
	TOTAL				494.90	X
	Add GST on "X" (multiplying factor 0.2127)				105.27	
	TOTAL				600.17	Y
	Add 15% CPOH on "Y"				90.03	
	TOTAL				690.20	Z
	Add Cess @ 1% on "Z"				6.90	
	Cost of 1 no.				697.10	
	Say				697.10	

18.96A.2 For 22 mm outer dia x 1/2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3928	Stainless steel Female threaded Connector/ Adapter for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	550.00	550.00	
	TOTAL				550.00	W
	Add 1 % Water charges on "W"				5.50	
	TOTAL				555.50	X
	Add GST on "X" (multiplying factor 0.2127)				118.15	
	TOTAL				673.65	Y
	Add 15% CPOH on "Y"				101.05	
	TOTAL				774.70	Z
	Add Cess @ 1% on "Z"				7.75	
	Cost of 1 no.				782.45	
	Say				782.45	

18.96A.3 For 22 mm outer dia x 3/4" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3929	Stainless steel Female threaded Connector/ Adapter for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	645.00	645.00	
	TOTAL				645.00	W
	Add 1 % Water charges on "W"				6.45	
	TOTAL				651.45	X
	Add GST on "X" (multiplying factor 0.2127)				138.56	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				790.01	Y
	Add 15% CPOH on "Y"				118.50	
	TOTAL				908.51	Z
	Add Cess @ 1% on "Z"				9.09	
	Cost of 1 no.				917.60	
	Say				917.60	

18.96A.4 For 28 mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3930	Stainless steel Female threaded Connector/ Adapter for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1065.00	1065.00	
	TOTAL				1065.00	W
	Add 1 % Water charges on "W"				10.65	
	TOTAL				1075.65	X
	Add GST on "X" (multiplying factor 0.2127)				228.79	
	TOTAL				1304.44	Y
	Add 15% CPOH on "Y"				195.67	
	TOTAL				1500.11	Z
	Add Cess @ 1% on "Z"				15.00	
	Cost of 1 no.				1515.11	
	Say				1515.10	

18.96A.5 For 35 mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3931	Stainless steel Female threaded Connector/ Adapter for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1140.00	1140.00	
	TOTAL				1140.00	W
	Add 1 % Water charges on "W"				11.40	
	TOTAL				1151.40	X
	Add GST on "X" (multiplying factor 0.2127)				244.90	
	TOTAL				1396.30	Y
	Add 15% CPOH on "Y"				209.45	
	TOTAL				1605.75	Z
	Add Cess @ 1% on "Z"				16.06	
	Cost of 1 no.				1621.81	
	Say				1621.80	

18.96A.6 For 42 mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3932	Stainless steel Female threaded Connector/ Adapter for 42 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1750.00	1750.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1750.00	W
	Add 1 % Water charges on “W”				17.50	
	TOTAL				1767.50	X
	Add GST on “X” (multiplying factor 0.2127)				375.95	
	TOTAL				2143.45	Y
	Add 15% CPOH on “Y”				321.52	
	TOTAL				2464.97	Z
	Add Cess @ 1% on “Z”				24.65	
	Cost of 1 no.				2489.62	
	Say				2489.60	

18.96A.7 For 54 mm outer dia X 2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3933	Stainless steel Female threaded Connector/ Adapter for 54 mm outer dia X 2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2685.00	2685.00	
	TOTAL				2685.00	W
	Add 1 % Water charges on “W”				26.85	
	TOTAL				2711.85	X
	Add GST on “X” (multiplying factor 0.2127)				576.81	
	TOTAL				3288.66	Y
	Add 15% CPOH on “Y”				493.30	
	TOTAL				3781.96	Z
	Add Cess @ 1% on “Z”				37.82	
	Cost of 1 no.				3819.78	
	Say				3819.80	

18.97 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Thread Connector/ Adapter

18.97.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8899	Stainless steel Male threaded Connector/ Adapter for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	176.00	176.00	
	TOTAL				176.00	W
	Add 1 % Water charges on “W”				1.76	
	TOTAL				177.76	X
	Add GST on “X” (multiplying factor 0.2127)				37.81	
	TOTAL				215.57	Y
	Add 15% CPOH on “Y”				32.34	
	TOTAL				247.91	Z
	Add Cess @ 1% on “Z”				2.48	
	Cost of 1 no.				250.39	
	Say				250.40	

18.97.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8900	Stainless steel Male threaded Connector/ Adapter for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	189.00	189.00	
	TOTAL				189.00	W
	Add 1 % Water charges on “W”				1.89	
	TOTAL				190.89	X
	Add GST on “X” (multiplying factor 0.2127)				40.60	
	TOTAL				231.49	Y
	Add 15% CPOH on “Y”				34.72	
	TOTAL				266.21	Z
	Add Cess @ 1% on “Z”				2.66	
	Cost of 1 no.				268.87	
	Say				268.85	

18.97.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8901	Stainless steel Male threaded Connector/ Adapter for 22.22 mm outer dia X 20mm nominal dia threaded	each	1.00	211.00	211.00	
	TOTAL				211.00	W
	Add 1 % Water charges on “W”				2.11	
	TOTAL				213.11	X
	Add GST on “X” (multiplying factor 0.2127)				45.33	
	TOTAL				258.44	Y
	Add 15% CPOH on “Y”				38.77	
	TOTAL				297.21	Z
	Add Cess @ 1% on “Z”				2.97	
	Cost of 1 no.				300.18	
	Say				300.20	

18.97.4 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8902	Stainless steel Male threaded Connector/ Adapter for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	322.00	322.00	
	TOTAL				322.00	W
	Add 1 % Water charges on “W”				3.22	
	TOTAL				325.22	X
	Add GST on “X” (multiplying factor 0.2127)				69.17	
	TOTAL				394.39	Y
	Add 15% CPOH on “Y”				59.16	
	TOTAL				453.55	Z
	Add Cess @ 1% on “Z”				4.54	
	Cost of 1 no.				458.09	
	Say				458.10	

18.97.5 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8903	Stainless steel Male threaded Connector/ Adapter for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	324.00	324.00	
	TOTAL				324.00	W
	Add 1 % Water charges on “W”				3.24	
	TOTAL				327.24	X
	Add GST on “X” (multiplying factor 0.2127)				69.60	
	TOTAL				396.84	Y
	Add 15% CPOH on “Y”				59.53	
	TOTAL				456.37	Z
	Add Cess @ 1% on “Z”				4.56	
	Cost of 1 no.				460.93	
	Say				460.95	

18.97.6 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8904	Stainless steel Male threaded Connector/ Adapter for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	475.00	475.00	
	TOTAL				475.00	W
	Add 1 % Water charges on “W”				4.75	
	TOTAL				479.75	X
	Add GST on “X” (multiplying factor 0.2127)				102.04	
	TOTAL				581.79	Y
	Add 15% CPOH on “Y”				87.27	
	TOTAL				669.06	Z
	Add Cess @ 1% on “Z”				6.69	
	Cost of 1 no.				675.75	
	Say				675.75	

18.97.7 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8905	Stainless steel Male threaded Connector/ Adapter for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	565.00	565.00	
	TOTAL				565.00	W
	Add 1 % Water charges on “W”				5.65	
	TOTAL				570.65	X
	Add GST on “X” (multiplying factor 0.2127)				121.38	
	TOTAL				692.03	Y
	Add 15% CPOH on “Y”				103.80	
	TOTAL				795.83	Z
	Add Cess @ 1% on “Z”				7.96	
	Cost of 1 no.				803.79	
	Say				803.80	

18.97.8 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8906	Stainless steel Male threaded Connector/ Adapter for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	715.00	715.00	
	TOTAL				715.00	W
	Add 1 % Water charges on “W”				7.15	
	TOTAL				722.15	X
	Add GST on “X” (multiplying factor 0.2127)				153.60	
	TOTAL				875.75	Y
	Add 15% CPOH on “Y”				131.36	
	TOTAL				1007.11	Z
	Add Cess @ 1% on “Z”				10.07	
	Cost of 1 no.				1017.18	
	Say				1017.20	

18.97.9 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8907	Stainless steel Male threaded Connector/ Adapter for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	730.00	730.00	
	TOTAL				730.00	W
	Add 1 % Water charges on “W”				7.30	
	TOTAL				737.30	X
	Add GST on “X” (multiplying factor 0.2127)				156.82	
	TOTAL				894.12	Y
	Add 15% CPOH on “Y”				134.12	
	TOTAL				1028.24	Z
	Add Cess @ 1% on “Z”				10.28	
	Cost of 1 no.				1038.52	
	Say				1038.50	

18.97.10 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8908	Stainless steel Male threaded Connector/ Adapter for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	935.00	935.00	
	TOTAL				935.00	W
	Add 1 % Water charges on “W”				9.35	
	TOTAL				944.35	X
	Add GST on “X” (multiplying factor 0.2127)				200.86	
	TOTAL				1145.21	Y
	Add 15% CPOH on “Y”				171.78	
	TOTAL				1316.99	Z
	Add Cess @ 1% on “Z”				13.17	
	Cost of 1 no.				1330.16	
	Say				1330.15	

18.97.11 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8909	Stainless steel Male threaded Connector/ Adapter for 48.60 mm outer dia X 50 nominal dia threaded	each	1.00	1140.00	1140.00	
	TOTAL				1140.00	W
	Add 1 % Water charges on “W”				11.40	
	TOTAL				1151.40	X
	Add GST on “X” (multiplying factor 0.2127)				244.90	
	TOTAL				1396.30	Y
	Add 15% CPOH on “Y”				209.45	
	TOTAL				1605.75	Z
	Add Cess @ 1% on “Z”				16.06	
	Cost of 1 no.				1621.81	
	Say				1621.80	

18.97A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Thread Connector/ Adapter

18.97A.1 For 15 mm outer dia X 1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3934	Stainless steel Male threaded Connector/ Adapter for 15 mm outer dia X 1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	450.00	450.00	
	TOTAL				450.00	W
	Add 1 % Water charges on “W”				4.50	
	TOTAL				454.50	X
	Add GST on “X” (multiplying factor 0.2127)				96.67	
	TOTAL				551.17	Y
	Add 15% CPOH on “Y”				82.68	
	TOTAL				633.85	Z
	Add Cess @ 1% on “Z”				6.34	
	Cost of 1 no.				640.19	
	Say				640.20	

18.97A.2 For 22 mm outer dia X 1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3935	Stainless steel Male threaded Connector/ Adapter for 22 mm outer dia X 1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	535.00	535.00	
	TOTAL				535.00	W
	Add 1 % Water charges on “W”				5.35	
	TOTAL				540.35	X
	Add GST on “X” (multiplying factor 0.2127)				114.93	
	TOTAL				655.28	Y
	Add 15% CPOH on “Y”				98.29	
	TOTAL				753.57	Z
	Add Cess @ 1% on “Z”				7.54	
	Cost of 1 no.				761.11	
	Say				761.10	

18.97A.3 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3936	Stainless steel Male threaded Connector/ Adapter for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	565.00	565.00	
	TOTAL				565.00	W
	Add 1 % Water charges on "W"				5.65	
	TOTAL				570.65	X
	Add GST on "X" (multiplying factor 0.2127)				121.38	
	TOTAL				692.03	Y
	Add 15% CPOH on "Y"				103.80	
	TOTAL				795.83	Z
	Add Cess @ 1% on "Z"				7.96	
	Cost of 1 no.				803.79	
	Say				803.80	

18.97A.4 For 28 mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3937	Stainless steel Male threaded Connector/ Adapter for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	740.00	740.00	
	TOTAL				740.00	W
	Add 1 % Water charges on "W"				7.40	
	TOTAL				747.40	X
	Add GST on "X" (multiplying factor 0.2127)				158.97	
	TOTAL				906.37	Y
	Add 15% CPOH on "Y"				135.96	
	TOTAL				1042.33	Z
	Add Cess @ 1% on "Z"				10.42	
	Cost of 1 no.				1052.75	
	Say				1052.75	

18.97A.5 For 35 mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3938	Stainless steel Male threaded Connector/ Adapter for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1085.00	1085.00	
	TOTAL				1085.00	W
	Add 1 % Water charges on "W"				10.85	
	TOTAL				1095.85	X
	Add GST on "X" (multiplying factor 0.2127)				233.09	
	TOTAL				1328.94	Y
	Add 15% CPOH on "Y"				199.34	
	TOTAL				1528.28	Z
	Add Cess @ 1% on "Z"				15.28	
	Cost of 1 no.				1543.56	
	Say				1543.55	

18.97A.6 For 42 mm outer dia X 1-1/2"nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3939	Stainless steel Male threaded Connector/ Adapter for 42 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1580.00	1580.00	
	TOTAL				1580.00	W
	Add 1 % Water charges on "W"				15.80	
	TOTAL				1595.80	X
	Add GST on "X" (multiplying factor 0.2127)				339.43	
	TOTAL				1935.23	Y
	Add 15% CPOH on "Y"				290.28	
	TOTAL				2225.51	Z
	Add Cess @ 1% on "Z"				22.26	
	Cost of 1 no.				2247.77	
	Say				2247.75	

18.97A.7 For 54 mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3940	Stainless steel Male threaded Connector/ Adapter for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2120.00	2120.00	
	TOTAL				2120.00	W
	Add 1 % Water charges on "W"				21.20	
	TOTAL				2141.20	X
	Add GST on "X" (multiplying factor 0.2127)				455.43	
	TOTAL				2596.63	Y
	Add 15% CPOH on "Y"				389.49	
	TOTAL				2986.12	Z
	Add Cess @ 1% on "Z"				29.86	
	Cost of 1 no.				3015.98	
	Say				3016.00	

18.98 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Valve Connector

18.98.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8910	Stainless steel Valve Connector for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	223.00	223.00	
	TOTAL				223.00	W
	Add 1 % Water charges on "W"				2.23	
	TOTAL				225.23	X
	Add GST on "X" (multiplying factor 0.2127)				47.91	
	TOTAL				273.14	Y
	Add 15% CPOH on "Y"				40.97	
	TOTAL				314.11	Z
	Add Cess @ 1% on "Z"				3.14	
	Cost of 1 no.				317.25	
	Say				317.25	

18.98.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8911	Stainless steel Valve Connector for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	256.00	256.00	
	TOTAL				256.00	W
	Add 1 % Water charges on “W”				2.56	
	TOTAL				258.56	X
	Add GST on “X” (multiplying factor 0.2127)				55.00	
	TOTAL				313.56	Y
	Add 15% CPOH on “Y”				47.03	
	TOTAL				360.59	Z
	Add Cess @ 1% on “Z”				3.61	
	Cost of 1 no.				364.20	
	Say				364.20	

18.98.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8912	Stainless steel Valve Connector for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	278.00	278.00	
	TOTAL				278.00	W
	Add 1 % Water charges on “W”				2.78	
	TOTAL				280.78	X
	Add GST on “X” (multiplying factor 0.2127)				59.72	
	TOTAL				340.50	Y
	Add 15% CPOH on “Y”				51.08	
	TOTAL				391.58	Z
	Add Cess @ 1% on “Z”				3.92	
	Cost of 1 no.				395.50	
	Say				395.50	

18.98.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8913	Stainless steel Valve Connector for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	425.00	425.00	
	TOTAL				425.00	W
	Add 1 % Water charges on “W”				4.25	
	TOTAL				429.25	X
	Add GST on “X” (multiplying factor 0.2127)				91.30	
	TOTAL				520.55	Y
	Add 15% CPOH on “Y”				78.08	
	TOTAL				598.63	Z
	Add Cess @ 1% on “Z”				5.99	
	Cost of 1 no.				604.62	
	Say				604.60	

18.98.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8914	Stainless steel Valve Connector for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	645.00	645.00	
	TOTAL				645.00	W
	Add 1 % Water charges on “W”				6.45	
	TOTAL				651.45	X
	Add GST on “X” (multiplying factor 0.2127)				138.56	
	TOTAL				790.01	Y
	Add 15% CPOH on “Y”				118.50	
	TOTAL				908.51	Z
	Add Cess @ 1% on “Z”				9.09	
	Cost of 1 no.				917.60	
	Say				917.60	

18.98.6 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8915	Stainless steel Valve Connector for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	913.00	913.00	
	TOTAL				913.00	W
	Add 1 % Water charges on “W”				9.13	
	TOTAL				922.13	X
	Add GST on “X” (multiplying factor 0.2127)				196.14	
	TOTAL				1118.27	Y
	Add 15% CPOH on “Y”				167.74	
	TOTAL				1286.01	Z
	Add Cess @ 1% on “Z”				12.86	
	Cost of 1 no.				1298.87	
	Say				1298.85	

18.98.7 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8916	Stainless steel Valve Connector for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	1235.00	1235.00	
	TOTAL				1235.00	W
	Add 1 % Water charges on “W”				12.35	
	TOTAL				1247.35	X
	Add GST on “X” (multiplying factor 0.2127)				265.31	
	TOTAL				1512.66	Y
	Add 15% CPOH on “Y”				226.90	
	TOTAL				1739.56	Z
	Add Cess @ 1% on “Z”				17.40	
	Cost of 1 no.				1756.96	
	Say				1756.95	

18.99 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Female Threaded Elbow 90°

18.99.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8917	SS Female Threaded Elbow 90° for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	190.00	190.00	
	TOTAL				190.00	W
	Add 1 % Water charges on “W”				1.90	
	TOTAL				191.90	X
	Add GST on “X” (multiplying factor 0.2127)				40.82	
	TOTAL				232.72	Y
	Add 15% CPOH on “Y”				34.91	
	TOTAL				267.63	Z
	Add Cess @ 1% on “Z”				2.68	
	Cost of 1 no.				270.31	
	Say				270.30	

18.99.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8918	Stainless steel Female Threaded Elbow 90° for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	215.00	215.00	
	TOTAL				215.00	W
	Add 1 % Water charges on “W”				2.15	
	TOTAL				217.15	X
	Add GST on “X” (multiplying factor 0.2127)				46.19	
	TOTAL				263.34	Y
	Add 15% CPOH on “Y”				39.50	
	TOTAL				302.84	Z
	Add Cess @ 1% on “Z”				3.03	
	Cost of 1 no.				305.87	
	Say				305.85	

18.99.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8919	Stainless steel Female Threaded Elbow 90° for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	240.00	240.00	
	TOTAL				240.00	W
	Add 1 % Water charges on “W”				2.40	
	TOTAL				242.40	X
	Add GST on “X” (multiplying factor 0.2127)				51.56	
	TOTAL				293.96	Y
	Add 15% CPOH on “Y”				44.09	
	TOTAL				338.05	Z
	Add Cess @ 1% on “Z”				3.38	
	Cost of 1 no.				341.43	
	Say				341.45	

18.99.4 For 25.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8920	Stainless steel Female Threaded Elbow 90° for 25.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	260.00	260.00	
	TOTAL				260.00	W
	Add 1 % Water charges on “W”				2.60	
	TOTAL				262.60	X
	Add GST on “X” (multiplying factor 0.2127)				55.86	
	TOTAL				318.46	Y
	Add 15% CPOH on “Y”				47.77	
	TOTAL				366.23	Z
	Add Cess @ 1% on “Z”				3.66	
	Cost for 1 no.				369.89	
	Say				369.90	

18.99.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8921	Stainless steel Female Threaded Elbow 90° for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	335.00	335.00	
	TOTAL				335.00	W
	Add 1 % Water charges on “W”				3.35	
	TOTAL				338.35	X
	Add GST on “X” (multiplying factor 0.2127)				71.97	
	TOTAL				410.32	Y
	Add 15% CPOH on “Y”				61.55	
	TOTAL				471.87	Z
	Add Cess @ 1% on “Z”				4.72	
	Cost for 1 no.				476.59	
	Say				476.60	

18.99.6 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8922	Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	530.00	530.00	
	TOTAL				530.00	W
	Add 1 % Water charges on “W”				5.30	
	TOTAL				535.30	X
	Add GST on “X” (multiplying factor 0.2127)				113.86	
	TOTAL				649.16	Y
	Add 15% CPOH on “Y”				97.37	
	TOTAL				746.53	Z
	Add Cess @ 1% on “Z”				7.47	
	Cost of 1 no.				754.00	
	Say				754.00	

18.99.7 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8923	Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X40 mm nominal dia threaded	each	1.00	530.00	530.00	
	TOTAL				530.00	W
	Add 1 % Water charges on “W”				5.30	
	TOTAL				535.30	X
	Add GST on “X” (multiplying factor 0.2127)				113.86	
	TOTAL				649.16	Y
	Add 15% CPOH on “Y”				97.37	
	TOTAL				746.53	Z
	Add Cess @ 1% on “Z”				7.47	
	Cost of 1 no.				754.00	
	Say				754.00	

18.99.8 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8924	Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	790.00	790.00	
	TOTAL				790.00	W
	Add 1 % Water charges on “W”				7.90	
	TOTAL				797.90	X
	Add GST on “X” (multiplying factor 0.2127)				169.71	
	TOTAL				967.61	Y
	Add 15% CPOH on “Y”				145.14	
	TOTAL				1112.75	Z
	Add Cess @ 1% on “Z”				11.13	
	Cost of 1 no.				1123.88	
	Say				1123.90	

18.99.9 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8925	Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	790.00	790.00	
	TOTAL				790.00	W
	Add 1 % Water charges on “W”				7.90	
	TOTAL				797.90	X
	Add GST on “X” (multiplying factor 0.2127)				169.71	
	TOTAL				967.61	Y
	Add 15% CPOH on “Y”				145.14	
	TOTAL				1112.75	Z
	Add Cess @ 1% on “Z”				11.13	
	Cost of 1 no.				1123.88	
	Say				1123.90	

18.99A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Female Threaded Elbow 90°

18.99A.1 For 15 mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3941	Stainless steel Female Threaded Elbow 90° for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	715.00	715.00	
	TOTAL				715.00	W
	Add 1 % Water charges on "W"				7.15	
	TOTAL				722.15	X
	Add GST on "X" (multiplying factor 0.2127)				153.60	
	TOTAL				875.75	Y
	Add 15% CPOH on "Y"				131.36	
	TOTAL				1007.11	Z
	Add Cess @ 1% on "Z"				10.07	
	Cost of 1 no.				1017.18	
	Say				1017.20	

18.99A.2 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3942	Stainless steel Female Threaded Elbow 90° for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	960.00	960.00	
	TOTAL				960.00	W
	Add 1 % Water charges on "W"				9.60	
	TOTAL				969.60	X
	Add GST on "X" (multiplying factor 0.2127)				206.23	
	TOTAL				1175.83	Y
	Add 15% CPOH on "Y"				176.37	
	TOTAL				1352.20	Z
	Add Cess @ 1% on "Z"				13.52	
	Cost of 1 no.				1365.72	
	Say				1365.70	

18.99A.3 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3943	Stainless steel Female Threaded Elbow 90° for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1320.00	1320.00	
	TOTAL				1320.00	W
	Add 1 % Water charges on "W"				13.20	
	TOTAL				1333.20	X
	Add GST on "X" (multiplying factor 0.2127)				283.57	
	TOTAL				1616.77	Y
	Add 15% CPOH on "Y"				242.52	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1859.29	Z
	Add Cess @ 1% on “Z”				18.59	
	Cost for 1 no.				1877.88	
	Say				1877.90	

18.99A.4 For 35mm outer dia X 1-1/4” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3944	Stainless steel Female Threaded Elbow 90° for 35mm outer dia X 1-1/4” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2145.00	2145.00	
	TOTAL				2145.00	W
	Add 1 % Water charges on “W”				21.45	
	TOTAL				2166.45	X
	Add GST on “X” (multiplying factor 0.2127)				460.80	
	TOTAL				2627.25	Y
	Add 15% CPOH on “Y”				394.09	
	TOTAL				3021.34	Z
	Add Cess @ 1% on “Z”				30.21	
	Cost for 1 no.				3051.55	
	Say				3051.55	

18.99A.5 For 42mm outer dia X 1-1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3945	Stainless steel Female Threaded Elbow 90° for 42mm outer dia X 1-1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2335.00	2335.00	
	TOTAL				2335.00	W
	Add 1 % Water charges on “W”				23.35	
	TOTAL				2358.35	X
	Add GST on “X” (multiplying factor 0.2127)				501.62	
	TOTAL				2859.97	Y
	Add 15% CPOH on “Y”				429.00	
	TOTAL				3288.97	Z
	Add Cess @ 1% on “Z”				32.89	
	Cost of 1 no.				3321.86	
	Say				3321.85	

18.99A.6 For 54mm outer dia X 2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3946	Stainless steel Female Threaded Elbow 90° for 54mm outer dia X 2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	3610.00	3610.00	
	TOTAL				3610.00	W
	Add 1 % Water charges on “W”				36.10	
	TOTAL				3646.10	X
	Add GST on “X” (multiplying factor 0.2127)				775.53	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				4421.63	Y
	Add 15% CPOH on "Y"				663.24	
	TOTAL				5084.87	Z
	Add Cess @ 1% on "Z"				50.85	
	Cost of 1 no.				5135.72	
	Say				5135.70	

18.100 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Threaded Elbow 90°

18.100.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8926	Stainless steel Male Threaded Elbow 90° for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	229.00	229.00	
	TOTAL				229.00	W
	Add 1 % Water charges on "W"				2.29	
	TOTAL				231.29	X
	Add GST on "X" (multiplying factor 0.2127)				49.20	
	TOTAL				280.49	Y
	Add 15% CPOH on "Y"				42.07	
	TOTAL				322.56	Z
	Add Cess @ 1% on "Z"				3.23	
	Cost of 1 no.				325.79	
	Say				325.80	

18.100.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8927	Stainless steel Male Threaded Elbow 90° for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	250.00	250.00	
	TOTAL				250.00	W
	Add 1 % Water charges on "W"				2.50	
	TOTAL				252.50	X
	Add GST on "X" (multiplying factor 0.2127)				53.71	
	TOTAL				306.21	Y
	Add 15% CPOH on "Y"				45.93	
	TOTAL				352.14	Z
	Add Cess @ 1% on "Z"				3.52	
	Cost of 1 no.				355.66	
	Say				355.65	

18.100.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8928	Stainless steel Male Threaded Elbow 90° for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	265.00	265.00	
	TOTAL				265.00	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				2.65	
	TOTAL				267.65	X
	Add GST on “X” (multiplying factor 0.2127)				56.93	
	TOTAL				324.58	Y
	Add 15% CPOH on “Y”				48.69	
	TOTAL				373.27	Z
	Add Cess @ 1% on “Z”				3.73	
	Cost of 1 no.				377.00	
	Say				377.00	

18.100.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8929	Stainless steel Male Threaded Elbow 90° for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	285.00	285.00	
	TOTAL				285.00	W
	Add 1 % Water charges on “W”				2.85	
	TOTAL				287.85	X
	Add GST on “X” (multiplying factor 0.2127)				61.23	
	TOTAL				349.08	Y
	Add 15% CPOH on “Y”				52.36	
	TOTAL				401.44	Z
	Add Cess @ 1% on “Z”				4.01	
	Cost of 1 no.				405.45	
	Say				405.45	

18.100.5 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8930	Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	315.00	315.00	
	TOTAL				315.00	W
	Add 1 % Water charges on “W”				3.15	
	TOTAL				318.15	X
	Add GST on “X” (multiplying factor 0.2127)				67.67	
	TOTAL				385.82	Y
	Add 15% CPOH on “Y”				57.87	
	TOTAL				443.69	Z
	Add Cess @ 1% on “Z”				4.44	
	Cost of 1 no.				448.13	
	Say				448.15	

18.100.6 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8931	Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	315.00	315.00	
	TOTAL				315.00	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				3.15	
	TOTAL				318.15	X
	Add GST on “X” (multiplying factor 0.2127)				67.67	
	TOTAL				385.82	Y
	Add 15% CPOH on “Y”				57.87	
	TOTAL				443.69	Z
	Add Cess @ 1% on “Z”				4.44	
	Cost of 1 no.				448.13	
	Say				448.15	

18.100.7 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8932	Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	480.00	480.00	
	TOTAL				480.00	W
	Add 1 % Water charges on “W”				4.80	
	TOTAL				484.80	X
	Add GST on “X” (multiplying factor 0.2127)				103.12	
	TOTAL				587.92	Y
	Add 15% CPOH on “Y”				88.19	
	TOTAL				676.11	Z
	Add Cess @ 1% on “Z”				6.76	
	Cost of 1 no.				682.87	
	Say				682.85	

18.100.8 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8933	Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X40 mm nominal dia threaded	each	1.00	530.00	530.00	
	TOTAL				530.00	W
	Add 1 % Water charges on “W”				5.30	
	TOTAL				535.30	X
	Add GST on “X” (multiplying factor 0.2127)				113.86	
	TOTAL				649.16	Y
	Add 15% CPOH on “Y”				97.37	
	TOTAL				746.53	Z
	Add Cess @ 1% on “Z”				7.47	
	Cost of 1 no.				754.00	
	Say				754.00	

18.100.9 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8934	Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	765.00	765.00	
	TOTAL				765.00	W
	Add 1 % Water charges on “W”				7.65	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				772.65	X
	Add GST on “X” (multiplying factor 0.2127)				164.34	
	TOTAL				936.99	Y
	Add 15% CPOH on “Y”				140.55	
	TOTAL				1077.54	Z
	Add Cess @ 1% on “Z”				10.78	
	Cost of 1 no.				1088.32	
	Say				1088.30	

18.100.10 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8935	Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	835.00	835.00	
	TOTAL				835.00	W
	Add 1 % Water charges on “W”				8.35	
	TOTAL				843.35	X
	Add GST on “X” (multiplying factor 0.2127)				179.38	
	TOTAL				1022.73	Y
	Add 15% CPOH on “Y”				153.41	
	TOTAL				1176.14	Z
	Add Cess @ 1% on “Z”				11.76	
	Cost of 1 no.				1187.90	
	Say				1187.90	

18.100.A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Threaded Elbow 90°

18.100A.1 For 15mm outer dia X 1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3947	Stainless steel Male Threaded Elbow 90° for 15mm outer dia X 1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	585.00	585.00	
	TOTAL				585.00	W
	Add 1 % Water charges on “W”				5.85	
	TOTAL				590.85	X
	Add GST on “X” (multiplying factor 0.2127)				125.67	
	TOTAL				716.52	Y
	Add 15% CPOH on “Y”				107.48	
	TOTAL				824.00	Z
	Add Cess @ 1% on “Z”				8.24	
	Cost of 1 no.				832.24	
	Say				832.25	

18.100A.2 For 22mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3948	Stainless steel Male Threaded Elbow 90° for 22mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	880.00	880.00	
	TOTAL				880.00	W
	Add 1 % Water charges on "W"				8.80	
	TOTAL				888.80	X
	Add GST on "X" (multiplying factor 0.2127)				189.05	
	TOTAL				1077.85	Y
	Add 15% CPOH on "Y"				161.68	
	TOTAL				1239.53	Z
	Add Cess @ 1% on "Z"				12.40	
	Cost of 1 no.				1251.93	
	Say				1251.95	

18.100A.3 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3949	Stainless steel Male Threaded Elbow 90° for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1170.00	1170.00	
	TOTAL				1170.00	W
	Add 1 % Water charges on "W"				11.70	
	TOTAL				1181.70	X
	Add GST on "X" (multiplying factor 0.2127)				251.35	
	TOTAL				1433.05	Y
	Add 15% CPOH on "Y"				214.96	
	TOTAL				1648.01	Z
	Add Cess @ 1% on "Z"				16.48	
	Cost of 1 no.				1664.49	
	Say				1664.50	

18.100A.4 For 35mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3950	Stainless steel Male Threaded Elbow 90° for 35mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1610.00	1610.00	
	TOTAL				1610.00	W
	Add 1 % Water charges on "W"				16.10	
	TOTAL				1626.10	X
	Add GST on "X" (multiplying factor 0.2127)				345.87	
	TOTAL				1971.97	Y
	Add 15% CPOH on "Y"				295.80	
	TOTAL				2267.77	Z
	Add Cess @ 1% on "Z"				22.68	
	Cost of 1 no.				2290.45	
	Say				2290.45	

18.100A.5 For 42mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3951	Stainless steel Male Threaded Elbow 90° for 42mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2950.00	2950.00	
	TOTAL				2950.00	W
	Add 1 % Water charges on "W"				29.50	
	TOTAL				2979.50	X
	Add GST on "X" (multiplying factor 0.2127)				633.74	
	TOTAL				3613.24	Y
	Add 15% CPOH on "Y"				541.99	
	TOTAL				4155.23	Z
	Add Cess @ 1% on "Z"				41.55	
	Cost of 1 no.				4196.78	
	Say				4196.80	

18.100A.6 For 54mm outer dia X 2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3952	Stainless steel Male Threaded Elbow 90° for 54mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	3355.00	3355.00	
	TOTAL				3355.00	W
	Add 1 % Water charges on "W"				33.55	
	TOTAL				3388.55	X
	Add GST on "X" (multiplying factor 0.2127)				720.74	
	TOTAL				4109.29	Y
	Add 15% CPOH on "Y"				616.39	
	TOTAL				4725.68	Z
	Add Cess @ 1% on "Z"				47.26	
	Cost of 1 no.				4772.94	
	Say				4772.95	

18.101 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Cap

18.101.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8936	Stainless steel Cap for 15.88 mm outer dia pipe	each	1.00	41.00	41.00	
	TOTAL				41.00	W
	Add 1 % Water charges on "W"				0.41	
	TOTAL				41.41	X
	Add GST on "X" (multiplying factor 0.2127)				8.81	
	TOTAL				50.22	Y
	Add 15% CPOH on "Y"				7.53	
	TOTAL				57.75	Z
	Add Cess @ 1% on "Z"				0.58	
	Cost of 1 no.				58.33	
	Say				58.35	

18.101.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8937	Stainless steel Cap for 22.22 mm outer dia pipe	each	1.00	60.00	60.00	
	TOTAL				60.00	W
	Add 1 % Water charges on “W”				0.60	
	TOTAL				60.60	X
	Add GST on “X” (multiplying factor 0.2127)				12.89	
	TOTAL				73.49	Y
	Add 15% CPOH on “Y”				11.02	
	TOTAL				84.51	Z
	Add Cess @ 1% on “Z”				0.85	
	Cost of 1 no.				85.36	
	Say				85.35	

18.101.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8938	Stainless steel Cap for 28.58 mm outer dia pipe	each	1.00	86.00	86.00	
	TOTAL				86.00	W
	Add 1 % Water charges on “W”				0.86	
	TOTAL				86.86	X
	Add GST on “X” (multiplying factor 0.2127)				18.48	
	TOTAL				105.34	Y
	Add 15% CPOH on “Y”				15.80	
	TOTAL				121.14	Z
	Add Cess @ 1% on “Z”				1.21	
	Cost of 1 no.				122.35	
	Say				122.35	

18.101.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8939	Stainless steel Cap for 34.00 mm outer dia pipe	each	1.00	165.00	165.00	
	TOTAL				165.00	W
	Add 1 % Water charges on “W”				1.65	
	TOTAL				166.65	X
	Add GST on “X” (multiplying factor 0.2127)				35.45	
	TOTAL				202.10	Y
	Add 15% CPOH on “Y”				30.32	
	TOTAL				232.42	Z
	Add Cess @ 1% on “Z”				2.32	
	Cost of 1 no.				234.74	
	Say				234.75	

18.101.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8940	Stainless steel Cap for 42.70 mm outer dia pipe	each	1.00	241.00	241.00	
	TOTAL				241.00	W
	Add 1 % Water charges on "W"				2.41	
	TOTAL				243.41	X
	Add GST on "X" (multiplying factor 0.2127)				51.77	
	TOTAL				295.18	Y
	Add 15% CPOH on "Y"				44.28	
	TOTAL				339.46	Z
	Add Cess @ 1% on "Z"				3.39	
	Cost of 1 no.				342.85	
	Say				342.85	

18.101.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8941	Stainless steel Cap for 48.60 mm outer dia pipe	each	1.00	300.00	300.00	
	TOTAL				300.00	W
	Add 1 % Water charges on "W"				3.00	
	TOTAL				303.00	X
	Add GST on "X" (multiplying factor 0.2127)				64.45	
	TOTAL				367.45	Y
	Add 15% CPOH on "Y"				55.12	
	TOTAL				422.57	Z
	Add Cess @ 1% on "Z"				4.23	
	Cost of 1 no.				426.80	
	Say				426.80	

18.101A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Cap

18.101A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3953	Stainless steel Cap for 15 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	355.00	355.00	
	TOTAL				355.00	W
	Add 1 % Water charges on "W"				3.55	
	TOTAL				358.55	X
	Add GST on "X" (multiplying factor 0.2127)				76.26	
	TOTAL				434.81	Y
	Add 15% CPOH on "Y"				65.22	
	TOTAL				500.03	Z
	Add Cess @ 1% on "Z"				5.00	
	Cost of 1 no.				505.03	
	Say				505.05	

18.101A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3954	Stainless steel Cap for 22 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	460.00	460.00	
	TOTAL				460.00	W
	Add 1 % Water charges on “W”				4.60	
	TOTAL				464.60	X
	Add GST on “X” (multiplying factor 0.2127)				98.82	
	TOTAL				563.42	Y
	Add 15% CPOH on “Y”				84.51	
	TOTAL				647.93	Z
	Add Cess @ 1% on “Z”				6.48	
	Cost of 1 no.				654.41	
	Say				654.40	

18.101A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3955	Stainless steel Cap for 28 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	575.00	575.00	
	TOTAL				575.00	W
	Add 1 % Water charges on “W”				5.75	
	TOTAL				580.75	X
	Add GST on “X” (multiplying factor 0.2127)				123.53	
	TOTAL				704.28	Y
	Add 15% CPOH on “Y”				105.64	
	TOTAL				809.92	Z
	Add Cess @ 1% on “Z”				8.10	
	Cost of 1 no.				818.02	
	Say				818.00	

18.101A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3956	Stainless steel Cap for 35 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	805.00	805.00	
	TOTAL				805.00	W
	Add 1 % Water charges on “W”				8.05	
	TOTAL				813.05	X
	Add GST on “X” (multiplying factor 0.2127)				172.94	
	TOTAL				985.99	Y
	Add 15% CPOH on “Y”				147.90	
	TOTAL				1133.89	Z
	Add Cess @ 1% on “Z”				11.34	
	Cost of 1 no.				1145.23	
	Say				1145.25	

18.101A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3957	Stainless steel Cap for 42 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1750.00	1750.00	
	TOTAL				1750.00	W
	Add 1 % Water charges on "W"				17.50	
	TOTAL				1767.50	X
	Add GST on "X" (multiplying factor 0.2127)				375.95	
	TOTAL				2143.45	Y
	Add 15% CPOH on "Y"				321.52	
	TOTAL				2464.97	Z
	Add Cess @ 1% on "Z"				24.65	
	Cost of 1 no.				2489.62	
	Say				2489.60	

18.101A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3958	Stainless steel Cap for 54 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1925.00	1925.00	
	TOTAL				1925.00	W
	Add 1 % Water charges on "W"				19.25	
	TOTAL				1944.25	X
	Add GST on "X" (multiplying factor 0.2127)				413.54	
	TOTAL				2357.79	Y
	Add 15% CPOH on "Y"				353.67	
	TOTAL				2711.46	Z
	Add Cess @ 1% on "Z"				27.11	
	Cost of 1 no.				2738.57	
	Say				2738.55	

18.102 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Pipe Bridge

18.102.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8942	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	1.00	96.00	96.00	
	TOTAL				96.00	W
	Add 1 % Water charges on "W"				0.96	
	TOTAL				96.96	X
	Add GST on "X" (multiplying factor 0.2127)				20.62	
	TOTAL				117.58	Y
	Add 15% CPOH on "Y"				17.64	
	TOTAL				135.22	Z
	Add Cess @ 1% on "Z"				1.35	
	Cost of 1 no.				136.57	
	Say				136.55	

18.102.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8943	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	1.00	169.00	169.00	
	TOTAL				169.00	W
	Add 1 % Water charges on “W”				1.69	
	TOTAL				170.69	X
	Add GST on “X” (multiplying factor 0.2127)				36.31	
	TOTAL				207.00	Y
	Add 15% CPOH on “Y”				31.05	
	TOTAL				238.05	Z
	Add Cess @ 1% on “Z”				2.38	
	Cost of 1 no.				240.43	
	Say				240.45	

18.102.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
8944	Stainless steel Pipe Bridge for 28.58 mm outer dia pipe	each	1.00	272.00	272.00	
	TOTAL				272.00	W
	Add 1 % Water charges on “W”				2.72	
	TOTAL				274.72	X
	Add GST on “X” (multiplying factor 0.2127)				58.43	
	TOTAL				333.15	Y
	Add 15% CPOH on “Y”				49.97	
	TOTAL				383.12	Z
	Add Cess @ 1% on “Z”				3.83	
	Cost for 1 no.				386.95	
	Say				386.95	

18.102A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Pipe Bridge

18.102A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3959	Stainless steel Pipe Bridge for 15 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	460.00	460.00	
	TOTAL				460.00	W
	Add 1 % Water charges on “W”				4.60	
	TOTAL				464.60	X
	Add GST on “X” (multiplying factor 0.2127)				98.82	
	TOTAL				563.42	Y
	Add 15% CPOH on “Y”				84.51	
	TOTAL				647.93	Z
	Add Cess @ 1% on “Z”				6.48	
	Cost of 1 no.				654.41	
	Say				654.40	

18.102A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3960	Stainless steel Pipe Bridge for 22 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1240.00	1240.00	
	TOTAL				1240.00	W
	Add 1 % Water charges on "W"				12.40	
	TOTAL				1252.40	X
	Add GST on "X" (multiplying factor 0.2127)				266.39	
	TOTAL				1518.79	Y
	Add 15% CPOH on "Y"				227.82	
	TOTAL				1746.61	Z
	Add Cess @ 1% on "Z"				17.47	
	Cost of 1 no.				1764.08	
	Say				1764.10	

18.102A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3961	Stainless steel Pipe Bridge for 28 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1705.00	1705.00	
	TOTAL				1705.00	W
	Add 1 % Water charges on "W"				17.05	
	TOTAL				1722.05	X
	Add GST on "X" (multiplying factor 0.2127)				366.28	
	TOTAL				2088.33	Y
	Add 15% CPOH on "Y"				313.25	
	TOTAL				2401.58	Z
	Add Cess @ 1% on "Z"				24.02	
	Cost for 1 no.				2425.60	
	Say				2425.60	

18.103 Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Union

18.103.1 For 15mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3962	Stainless steel Male Union for 15mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	990.00	990.00	
	TOTAL				990.00	W
	Add 1 % Water charges on "W"				9.90	
	TOTAL				999.90	X
	Add GST on "X" (multiplying factor 0.2127)				212.68	
	TOTAL				1212.58	Y
	Add 15% CPOH on "Y"				181.89	
	TOTAL				1394.47	Z
	Add Cess @ 1% on "Z"				13.94	
	Cost of 1 no.				1408.41	
	Say				1408.40	

18.103.2 For 22mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3963	Stainless steel Male Union for 22mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1000.00	1000.00	
	TOTAL				1000.00	W
	Add 1 % Water charges on "W"				10.00	
	TOTAL				1010.00	X
	Add GST on "X" (multiplying factor 0.2127)				214.83	
	TOTAL				1224.83	Y
	Add 15% CPOH on "Y"				183.72	
	TOTAL				1408.55	Z
	Add Cess @ 1% on "Z"				14.09	
	Cost of 1 no.				1422.64	
	Say				1422.65	

18.103.3 For 22mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3964	Stainless steel Male Union for 22mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1145.00	1145.00	
	TOTAL				1145.00	W
	Add 1 % Water charges on "W"				11.45	
	TOTAL				1156.45	X
	Add GST on "X" (multiplying factor 0.2127)				245.98	
	TOTAL				1402.43	Y
	Add 15% CPOH on "Y"				210.36	
	TOTAL				1612.79	Z
	Add Cess @ 1% on "Z"				16.13	
	Cost of 1 no.				1628.92	
	Say				1628.90	

18.103.4 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3965	Stainless steel Male Union for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2020.00	2020.00	
	TOTAL				2020.00	W
	Add 1 % Water charges on "W"				20.20	
	TOTAL				2040.20	X
	Add GST on "X" (multiplying factor 0.2127)				433.95	
	TOTAL				2474.15	Y
	Add 15% CPOH on "Y"				371.12	
	TOTAL				2845.27	Z
	Add Cess @ 1% on "Z"				28.45	
	Cost of 1 no.				2873.72	
	Say				2873.70	

18.103.5 For 35mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3966	Stainless steel Male Union for 35mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2110.00	2110.00	
	TOTAL				2110.00	W
	Add 1 % Water charges on "W"				21.10	
	TOTAL				2131.10	X
	Add GST on "X" (multiplying factor 0.2127)				453.28	
	TOTAL				2584.38	Y
	Add 15% CPOH on "Y"				387.66	
	TOTAL				2972.04	Z
	Add Cess @ 1% on "Z"				29.72	
	Cost of 1 no.				3001.76	
	Say				3001.75	

18.103.6 For 42mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3967	Stainless steel Male Union for 42mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2380.00	2380.00	
	TOTAL				2380.00	W
	Add 1 % Water charges on "W"				23.80	
	TOTAL				2403.80	X
	Add GST on "X" (multiplying factor 0.2127)				511.29	
	TOTAL				2915.09	Y
	Add 15% CPOH on "Y"				437.26	
	TOTAL				3352.35	Z
	Add Cess @ 1% on "Z"				33.52	
	Cost of 1 no.				3385.87	
	Say				3385.85	

18.103.7 For 54mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3968	Stainless steel Male Union for 54mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	4120.00	4120.00	
	TOTAL				4120.00	W
	Add 1 % Water charges on "W"				41.20	
	TOTAL				4161.20	X
	Add GST on "X" (multiplying factor 0.2127)				885.09	
	TOTAL				5046.29	Y
	Add 15% CPOH on "Y"				756.94	
	TOTAL				5803.23	Z
	Add Cess @ 1% on "Z"				58.03	
	Cost of 1 no.				5861.26	
	Say				5861.25	

18.104 Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Female Union

18.104.1 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3969	Stainless steel Female Union for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1060.00	1060.00	
	TOTAL				1060.00	W
	Add 1 % Water charges on "W"				10.60	
	TOTAL				1070.60	X
	Add GST on "X" (multiplying factor 0.2127)				227.72	
	TOTAL				1298.32	Y
	Add 15% CPOH on "Y"				194.75	
	TOTAL				1493.07	Z
	Add Cess @ 1% on "Z"				14.93	
	Cost of 1 no.				1508.00	
	Say				1508.00	

18.104.2 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3970	Stainless steel Female Union for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1430.00	1430.00	
	TOTAL				1430.00	W
	Add 1 % Water charges on "W"				14.30	
	TOTAL				1444.30	X
	Add GST on "X" (multiplying factor 0.2127)				307.20	
	TOTAL				1751.50	Y
	Add 15% CPOH on "Y"				262.73	
	TOTAL				2014.23	Z
	Add Cess @ 1% on "Z"				20.14	
	Cost of 1 no.				2034.37	
	Say				2034.35	

18.105 Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Female Transition Elbow / FTE

18.105.1 For 15mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3971	Stainless steel Female Transition Elbow / FTE for 15mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	725.00	725.00	
	TOTAL				725.00	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				7.25	
	TOTAL				732.25	X
	Add GST on “X” (multiplying factor 0.2127)				155.75	
	TOTAL				888.00	Y
	Add 15% CPOH on “Y”				133.20	
	TOTAL				1021.20	Z
	Add Cess @ 1% on “Z”				10.21	
	Cost of 1 no.				1031.41	
	Say				1031.40	

18.105.2 For 22mm outer dia X 1/2” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3972	Stainless steel Female Transition Elbow / FTE for 22mm outer dia X 1/2” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	970.00	970.00	
	TOTAL				970.00	W
	Add 1 % Water charges on “W”				9.70	
	TOTAL				979.70	X
	Add GST on “X” (multiplying factor 0.2127)				208.38	
	TOTAL				1188.08	Y
	Add 15% CPOH on “Y”				178.21	
	TOTAL				1366.29	Z
	Add Cess @ 1% on “Z”				13.66	
	Cost of 1 no.				1379.95	
	Say				1379.95	

18.105.3 For 22mm outer dia X 3/4” nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no.					
	MATERIAL					
3973	Stainless steel Female Transition Elbow / FTE for 22mm outer dia X 3/4” nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1005.00	1005.00	
	TOTAL				1005.00	W
	Add 1 % Water charges on “W”				10.05	
	TOTAL				1015.05	X
	Add GST on “X” (multiplying factor 0.2127)				215.90	
	TOTAL				1230.95	Y
	Add 15% CPOH on “Y”				184.64	
	TOTAL				1415.59	Z
	Add Cess @ 1% on “Z”				14.16	
	Cost of 1 no.				1429.75	
	Say				1429.75	

SUB HEAD : 19.0

DRAINAGE

19.1 Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :

19.1.1 100 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	55.00	77.00	4235.00	
	Added 10% allowance for breakage					
2224	Carriage of S.W. pipes 100 mm dia	100 metre	0.33	0.00	0.00	
	Added 10% allowance for breakage					
	Cement for 50 joints = 0.019 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.019	5156.00	97.96	
2209	Carriage of Cement	tonne	0.019	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.01	980.00	9.80	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.01	0.00	0.00	
1881	Spun yarn or plain gaskin @ 0.09 kg per joint = 0.09x50 = 4.50 kg	kilogram	4.50	61.00	274.50	
	LABOUR					
0123	Mason 1st class	day	1.00	897.00	897.00	
0124	Mason 2nd class	day	1.00	816.00	816.00	
0114	Beldar	day	3.00	736.00	2208.00	
0101	Bhisti	day	1.00	816.00	816.00	
	TOTAL				9354.26	W
	Add 1 % Water charges on “W”				93.54	
	TOTAL				9447.80	X
	Add GST on “X” (multiplying factor 0.2127)				2009.55	
	TOTAL				11457.35	Y
	Add 15% CPOH on “Y”				1718.60	
	TOTAL				13175.95	Z
	Add Cess @ 1% on “Z”				131.76	
	Cost of 30 metre				13307.71	
	Cost of 1 metre				443.59	
	Say				443.60	

19.1.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
1855	Stoneware pipes grade A (60 cm long) 150 mm dia	each	55.00	138.00	7590.00	
	Added 10% allowance for breakage					
2225	Carriage of S.W. pipes 150 mm dia	100 metre	0.33	0.00	0.00	
	Added 10% allowance for breakage					
	Cement of 50 joints = 0.036 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.036	5156.00	185.62	
2209	Carriage of Cement	tonne	0.036	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.019	980.00	18.62	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.019	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1881	Spun yarn or plain gaskin @ 0.18 kg per joint = 0.18x50 = 9 kg	kilogram	9.00	61.00	549.00	
	LABOUR					
0123	Mason 1st class	day	1.50	897.00	1345.50	
0124	Mason 2nd class	day	1.50	816.00	1224.00	
0114	Beldar	day	4.00	736.00	2944.00	
0101	Bhisti	day	1.00	816.00	816.00	
	TOTAL				14672.74	W
	Add 1 % Water charges on “W”				146.73	
	TOTAL				14819.47	X
	Add GST on “X” (multiplying factor 0.2127)				3152.10	
	TOTAL				17971.57	Y
	Add 15% CPOH on “Y”				2695.74	
	TOTAL				20667.31	Z
	Add Cess @ 1% on “Z”				206.67	
	Cost of 30 metre				20873.98	
	Cost of 1 metre				695.80	
	Say				695.80	

19.1.3 200 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
1856	Stoneware pipes grade A (60 cm long) 200 mm dia Added 10% allowance for breakage	each	55.00	220.00	12100.00	
2226	Carriage of S.W. pipes 200 mm dia Added 10% allowance for breakage Cement of 50 joints = 0.053 tonne	100 metre	0.33	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.053	5156.00	273.27	
2209	Carriage of Cement	tonne	0.053	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.028	980.00	27.44	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.028	0.00	0.00	
1881	Spun yarn or plain gaskin @ 0.24 kg per joint = 0.24x50 =12.00 kg	kilogram	12.00	61.00	732.00	
	LABOUR					
0123	Mason 1st class	day	1.75	897.00	1569.75	
0124	Mason 2nd class	day	1.75	816.00	1428.00	
0114	Beldar	day	4.50	736.00	3312.00	
0101	Bhisti	day	1.25	816.00	1020.00	
	TOTAL				20462.46	W
	Add 1 % Water charges on “W”				204.62	
	TOTAL				20667.08	X
	Add GST on “X” (multiplying factor 0.2127)				4395.89	
	TOTAL				25062.97	Y
	Add 15% CPOH on “Y”				3759.45	
	TOTAL				28822.42	Z
	Add Cess @ 1% on “Z”				288.22	
	Cost of 30 metre				29110.64	
	Cost of 1 metre				970.35	
	Say				970.35	

19.1.4 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
1858	Stoneware pipes grade A (60 cm long) 250 mm dia Added 10% allowance for breakage	each	55.00	385.00	21175.00	
2228	Carriage of S.W. pipes 250 mm dia Added 10% allowance for breakage	100 metre	0.33	0.00	0.00	
	Cement of 50 joints = 0.094 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.094	5156.00	484.66	
2209	Carriage of Cement	tonne	0.094	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.05	980.00	49.00	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.05	0.00	0.00	
1881	Spun yarn or plain gaskin @ 0.30 kg per joint = 0.30x50= 15.00 kg	kilogram	15.00	61.00	915.00	
	LABOUR					
0123	Mason 1st class	day	2.25	897.00	2018.25	
0124	Mason 2nd class	day	2.25	816.00	1836.00	
0114	Beldar	day	5.50	736.00	4048.00	
0101	Bhisti	day	1.50	816.00	1224.00	
	TOTAL				31749.91	W
	Add 1 % Water charges on “W”				317.50	
	TOTAL				32067.41	X
	Add GST on “X” (multiplying factor 0.2127)				6820.74	
	TOTAL				38888.15	Y
	Add 15% CPOH on “Y”				5833.22	
	TOTAL				44721.37	Z
	Add Cess @ 1% on “Z”				447.21	
	Cost of 30 metre				45168.58	
	Cost of 1 metre				1505.62	
	Say				1505.60	

19.1.5 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
1859	Stoneware pipes grade A (60 cm long) 300 mm dia Added 10% allowance for breakage	each	55.00	578.00	31790.00	
2229	Carriage of S.W. pipes 300 mm dia Added 10% allowance for breakage	100 metre	0.33	0.00	0.00	
	Cement of 50 joints = 0.125 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.125	5156.00	644.50	
2209	Carriage of Cement	tonne	0.125	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.075	980.00	73.50	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.075	0.00	0.00	
1881	Spun yarn or plain gaskin @ 0.36 kg / joint = 0.36x50 =18.00 kg	kilogram	18.00	61.00	1098.00	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	2.50	897.00	2242.50	
0124	Mason 2nd class	day	2.50	816.00	2040.00	
0114	Beldar	day	6.00	736.00	4416.00	
0101	Bhisti	day	1.50	816.00	1224.00	
	TOTAL				43528.50	W
	Add 1 % Water charges on "W"				435.29	
	TOTAL				43963.79	X
	Add GST on "X" (multiplying factor 0.2127)				9351.10	
	TOTAL				53314.89	Y
	Add 15% CPOH on "Y"				7997.23	
	TOTAL				61312.12	Z
	Add Cess @ 1% on "Z"				613.12	
	Cost of 30 metre				61925.24	
	Cost of 1 metre				2064.17	
	Say				2064.15	

19.2 Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :

19.2.1 100 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W² / 4) - (3.14 x D² / 4) = W² x (0.5 + 3.14 / 8) - (3.14 x D² / 4) Where W = D + X D = 100 + 12 + 12 = 124 mm or 12.4 cm X = 300 mm as trench depth is less than 1200 mm W = 12.4 + 30 = 42.4 Area= 42.4² x (0.5 + 3.14/ 8) - (3.14 x 12.4²/4) = 1484 sqcm = 0.1484 sqm Say 0.148 sqm For 10 m length qty. of concrete reqd. = 1.48 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.48	6518.60	9647.53	A
	Cost of 10 metre				9647.53	
	Cost of metre				964.75	
	Say				964.75	

19.2.2 150 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W² / 4)-(3.14 x D² / 4) = W² x (0.5 + 3.14 / 8) - (3.14 x D² / 4) Where W = D + X D = 150 + 16 + 16 = 182 mm or 18.2 cm X = 300 mm as trench depth is less than 1200 mm W = 18.2 + 30 = 48.2					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Area = 48.2² x (0.5 + 3.14/ 8) - (3.14 x 18.2 ²/4) = 1807.66 sqcm = 0.1808 sqm. Say 0.181 sqm For 10 m length qty. of concrete reqd. = 1.81 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.81	6518.60	11798.67	A
	Cost of 10 metre				11798.67	
	Cost of metre				1179.87	
	Say				1179.85	

19.2.3 200 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W² / 4)- (3.14 x D² / 4) = W² x (0.5 + 3.14 / 8) - (3.14 x D² / 4) Where W = D + X D = 200 + 17 + 17 = 234 mm or 23.4 cm X = 300 mm as trench depth is less than 1200 mm W = 23.4 + 30 = 53.4 Area = 53.4² x (0.5 + 3.14 / 8) - (3.14 x 23.4²/4) = 2115 sqcm = 0.2115 sqm Say 0.211 sqm For 10 m length qty. of concrete reqd. = 2.11 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	2.11	6518.60	13754.25	A
	Cost of 10 metre				13754.25	
	Cost of metre				1375.43	
	Say				1375.45	

19.2.4 250 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W² / 4)- (3.14 x D² / 4) = W² x (0.5 + 3.14 / 8) - (3.14 x D² / 4) Where W = D + X D = 250 + 20 + 20 = 290 mm or 29.0 cm X = 300 mm as trench depth is less than 1200 mm W = 29 + 30 = 59 Area= 59² x (0.5 + 3.14/ 8) - (3.14 x 29²/4) = 2447 sqcm = 0.2447 sqm. Say 0.244 sqm For 10 m length qty. of concrete reqd. = 2.44 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	2.44	6518.60	15905.38	A
	Cost of 10 metre				15905.38	
	Cost of metre				1590.54	
	Say				1590.55	

19.3 Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :

19.3.1 100 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 metre Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q) -(3.14/2)R² = WD1+R²(cot Q-3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 100 + 12 +12 = 124 mm W = 124 + 300 = 424 mm D1 = Depth = 100 + (½ x 124) = 162 mm R = 62 mm Sin Q = (2x62)/424 = 0.292 therefor Q = 17°0' Hence Tan Q = 0.3057 Area = 424 x 162 + (62)² (Cot Q - 3.14 + Q) = [68688 + 3844 (1/0.3057 - 180° + 17°0')] sqmm = [68688 + 3844 (3.27 - 163°0' x 3.14/180)] sqmm = (68688 + 3844 x 0.43) sqmm = (68688 + 1652.92) sqmm = 70340.92 sqmm Say 70341 sqmm or 0.07034 sqm For 100 m length qty. of concrete reqd. = 0.07034x100 = 7.034 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	7.034	6518.60	45851.83	A
	Cost of 100 metre				45851.83	
	Cost per metre				458.52	
	Say				458.50	

19.3.2 150 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q)-(3.14/2)R² = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 150 + 16+ 16 = 182 mm W = 182 + 300 = 482 mm D1 = Depth = 150 + (½ x 182) = 241 mm R = 91 mm Sin Q = (2x91)/482 = 0.3776 therefor Q = 22°12' Hence Tan Q = 0.4081					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Area = 482 x 241 + (91)² (Cot Q - 3.14 + Q) = [116162 + 8281 (1/0.4081 - 180°+ 22°12')] sqmm = [116162 + 8281 (2.45 - 157°48' x3.14/180)] sqmm = [116162 + 8281 x (2.45-2.75)] sqmm = [116162 + 8281 x (-0.30)] sqmm = (116162 - 2484.3) sqmm = 113677.7 sqmm Say 113677.7 sqmm or 0.1136777 sqm For 10 m length qty. of concrete reqd. = 0.1136777x10 = 1.136777 cum. Say 1.14 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.14	6518.60	7431.20	A
	Cost of 10 metre				7431.20	
	Cost per metre				743.12	
	Say				743.10	

19.3.3 200 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q) - (3.14/2)R2 = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 200+ 17 + 17 = 234 mm W = 234 + 300 = 534 mm D1 = Depth = 150 + (½ x 234) = 267 mm R = 117 mm Sin Q = (2x117)/534 = 0.4382 therefor Q= 26°0' Hence Tan Q = 0.4877 Area = 534 x 267 + (117)² (Cot Q - 3.14 + Q) = [142578 + 13689 (1/0.4877 - 180°+ 26°0')] sqmm = [142578 + 13689 (2.05 - 154°0' x 3.14/180)] sqmm = [142578 + 13689 x (2.05-2.69)] sqmm = [142578 + 13689 x (-0.64)] sqmm = (142578 - 8760.96) sqmm = 133817.04 sqmm Say 133817 sqmm or 0.134 sqm For 10 m length qty. of concrete reqd. = 0.134x10 = 1.34 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.34	6518.60	8734.92	A
	Cost of 10 metre				8734.92	
	Cost per metre				873.49	
	Say				873.50	

19.3.4 250 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q)-(3.14/2)R2 = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 250 + 20 + 20 = 290 mm W = 290 + 300 = 590 mm D1 = Depth = 150 + (½ x 290) = 295 mm R = 145 mm Sin Q = (2x145)/590 = 0.49154 therefor Q = 29°26' Hence Tan Q = 0.5635 Area = 590 x 295 + (145)² (Cot Q - 3.14 + Q) = [174050 + 21025 (1/0.5635 - 180°+ 29°26')] sqmm = [174050 + 21025 (1.77 - 150°34' x 3.14/180)] sqmm = [174050 + 21025 x (1.77-2.63)] sqmm = [174050 + 21025 x (-0.86)] sqmm = (174050 - 18081.5) sqmm = 155968.5 sqmm Say 155968 sqmm or 0.156 sqm For 10 m length qty. of concrete reqd. = 0.156x10 = 1.56 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.56	6518.60	10169.02	A
	Cost of 10 metre				10169.02	
	Cost per metre				1016.90	
	Say				1016.90	

19.3.5 300 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q)-(3.14/2)R2 = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 300 + 25 + 25 = 350 mm W = 350 + 300 = 650 mm D1 = Depth = 150 + (½ x 350) = 325 mm R = 175 mm Sin Q = (2x175)/650 = 0.5385 therefor Q = 32°34' Hence Tan Q = 0.6387 Area = 650 x 325 + (175)² (Cot Q - 3.14 + Q)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	= [211250 + 30625 (1/0.6387 - 180°+ 32°34')] sqmm = [211250 + 30625 (1.566 - 147°26' x 3.14/180)] sqmm = [211250 + 30625 x (1.566-2.571)] sqmm = [211250 + 30625 x (-1.005)] sqmm = [211250 - 30778.13) sqmm = 180471.87 sqmm Say 0.180 sqm For 10 m length qty. of concrete reqd. = 0.180x10 = 1.80 cum					
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.80	6518.60	11733.48	A
	Cost of 10 metre				11733.48	
	Cost per metre				1173.35	
	Say				1173.35	

19.4 Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:

19.4.1 100x100 mm size P type

19.4.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one gully tarp					
1900	S.W. gully trap P type 100x100 mm	each	1.00	127.00	127.00	
1364	C.I. grating 100x100 mm	each	1.00	40.00	40.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	525.00	525.00	
9977	Carriage of materials	L.S.	4.50	2.27	10.22	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.345÷3x[0.09+0.01+(0.09x0.01)1/2] = 0.015 cum 3.14/4x(0.124)²x0.47 = 0.006 cum Total= 0.021 cum Net quantity 0.107 cum (-) 0.021 cum = 0.086 cum say 0.09 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.09	6189.65	557.07	A
	Brick work with 7.5 class designation brick in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum. say 0.13 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	7370.65	958.18	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	1.66x0.115x0.04 m = 0.008 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.008	7878.50	63.03	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.358x(1.20+0.40)] = 0.286 sqm. say 0.29 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	449.55	130.37	A
	TOTAL				2410.87	W
	Add 1 % Water charges on “W-A”				7.02	
	TOTAL				2417.89	X
	Add GST on “X-A” (multiplying factor 0.2127)				150.86	
	TOTAL				2568.75	Y
	Add 15% CPOH on “Y-A”				129.02	
	TOTAL				2697.77	Z
	Add Cess @ 1% on “Z-A”				9.89	
	Cost of each				2707.66	
	Say				2707.65	

19.4.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detaila of cost of one gully tarp					
1900	S.W. gully trap P type 100x100 mm	each	1.00	127.00	127.00	
1364	C.I. grating 100x100 mm	each	1.00	40.00	40.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	525.00	525.00	
9977	Carriage of materials	L.S.	4.50	2.27	10.22	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	0.68x0.68x0.10 m = 0.046 cum					
	Concrete around trap					
	0.30x0.30x0.675 m = 0.061 cum					
	Total=0.107 cum					
	Deduct:					
	0.345÷3x[0.09+0.01+(0.09x0.01)1/2]= 0.015 cum					
	3.14/4x(0.124)²x0.47 = 0.006 cum					
	Total = 0.021 cum					
	Net quantity 0.107 cum (-) 0.021 cum = 0.086 cum say 0.09 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.09	6189.65	557.07	A
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) cement mortar 1:4 (1 cement :4 coarse sand)					
	1.66x0.115x0.675 m = 0.129 cum say 0.13 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	7197.75	935.71	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.008	7878.50	63.03	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.358x(1.20+0.40)] = 0.286 sqm say 0.29 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	449.55	130.37	A
	TOTAL				2388.40	W
	Add 1 % Water charges on “W-A”				7.02	
	TOTAL				2395.42	X
	Add GST on “X-A” (multiplying factor 0.2127)				150.86	
	TOTAL				2546.28	Y
	Add 15% CPOH on “Y-A”				129.02	
	TOTAL				2675.30	Z
	Add Cess @ 1% on “Z-A”				9.89	
	Cost of each				2685.19	
	Say				2685.20	

19.4.2 150 x 100 mm size P type

19.4.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one gully tarp					
1902	S.W. gully trap P type 150x100 mm	each	1.00	171.00	171.00	
1366	C.I. grating 150x150 mm	each	1.00	55.00	55.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	525.00	525.00	
9977	Carriage of materials	L.S.	4.50	2.27	10.22	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total =0.107 cum Deduct: 0.322÷3x[0.09+0.023+(0.09x0.023)1/2]= 0.017 cum 3.14/4x(0.124)²x0.485 = 0.006 cum Total = 0.023 cum Net quantity 0.107 cum (-) 0.023 cum = 0.084 cum say 0.08 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	6189.65	495.17	A
	Brick work with 75 class designation brick in cement mortar 1:4 (1 cement :4 coarse sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	1.66x0.115x0.675 m = 0.129 cum say 0.13 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	7370.65	958.18	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	1.66x0.115x0.04 m = 0.008 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.008	7878.50	63.03	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement :					
	[1/2x0.337x(1.20+0.60)] = 0.303 sqm. say 0.30 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	449.55	134.87	A
	TOTAL				2412.47	W
	Add 1 % Water charges on “W-A”				7.61	
	TOTAL				2420.08	X
	Add GST on “X-A” (multiplying factor 0.2127)				163.53	
	TOTAL				2583.61	Y
	Add 15% CPOH on “Y-A”				139.85	
	TOTAL				2723.46	Z
	Add Cess @ 1% on “Z-A”				10.72	
	Cost of each				2734.18	
	Say				2734.20	

19.4.2.2 With sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one gully tarp					
1902	S.W. gully trap P type 150x100 mm	each	1.00	171.00	171.00	
1366	C.I. grating 150x150 mm	each	1.00	55.00	55.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	525.00	525.00	
9977	Carriage of materials	L.S.	4.50	2.27	10.22	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	0.68x0.68x0.10 m = 0.046 cum					
	Concrete around trap					
	0.30x0.30x0.675 m = 0.061 cum					
	Total =0.107 cum					
	Deduct:					
	0.322÷3x[0.09+0.023+(0.09x0.023)1/2] = 0.017 cum					
	3.14/4x(0.124)²x0.485 = 0.006 cum					
	Total= 0.023 cum					
	Net quantity 0.107 cum (-) 0.023 cum = 0.084 cum say 0.08 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	6189.65	495.17	A
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	1.66x0.115x0.675 m = 0.129 cum say 0.13 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	7197.75	935.71	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	1.66x0.115x0.04 m = 0.008 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.008	7878.50	63.03	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement :					
	[1/2x0.337x(1.20+0.60)] = 0.303 sqm. say 0.30 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	449.55	134.87	A
	TOTAL				2390.00	W
	Add 1 % Water charges on “W-A”				7.61	
	TOTAL				2397.61	X
	Add GST on “X-A” (multiplying factor 0.2127)				163.53	
	TOTAL				2561.14	Y
	Add 15% CPOH on “Y-A”				139.85	
	TOTAL				2700.99	Z
	Add Cess @ 1% on “Z-A”				10.72	
	Cost of each				2711.71	
	Say				2711.70	

19.4.3 180x150 mm size P type

19.4.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one gully tarp					
1904	S.W. gully trap P type 180x150 mm	each	1.00	253.00	253.00	
1367	C.I. grating 180x180 mm	each	1.00	65.00	65.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	525.00	525.00	
9977	Carriage of materials	L.S.	4.50	2.27	10.22	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	0.68x0.68x0.10 m = 0.046 cum					
	Concrete around trap					
	0.30x0.30x0.675 m = 0.061 cum					
	Total=0.107 cum					
	Deduct:					
	0.155÷3x[0.09+0.032+(0.09x0.032)1/2] = 0.008 cum					
	3.14/4x(0.182)²x0.70 =0.018 cum					
	Total= 0.026 cum					
	Net quantity 0.107 cum (-) 0.026 cum = 0.081 cum say 0.08 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	6189.65	495.17	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Brick work with 7.5 class designation brick in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum. say 0.13 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	7370.65	958.18	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m =0.008 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.008	7878.50	63.03	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.166x(1.20+0.72)] = 0.159 sqm say 0.16 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	449.55	71.93	A
	TOTAL				2441.53	W
	Add 1 % Water charges on “W-A”				8.53	
	TOTAL				2450.06	X
	Add GST on “X-A” (multiplying factor 0.2127)				183.29	
	TOTAL				2633.35	Y
	Add 15% CPOH on “Y-A”				156.76	
	TOTAL				2790.11	Z
	Add Cess @ 1% on “Z-A”				12.02	
	Cost of each				2802.13	
	Say				2802.15	

19.4.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one gully tarp					
1904	S.W. gully trap P type 180x150 mm	each	1.00	253.00	253.00	
1367	C.I. grating 180x180 mm	each	1.00	65.00	65.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	525.00	525.00	
9977	Carriage of materials	L.S.	4.50	2.27	10.22	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.155÷3x[0.09+0.032+(0.09x0.032)1/2] = 0.008 cum 3.14/4x(0.182)²x0.70 =0.018 cum Total= 0.026 cum Net quantity 0.107 cum (-) 0.026 cum = 0.081 cum say 0.08 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	6189.65	495.17	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	7197.75	935.71	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m =0.008 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.008	7878.50	63.03	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.166x(1.20+0.72)] = 0.159 sqm say0.16 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	449.55	71.93	A
	TOTAL				2419.06	W
	Add 1 % Water charges on “W-A”				8.53	
	TOTAL				2427.59	X
	Add GST on “X-A” (multiplying factor 0.2127)				183.29	
	TOTAL				2610.88	Y
	Add 15% CPOH on “Y-A”				156.76	
	TOTAL				2767.64	Z
	Add Cess @ 1% on “Z-A”				12.02	
	Cost of each				2779.66	
	Say				2779.65	

19.5 Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps :

19.5.1 100 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.36	736.00	264.96	
	TOTAL				625.60	W
	Add 1 % Water charges on “W”				6.26	
	TOTAL				631.86	X
	Add GST on “X” (multiplying factor 0.2127)				134.40	
	TOTAL				766.26	Y
	Add 15% CPOH on “Y”				114.94	
	TOTAL				881.20	Z
	Add Cess @ 1% on “Z”				8.81	
	Cost of 10 metre				890.01	
	Cost of 1 metre				89.00	
	Say				89.00	

19.5.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.45	736.00	331.20	
	TOTAL				691.84	W
	Add 1 % Water charges on “W”				6.92	
	TOTAL				698.76	X
	Add GST on “X” (multiplying factor 0.2127)				148.63	
	TOTAL				847.39	Y
	Add 15% CPOH on “Y”				127.11	
	TOTAL				974.50	Z
	Add Cess @ 1% on “Z”				9.75	
	Cost of 10 metre				984.25	
	Cost of 1 metre				98.43	
	Say				98.45	

19.5.3 200 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.51	736.00	375.36	
	TOTAL				736.00	W
	Add 1 % Water charges on “W”				7.36	
	TOTAL				743.36	X
	Add GST on “X” (multiplying factor 0.2127)				158.11	
	TOTAL				901.47	Y
	Add 15% CPOH on “Y”				135.22	
	TOTAL				1036.69	Z
	Add Cess @ 1% on “Z”				10.37	
	Cost of 10 metre				1047.06	
	Cost of 1 metre				104.71	
	Say				104.70	

19.5.4 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.57	736.00	419.52	
	TOTAL				780.16	W
	Add 1 % Water charges on “W”				7.80	
	TOTAL				787.96	X
	Add GST on “X” (multiplying factor 0.2127)				167.60	
	TOTAL				955.56	Y
	Add 15% CPOH on “Y”				143.33	
	TOTAL				1098.89	Z
	Add Cess @ 1% on “Z”				10.99	
	Cost of 10 metre				1109.88	
	Cost of 1 metre				110.99	
	Say				111.00	

19.5.5 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.49	736.00	360.64	
0115	Coolie	day	0.63	736.00	463.68	
	TOTAL				824.32	W
	Add 1 % Water charges on “W”				8.24	
	TOTAL				832.56	X
	Add GST on “X” (multiplying factor 0.2127)				177.09	
	TOTAL				1009.65	Y
	Add 15% CPOH on “Y”				151.45	
	TOTAL				1161.10	Z
	Add Cess @ 1% on “Z”				11.61	
	Cost of 10 metre				1172.71	
	Cost of 1 metre				117.27	
	Say				117.25	

19.5.6 350 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.60	736.00	441.60	
0115	Coolie	day	0.69	736.00	507.84	
	TOTAL				949.44	W
	Add 1 % Water charges on “W”				9.49	
	TOTAL				958.93	X
	Add GST on “X” (multiplying factor 0.2127)				203.96	
	TOTAL				1162.89	Y
	Add 15% CPOH on “Y”				174.43	
	TOTAL				1337.32	Z
	Add Cess @ 1% on “Z”				13.37	
	Cost of 10 metre				1350.69	
	Cost of 1 metre				135.07	
	Say				135.05	

19.5.7 400 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.75	736.00	552.00	
	TOTAL				1037.76	W
	Add 1 % Water charges on “W”				10.38	
	TOTAL				1048.14	X
	Add GST on “X” (multiplying factor 0.2127)				222.94	
	TOTAL				1271.08	Y
	Add 15% CPOH on “Y”				190.66	
	TOTAL				1461.74	Z
	Add Cess @ 1% on “Z”				14.62	
	Cost of 10 metre				1476.36	
	Cost of 1 metre				147.64	
	Say				147.65	

19.5.8 450 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	LABOUR					
0114	Beldar	day	0.66	736.00	485.76	
0115	Coolie	day	0.81	736.00	596.16	
	TOTAL				1081.92	W
	Add 1 % Water charges on "W"				10.82	
	TOTAL				1092.74	X
	Add GST on "X" (multiplying factor 0.2127)				232.43	
	TOTAL				1325.17	Y
	Add 15% CPOH on "Y"				198.78	
	TOTAL				1523.95	Z
	Add Cess @ 1% on "Z"				15.24	
	Cost of 10 metre				1539.19	
	Cost of 1 metre				153.92	
	Say				153.90	

19.6 Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :

19.6.1 100 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1700	R.C.C. pipes NP2 class 100 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	220.00	2200.00	
1714	R.C.C. collars NP2 class 100 mm dia 5 Nos.	each	5.00	38.00	190.00	
2275	Carriage of R.C.C. pipes 100 mm dia Cement of 5 joints = 5x0.00065 = 0.00325 cum = 0.0048 t say 0.005 tonne	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.005	5156.00	25.78	
2209	Carriage of Cement	tonne	0.005	0.00	0.00	
	Fine sand for 5 joint = 0.0013x5 = 0.0065 cum = 0.006 cum					
0983	Fine sand (zone IV)	cum	0.006	980.00	5.88	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.006	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.32	897.00	287.04	
0124	Mason 2nd class	day	0.32	816.00	261.12	
0114	Beldar	day	0.63	736.00	463.68	
0101	Bhisti	day	0.16	816.00	130.56	
	TOTAL				3564.06	W
	Add 1 % Water charges on "W"				35.64	
	TOTAL				3599.70	X
	Add GST on "X" (multiplying factor 0.2127)				765.66	
	TOTAL				4365.36	Y
	Add 15% CPOH on "Y"				654.80	
	TOTAL				5020.16	Z
	Add Cess @ 1% on "Z"				50.20	
	Cost of 10 metre				5070.36	
	Cost of 1 metre				507.04	
	Say				507.05	

19.6.2 150 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1701	R.C.C. pipes NP2 class 150 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	230.00	2300.00	
1715	R.C.C. collars NP2 class 150 mm dia 5 Nos.	each	5.00	40.00	200.00	
2281	Carriage of R.C.C. pipes 150 mm dia Cement of 5 joints = 5x0.0008 = 0.004 cum = 0.006 tonne	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.006	5156.00	30.94	
2209	Carriage of Cement	tonne	0.006	0.00	0.00	
	Fine sand for 5 joint = 0.0016x5 = 0.008 cum					
0983	Fine sand (zone IV)	cum	0.008	980.00	7.84	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.008	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.39	897.00	349.83	
0124	Mason 2nd class	day	0.39	816.00	318.24	
0114	Beldar	day	0.78	736.00	574.08	
0101	Bhisti	day	0.16	816.00	130.56	
	TOTAL				3911.49	W
	Add 1 % Water charges on “W”				39.11	
	TOTAL				3950.60	X
	Add GST on “X” (multiplying factor 0.2127)				840.29	
	TOTAL				4790.89	Y
	Add 15% CPOH on “Y”				718.63	
	TOTAL				5509.52	Z
	Add Cess @ 1% on “Z”				55.10	
	Cost of 10 metre				5564.62	
	Cost of 1 metre				556.46	
	Say				556.45	

19.6.3 250 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1702	R.C.C. pipes NP2 class 250 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	375.00	3750.00	
1716	R.C.C. collars NP2 class 250 mm dia 5 Nos.	each	5.00	60.00	300.00	
2287	Carriage of R.C.C. pipes 250 mm dia Cement of 5 joints = 5x0.0012 = 0.006 cum = 0.009tonne	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.009	5156.00	46.40	
2209	Carriage of Cement	tonne	0.009	0.00	0.00	
	Fine sand for 5 joint = 0.0024x5 = 0.012 cum					
0983	Fine sand (zone IV)	cum	0.012	980.00	11.76	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.012	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.54	897.00	484.38	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0124	Mason 2nd class	day	0.54	816.00	440.64	
0114	Beldar	day	1.50	736.00	1104.00	
0101	Bhisti	day	0.23	816.00	187.68	
	TOTAL				6324.86	W
	Add 1 % Water charges on "W"				63.25	
	TOTAL				6388.11	X
	Add GST on "X" (multiplying factor 0.2127)				1358.75	
	TOTAL				7746.86	Y
	Add 15% CPOH on "Y"				1162.03	
	TOTAL				8908.89	Z
	Add Cess @ 1% on "Z"				89.09	
	Cost of 10 metre				8997.98	
	Cost of 1 metre				899.80	
	Say				899.80	

19.6.4 300 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1703	R.C.C. pipes NP2 class 300 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	465.00	4650.00	
1717	R.C.C. collars NP2 class 300 mm dia 4 Nos.	each	4.00	60.00	240.00	
2290	Carriage of R.C.C. pipes 300 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.00185 = 0.0074 cum = 0.011 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.011	5156.00	56.72	
2209	Carriage of Cement	tonne	0.011	0.00	0.00	
	Fine sand for 4 joint = 0.0037x4 = 0.0148 say 0.015cum					
0983	Fine sand (zone IV)	cum	0.015	980.00	14.70	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.015	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.59	897.00	529.23	
0124	Mason 2nd class	day	0.59	816.00	481.44	
0114	Beldar	day	1.16	736.00	853.76	
0101	Bhisti	day	0.20	816.00	163.20	
	TOTAL				6989.05	W
	Add 1 % Water charges on "W"				69.89	
	TOTAL				7058.94	X
	Add GST on "X" (multiplying factor 0.2127)				1501.44	
	TOTAL				8560.38	Y
	Add 15% CPOH on "Y"				1284.06	
	TOTAL				9844.44	Z
	Add Cess @ 1% on "Z"				98.44	
	Cost of 10 metre				9942.88	
	Cost of 1 metre				994.29	
	Say				994.30	

19.6.5 450 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1704	R.C.C. pipes NP2 class 450 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	810.00	8100.00	
1718	R.C.C. collars NP2 class 450 mm dia 4 Nos.	each	4.00	120.00	480.00	
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0041 = 0.0164 cum = 0.024 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.024	5156.00	123.74	
2209	Carriage of Cement	tonne	0.024	0.00	0.00	
	Fine sand for 4 joint = 0.0082x4 = 0.033 cum					
0983	Fine sand (zone IV)	cum	0.033	980.00	32.34	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.75	897.00	672.75	
0124	Mason 2nd class	day	0.75	816.00	612.00	
0114	Beldar	day	1.50	736.00	1104.00	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				11394.11	W
	Add 1 % Water charges on “W”				113.94	
	TOTAL				11508.05	X
	Add GST on “X” (multiplying factor 0.2127)				2447.76	
	TOTAL				13955.81	Y
	Add 15% CPOH on “Y”				2093.37	
	TOTAL				16049.18	Z
	Add Cess @ 1% on “Z”				160.49	
	Cost of 10 metre				16209.67	
	Cost of 1 metre				1620.97	
	Say				1620.95	

19.6.6 500 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1705	R.C.C. pipes NP2 class 500 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	995.00	9950.00	
1719	R.C.C. collars NP2 class 500 mm dia 4 Nos.	each	4.00	130.00	520.00	
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0045 = 0.018 cum = 0.026 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.026	5156.00	134.06	
2209	Carriage of Cement	tonne	0.026	0.00	0.00	
	Fine sand for 4 joints = 0.0089x4 = 0.0356 cum = 0.036 cum					
0983	Fine sand (zone IV)	cum	0.036	980.00	35.28	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.036	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.81	897.00	726.57	
0124	Mason 2nd class	day	0.81	816.00	660.96	
0114	Beldar	day	1.62	736.00	1192.32	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				13488.47	W
	Add 1 % Water charges on "W"				134.88	
	TOTAL				13623.35	X
	Add GST on "X" (multiplying factor 0.2127)				2897.69	
	TOTAL				16521.04	Y
	Add 15% CPOH on "Y"				2478.16	
	TOTAL				18999.20	Z
	Add Cess @ 1% on "Z"				189.99	
	Cost of 10 metre				19189.19	
	Cost of 1 metre				1918.92	
	Say				1918.90	

19.6.7 600 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1706	R.C.C. pipes NP2 class 600 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1175.00	11750.00	
1720	R.C.C. collars NP2 class 600 mm dia 4 Nos.	each	4.00	155.00	620.00	
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0054 = 0.0216 cum = 0.032 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.032	5156.00	164.99	
2209	Carriage of Cement	tonne	0.032	0.00	0.00	
	Fine sand for 4 joints = 0.0108x4 = 0.043 cum					
0983	Fine sand (zone IV)	cum	0.043	980.00	42.14	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.043	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.92	897.00	825.24	
0124	Mason 2nd class	day	0.92	816.00	750.72	
0114	Beldar	day	1.83	736.00	1346.88	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				15769.25	W
	Add 1 % Water charges on "W"				157.69	
	TOTAL				15926.94	X
	Add GST on "X" (multiplying factor 0.2127)				3387.66	
	TOTAL				19314.60	Y
	Add 15% CPOH on "Y"				2897.19	
	TOTAL				22211.79	Z
	Add Cess @ 1% on "Z"				222.12	
	Cost of 10 metre				22433.91	
	Cost of 1 metre				2243.39	
	Say				2243.40	

19.6.8 700 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1707	R.C.C. pipes NP2 class 700 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1605.00	16050.00	
1721	R.C.C. collars NP2 class 700 mm dia 4 Nos.	each	4.00	175.00	700.00	
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0062 = 0.0248 cum = 0.037 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.037	5156.00	190.77	
2209	Carriage of Cement	tonne	0.037	0.00	0.00	
	Fine sand for 4 joints = 0.0124x4 = 0.0496 cum = 0.05 cum					
0983	Fine sand (zone IV)	cum	0.05	980.00	49.00	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.05	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	1.03	897.00	923.91	
0124	Mason 2nd class	day	1.03	816.00	840.48	
0114	Beldar	day	2.06	736.00	1516.16	
0101	Bhisti	day	0.42	816.00	342.72	
	TOTAL				20613.04	W
	Add 1 % Water charges on “W”				206.13	
	TOTAL				20819.17	X
	Add GST on “X” (multiplying factor 0.2127)				4428.24	
	TOTAL				25247.41	Y
	Add 15% CPOH on “Y”				3787.11	
	TOTAL				29034.52	Z
	Add Cess @ 1% on “Z”				290.35	
	Cost of 10 metre				29324.87	
	Cost of 1 metre				2932.49	
	Say				2932.50	

19.6.9 800 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1709	R.C.C. pipes NP2 class 800 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1950.00	19500.00	
1723	R.C.C. collars NP2 class 800 mm dia 4 Nos.	each	4.00	235.00	940.00	
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0072 = 0.0288 cum = 0.042 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.042	5156.00	216.55	
2209	Carriage of Cement	tonne	0.042	0.00	0.00	
	Fine sand for 4 joints = 0.0143x4 = 0.0572 cum = 0.057 cum					
0983	Fine sand (zone IV)	cum	0.057	980.00	55.86	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.057	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0123	Mason 1st class	day	1.14	897.00	1022.58	
0124	Mason 2nd class	day	1.14	816.00	930.24	
0114	Beldar	day	2.28	736.00	1678.08	
0101	Bhisti	day	0.42	816.00	342.72	
	TOTAL				24686.03	W
	Add 1 % Water charges on “W”				246.86	
	TOTAL				24932.89	X
	Add GST on “X” (multiplying factor 0.2127)				5303.23	
	TOTAL				30236.12	Y
	Add 15% CPOH on “Y”				4535.42	
	TOTAL				34771.54	Z
	Add Cess @ 1% on “Z”				347.72	
	Cost of 10 metre				35119.26	
	Cost of1 metre				3511.93	
	Say				3511.95	

19.6.10 900 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1710	R.C.C. pipes NP2 class 900 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	2728.00	27280.00	
1724	R.C.C. collars NP2 class 900 mm dia 4 Nos.	each	4.00	260.00	1040.00	
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0082 = 0.0328 cum = 0.0488 t Say 0.049					
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5156.00	252.64	
2209	Carriage of Cement	tonne	0.049	0.00	0.00	
	Fine sand for 4 joints = 0.0164x4 = 0.066 cum					
0983	Fine sand (zone IV)	cum	0.066	980.00	64.68	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.066	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	1.25	897.00	1121.25	
0124	Mason 2nd class	day	1.25	816.00	1020.00	
0114	Beldar	day	3.00	736.00	2208.00	
0101	Bhisti	day	0.50	816.00	408.00	
	TOTAL				33394.57	W
	Add 1 % Water charges on “W”				333.95	
	TOTAL				33728.52	X
	Add GST on “X” (multiplying factor 0.2127)				7174.06	
	TOTAL				40902.58	Y
	Add 15% CPOH on “Y”				6135.39	
	TOTAL				47037.97	Z
	Add Cess @ 1% on “Z”				470.38	
	Cost of 10 metre				47508.35	
	Cost of 1 metre				4750.84	
	Say				4750.85	

19.6.11 1000 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1711	R.C.C. pipes NP2 class 1000 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	3158.00	31580.00	
1725	R.C.C. collars NP2 class 1000 mm dia 4 Nos.	each	4.00	310.00	1240.00	
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0092 = 0.0368 cum = 0.055 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.055	5156.00	283.58	
2209	Carriage of Cement	tonne	0.055	0.00	0.00	
	Fine sand for 4 joints = 0.0185x4 = 0.074 cum					
0983	Fine sand (zone IV)	cum	0.074	980.00	72.52	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.074	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	1.36	897.00	1219.92	
0124	Mason 2nd class	day	1.36	816.00	1109.76	
0114	Beldar	day	4.33	736.00	3186.88	
0101	Bhisti	day	0.50	816.00	408.00	
	TOTAL				39100.66	W
	Add 1 % Water charges on “W”				391.01	
	TOTAL				39491.67	X
	Add GST on “X” (multiplying factor 0.2127)				8399.88	
	TOTAL				47891.55	Y
	Add 15% CPOH on “Y”				7183.73	
	TOTAL				55075.28	Z
	Add Cess @ 1% on “Z”				550.75	
	Cost of 10 metre				55626.03	
	Cost of 1 metre				5562.60	
	Say				5562.60	

19.6.12 1100 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1712	R.C.C. pipes NP2 class 1100 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	3478.00	34780.00	
1726	R.C.C. collars NP2 class 1100 mm dia 4 Nos.	each	4.00	325.00	1300.00	
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0103 =0.0412 cum = 0.061 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.061	5156.00	314.52	
2209	Carriage of Cement	tonne	0.061	0.00	0.00	
	Fine sand for 4 joints = 0.0206x4 = 0.0824 cum = 0.082 cum					
0983	Fine sand (zone IV)	cum	0.082	980.00	80.36	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.082	0.00	0.00	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	1.47	897.00	1318.59	
0124	Mason 2nd class	day	1.47	816.00	1199.52	
0114	Beldar	day	6.30	736.00	4636.80	
0101	Bhisti	day	0.60	816.00	489.60	
	TOTAL				44119.39	W
	Add 1 % Water charges on “W”				441.19	
	TOTAL				44560.58	X
	Add GST on “X” (multiplying factor 0.2127)				9478.04	
	TOTAL				54038.62	Y
	Add 15% CPOH on “Y”				8105.79	
	TOTAL				62144.41	Z
	Add Cess @ 1% on “Z”				621.44	
	Cost of 10 metre				62765.85	
	Cost of 1 metre				6276.59	
	Say				6276.60	

19.6.13 1200 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1713	R.C.C. pipes NP2 class 1200 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	3825.00	38250.00	
1727	R.C.C. collars NP2 class 1200 mm dia 4 Nos.	each	4.00	395.00	1580.00	
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	0.00	0.00	
	Cement of 4 joints = 4x0.0114 = 0.0456 cum = 0.068 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.068	5156.00	350.61	
2209	Carriage of Cement	tonne	0.068	0.00	0.00	
	Fine sand for 4 joints = 0.0229x4 = 0.0916 cum = 0.092 cum					
0983	Fine sand (zone IV)	cum	0.092	980.00	90.16	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.092	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	1.59	897.00	1426.23	
0124	Mason 2nd class	day	1.59	816.00	1297.44	
0114	Beldar	day	8.67	736.00	6381.12	
0101	Bhisti	day	0.67	816.00	546.72	
	TOTAL				49922.28	W
	Add 1 % Water charges on “W”				499.22	
	TOTAL				50421.50	X
	Add GST on “X” (multiplying factor 0.2127)				10724.65	
	TOTAL				61146.15	Y
	Add 15% CPOH on “Y”				9171.92	
	TOTAL				70318.07	Z
	Add Cess @ 1% on “Z”				703.18	
	Cost of 10 metre				71021.25	
	Cost of 1 metre				7102.13	
	Say				7102.15	

19.7 Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :

19.7.1 Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :

19.7.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum					
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum Total = 0.340 cum	cum	0.43	6812.00	2929.16	A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum = 0.16 cum	cum	0.34	7370.65	2506.02	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40mx0.05m = 0.17 sqm 2x½x0.80x0.10m = 0.08 sqm Total= 0.25 sqm	cum	0.16	7878.50	1260.56	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum = 0.215 cum Say 0.22 cum	sqm	0.25	449.55	112.39	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work T.M.T. bars steel reinforcement for R.C.C work of slab 0.22 cum @ 48.06 kg/cum = 10.57 kg	cum	0.22	9045.75	1990.07	A
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work Form work = 0.90x0.80 = 0.72 sqm Less cover = 0.61x0.455m = (-) 0.278 sqm = 0.442 sqm Say 0.44 sqm	kg	10.57	107.85	1139.97	A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR Extra labour for making channel :	sqm	0.44	927.25	407.99	A
0123	Mason 1st class	day	0.06	897.00	53.82	
0124	Mason 2nd class	day	0.06	816.00	48.96	
1354	Rectangular cover 455x610 mm with frame (low duty) (inside)	each	1.00	1540.00	1540.00	
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.27	15.35	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				12050.33	W
	Add 1 % Water charges on “W-A”				17.04	
	TOTAL				12067.37	X
	Add GST on “X-A” (multiplying factor 0.2127)				366.10	
	TOTAL				12433.47	Y
	Add 15% CPOH on “Y-A”				313.10	
	TOTAL				12746.57	Z
	Add Cess @ 1% on “Z-A”				24.00	
	Cost of each				12770.57	
	Say				12770.55	

19.7.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum					
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum Total= 0.340 cum	cum	0.43	6812.00	2929.16	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum Total= 0.16 cum	cum	0.34	7197.75	2447.24	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40mx0.05m = 0.17 sqm 2x½x0.80x0.10m = 0.08 sqm Total= 0.25 sqm	cum	0.16	7878.50	1260.56	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum = 0.215 cum Say 0.22 cum	sqm	0.25	449.55	112.39	A
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work T.M.T. bars steel reinforcement for R.C.C work of slab 0.22 cum @ 48.06 kg/cum = 10.57 kg	cum	0.22	9045.75	1990.07	A
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work Form work = 0.90x0.80 = 0.72 sqm = 0.442 sqm Say 0.44 sqm Less cover = 0.61x0.455m = (-) 0.278 sqm	kg	10.57	107.85	1139.97	A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR Extra labour for making channel :	sqm	0.44	927.25	407.99	A
0123	Mason 1st class	day	0.06	897.00	53.82	
0124	Mason 2nd class	day	0.06	816.00	48.96	
1354	Rectangular cover 455x610 mm with frame (low duty) (inside)	each	1.00	1540.00	1540.00	
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.27	15.35	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				11991.55	W
	Add 1 % Water charges on “W-A”				17.04	
	TOTAL				12008.59	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				366.10	
	TOTAL				12374.69	Y
	Add 15% CPOH on "Y-A"				313.10	
	TOTAL				12687.79	Z
	Add Cess @ 1% on "Z-A"				24.00	
	Cost of each				12711.79	
	Say				12711.80	

19.7.2 Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :

19.7.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole					
	MATERIAL					
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)					
	1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum					
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6812.00	3746.60	A
	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand)					
	5.12x0.23x0.80 m = 0.942 cum					
	Less for pipe $2x3.14x(0.15m)^2x0.23m$ =(-) 0.008 cum					
	Total= 0.934 cum Say 0.93 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.93	7370.65	6854.70	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching					
	2x1.20x(0.90/2) x (0.30+0.20)/2 = 2.70 cum					
	Less for pipe $1.20x3.14/4x(0.15m)^2$ = (-) 0.021 cum					
	Total= 0.249 cum say 0.25					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7878.50	1969.63	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	4.20mx0.50m = 2.10 sqm					
	2x½x0.90x0.10m = 0.09 sqm					
	= 2.19 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.19	449.55	984.51	A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	For slab : 1.66x1.36x0.15m = 0.339 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Less for cover 0.7854x(0.50)²x0.15m = (-) 0.029 cum = 0.31 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.31	9045.75	2804.18	A
	T.M.T. bars steel reinforcement for R.C.C work of slab 0.31 cum @ 80.09 kg/cum = 24.83 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	24.83	107.85	2677.92	A
	Form work = 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.50)² = (-) 0.196 sqm = 0.884 sqm Say 0.88 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.88	927.25	815.98	A
	LABOUR Extra labour for making channel :					
0123	Mason 1st class	day	0.08	897.00	71.76	
0124	Mason 2nd class	day	0.08	816.00	65.28	
1356	500 mm dia cover with frame (medium duty)	each	1.00	4400.00	4400.00	
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.27	15.35	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	16.64	2.27	37.77	
	TOTAL				24459.03	W
	Add 1 % Water charges on “W-A”				46.06	
	TOTAL				24505.09	X
	Add GST on “X-A” (multiplying factor 0.2127)				989.39	
	TOTAL				25494.48	Y
	Add 15% CPOH on “Y-A”				846.14	
	TOTAL				26340.62	Z
	Add Cess @ 1% on “Z-A”				64.87	
	Cost of each				26405.49	
	Say				26405.50	

19.7.2.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole MATERIAL Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum					
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6812.00	3746.60	A
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum = 0.934 cum Say 0.93 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.93	7197.75	6693.91	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2) x (0.30+0.20)/2 = 2.70 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7878.50	1969.63	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.50m = 2.10 sqm 2x½x0.90x0.10m = 0.09sqm = 2.19 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.19	449.55	984.51	A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Less for cover 0.7854x(0.50)²x0.15m = (-) 0.029 cum = 0.31 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.31	9045.75	2804.18	A
	T.M.T. bars steel reinforcement for R.C.C work of slab 0.31 cum @ 80.09 kg/cum = 24.83 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	24.83	107.85	2677.92	A
	Form work = 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.50)² = (-) 0.196 sqm = 0.884 sqm Say 0.88 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.88	927.25	815.98	A
	LABOUR					
	Extra labour for making channel :					
0123	Mason 1st class	day	0.08	897.00	71.76	
0124	Mason 2nd class	day	0.08	816.00	65.28	
1356	500 mm dia cover with frame (medium duty)	each	1.00	4400.00	4400.00	
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.27	15.35	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	16.64	2.27	37.77	
	TOTAL				24298.24	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W-A"				46.06	
	TOTAL				24344.30	X
	Add GST on "X-A" (multiplying factor 0.2127)				989.39	
	TOTAL				25333.69	Y
	Add 15% CPOH on "Y-A"				846.14	
	TOTAL				26179.83	Z
	Add Cess @ 1% on "Z-A"				64.87	
	Cost of each				26244.70	
	Say				26244.70	

19.7.3 Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :

19.7.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole					
	MATERIAL					
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum					
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6812.00	3746.60	A
	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.65 m = 0.765 cum 1x0.56x0.23x0.15 m = 0.019 cum 1x0.79x0.23x0.15 = 0.027 cum = 0.811 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum = 0.803 cum Say 0.80 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.80	7370.65	5896.52	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2)x(0.30+0.20)/2 = 0.27 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7878.50	1969.63	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.35m = 1.47 sqm 2x0.56x0.15 m = 0.17 sqm 2x½x0.90x0.10m = 0.09 sqm For fixing cover					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	0.96x0.96 m =0.922 sqm = 2.652 sqm Less cover 3.14/4x(0.56)² = (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.41	449.55	1083.42	A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Add extra concreting 1x(0.56+0.79) x0.15x0.15 m = 0.03 cum Total= 0.369 cum Less for cover 0.7854x(0.56)²x0.15m = (-) 0.037 cum = 0.332 cum Say 0.33 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.33	9045.75	2985.10	A
	T.M.T. bars steel reinforcement for R.C.C work of slab 0.33 cum @ 80.09 kg/cum = 26.43 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	26.43	107.85	2850.48	A
	Form work inside area of man-hole 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.56)² = (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.83	927.25	769.62	A
	LABOUR Extra labour for making channel :					
0123	Mason 1st class	day	0.08	897.00	71.76	
0124	Mason 2nd class	day	0.08	816.00	65.28	
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9300.00	9300.00	
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.27	30.69	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	20.28	2.27	46.04	
	TOTAL				28830.49	W
	Add 1 % Water charges on “W-A”				95.29	
	TOTAL				28925.78	X
	Add GST on “X-A” (multiplying factor 0.2127)				2047.11	
	TOTAL				30972.89	Y
	Add 15% CPOH on “Y-A”				1750.73	
	TOTAL				32723.62	Z
	Add Cess @ 1% on “Z-A”				134.22	
	Cost of each				32857.84	
	Say				32857.85	

19.7.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole MATERIAL Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum					
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand) 5.12x0.23x0.65 m = 0.765 cum 1x0.56x0.23x0.15 m = 0.019 cum 1x0.79x0.23x0.15 = 0.027 cum Total= 0.811 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum = 0.803 cum Say 0.80 cum	cum	0.55	6812.00	3746.60	A
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2)x(0.30+0.20)/2 = 0.27 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25	cum	0.80	7197.75	5758.20	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.35m = 1.47 sqm 2x0.56x0.15 m = 0.17 sqm 2x½x0.90x0.10m = 0.09 sqm For fixing cover 0.96x0.96 m =0.922 sqm Total= 2.652 sqm Less cover 3.14/4x(0.56)² = (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm	cum	0.25	7878.50	1969.63	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Add extra concreting 1x(0.56+0.79)x 0.15x0.15 m = 0.03 cum = 0.369 cum Less for cover 0.7854x(0.56)²x0.15m = (-) 0.037 cum	sqm	2.41	449.55	1083.42	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	= 0.332 cum Say 0.33 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.33	9045.75	2985.10	A
	T.M.T. bars steel reinforcement for R.C.C work of slab					
	0.33 cum @ 80.09 kg/cum = 26.43 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	26.43	107.85	2850.48	A
	Form work inside area of man-hole					
	1.20x0.90 = 1.08 sqm					
	Less cover = 3.14/4x(0.56)² = (-) 0.246 sqm					
	= 0.834 sqm Say 0.83 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.83	927.25	769.62	A
	LABOUR					
	Extra labour for making channel :					
0123	Mason 1st class	day	0.08	897.00	71.76	
0124	Mason 2nd class	day	0.08	816.00	65.28	
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9300.00	9300.00	
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.27	30.69	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	20.28	2.27	46.04	
	TOTAL				28692.17	W
	Add 1 % Water charges on “W-A”				95.29	
	TOTAL				28787.46	X
	Add GST on “X-A” (multiplying factor 0.2127)				2047.11	
	TOTAL				30834.57	Y
	Add 15% CPOH on “Y-A”				1750.73	
	TOTAL				32585.30	Z
	Add Cess @ 1% on “Z-A”				134.22	
	Cost of each				32719.52	
	Say				32719.50	

19.8 Extra for depth for manholes :

19.8.1 Size 90x80 cm

19.8.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
	Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)					
	4.32x0.23x1.0 m = 0.994 cum Say 0.99 cum					
6.1.1	Rate as per item no. 6.1.1 of S.H : brick work	cum	0.99	7370.65	7296.94	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	3.40x1 m = 3.40 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	449.55	1528.47	A
	TOTAL				8825.41	
	Cost for one metre				8825.41	
	Say				8825.40	

19.8.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
	Brick work with modular extruded brunt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:4 (1 cement : 4 coarse sand)					
	4.32x0.23x1.0 m = 0.994 cum Say 0.99 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.99	7197.75	7125.77	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	3.40x1 m = 3.40 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	449.55	1528.47	A
	TOTAL				8654.24	
	Cost for one metre				8654.24	
	Say				8654.25	

19.8.2 Size 120x90 cm

19.8.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
	Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement 4: coarse sand)					
	5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum					
6.1.1	Rate as per item no. 6.1.1 of S.H : brick work	cum	1.18	7370.65	8697.37	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	4.20x1 m = 4.20 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.20	449.55	1888.11	A
	TOTAL				10585.48	
	Cost for one metre				10585.48	
	Say				10585.50	

19.8.2.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre MATERIAL Brick work with modular extruded brunt fly ash clay sewer bricks conforming to IS :4885 in cement mortar 1:4 (1 cement: 4 coarse sand) 5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm	cum	1.18	7197.75	8493.35	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.20	449.55	1888.11	A
	TOTAL				10381.46	
	Cost for one metre				10381.46	
	Say				10381.45	

19.9 Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.9.1 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :

19.9.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 1.67x1.67x0.225 m = 0.63 cum					
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.14x0.074x0.23 = 0.061 3.14x(1.14+0.79)/2x0.711x0.23 = 0.496 Total= 0.557 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum	cum	0.63	7178.75	4522.61	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Net quantity 0.557-0.026 = 0.531 Say 0.53					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum	cum	0.53	7370.65	3906.44	A
6.9	Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(0.91+0.82)²x0.20 = 0.118 cum [(2x8.133)/360]x(4/3)x3.14x(0.45)³ =0.017 cum Total = 0.135 cum Less pipe : 0.91x3.14/4x(0.15)2² = (-) 0.016 cum = 0.119 cum Say 0.12 cum	cum	0.02	15077.95	301.56	A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate : 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m = (-) 0.037 cum Total = 0.086 cum Say 0.09 cum	cum	0.12	7878.50	945.42	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(0.80+0.56)/2x0.49 = 1.05 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(0.80)²/4-0.80x0.15+0.80x½x 3.14x0.15 = 0.57 sqm Total= 1.75 sqm	cum	0.09	7878.50	709.07	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel :	sqm	1.75	449.55	786.71	A
0123	Mason 1st class	day	0.06	897.00	53.82	
0124	Mason 2nd class S.F.R.C cover	day	0.06	816.00	48.96	
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	CARRIAGE	L.S.	6.89	2.27	15.64	
9999	Sundries	L.S.	16.9	2.27	38.36	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				12263.59	W
	Add 1 % Water charges on "W-A"				10.92	
	TOTAL				12274.51	X
	Add GST on "X-A" (multiplying factor 0.2127)				234.54	
	TOTAL				12509.05	Y
	Add 15% CPOH on "Y-A"				200.59	
	TOTAL				12709.64	Z
	Add Cess @ 1% on "Z-A"				15.38	
	Cost of one manhole				12725.02	
	Say				12725.00	

19.9.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate: 40 mm nominal size) 1.67x1.67x0.225 m = 0.63 cum					
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work	cum	0.63	7178.75	4522.61	A
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.14x0.074x0.23 = 0.061 3.14x(1.14+0.79)/2x0.711x0.23 = 0.496 = 0.557 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x$(0.15)^2$x0.230 = 0.008 cum Total= 0.026 cum Net quantity 0.557-0.026 = 0.531 Say 0.53					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.53	7197.75	3814.81	A
	Brick work in arches with modular extruded brunt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum					
6.37	Rate as per item No 6.37 of SH : Brick Work	cum	0.02	13427.30	268.55	A
	Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x$(0.91+0.82)^2$x0.20 = 0.118 cum [(2x8.133)/360]x(4/3)x3.14x$(0.45)^3$ =0.017 cum Total= 0.135 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Less pipe : 0.91x3.14/4x(0.15)² = (-) 0.016 cum Total= 0.119 cum Say 0.12 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m = (-) 0.037 cum Total = 0.086 cum Say 0.09 cum	cum	0.12	7878.50	945.42	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(0.80+0.56)/2x0.49 = 1.05 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(0.80)²/4-0.80x0.15+0.80x½x3.14x 0.15 = 0.57 sqm Total= 1.75 sqm	cum	0.09	7878.50	709.07	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR	sqm	1.75	449.55	786.71	A
	Extra labour for making channel :					
0123	Mason 1st class	day	0.06	897.00	53.82	
0124	Mason 2nd class S.F.R.C cover	day	0.06	816.00	48.96	
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	CARRIAGE	L.S.	6.89	2.27	15.64	
9999	Sundries	L.S.	16.90	2.27	38.36	
	TOTAL				12138.95	W
	Add 1 % Water charges on “W-A”				10.92	
	TOTAL				12149.87	X
	Add GST on “X-A” (multiplying factor 0.2127)				234.54	
	TOTAL				12384.41	Y
	Add 15% CPOH on “Y-A”				200.59	
	TOTAL				12585.00	Z
	Add Cess @ 1% on “Z-A”				15.38	
	Cost of one manhole				12600.38	
	Say				12600.40	

19.10 Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m

19.10.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost of 0.76 m depth					
	Brick work in foundation with 7.5 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand)					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.63	7370.65	4643.51	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size)					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.01	7878.50	78.79	A
	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with neat cement.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.33	449.55	1047.45	A
	Cost for 0.76 metre				5769.75	
	Cost for 1.00 metre				7591.78	
	Say				7591.80	

19.10.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost of 0.76 m extra depth					
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand)					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.63	7197.75	4534.58	A
	Cement concrete 1:2:4 (1 cement :2 coarse sand : 4 graded stone 20mm nominal size)					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.01	7878.50	78.79	A
	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.33	449.55	1047.45	A
	Cost for 0.76 metre				5660.82	
	Cost for 1.00 metre				7448.45	
	Say				7448.45	

19.11 Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.11.1 1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :

19.11.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum					
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total= 1.320 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total = 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum	cum	1.18	7178.75	8470.93	A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum	cum	1.29	7370.65	9508.14	A
6.9	Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum Total= 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Total= 0.2554 cum Say 0.26 cum	cum	0.02	15077.95	301.56	A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : (-) = 0.037 cum Total= 0.086 cum Say 0.09 cum	cum	0.26	7878.50	2048.41	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.136+0.56)/2x1.216 = 3.241 sqm 3.14x0.56x0.075 = 0.13 sqm 3.14x(1.136)²/4-1.136x1/2x3.14x0.15 = 1.112 sqm Total= 4.483 sqm Say 4.48 sqm	cum	0.09	7878.50	709.07	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.48	449.55	2013.98	A
	LABOUR					
	Extra labour for making channel :					
0123	Mason 1st class	day	0.10	897.00	89.70	
0124	Mason 2nd class	day	0.10	816.00	81.60	
	S.F.R.C manhole cover					
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	CARRIAGE	L.S.	6.89	2.27	15.64	
9999	Sundries	L.S.	16.9	2.27	38.36	
	TOTAL				24212.39	W
	Add 1 % Water charges on “W-A”				11.60	
	TOTAL				24223.99	X
	Add GST on “X-A” (multiplying factor 0.2127)				249.26	
	TOTAL				24473.25	Y
	Add 15% CPOH on “Y-A”				213.17	
	TOTAL				24686.42	Z
	Add Cess @ 1% on “Z-A”				16.34	
	Cost of one manhole				24702.76	
	Say				24702.75	

19.11.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole					
	MATERIAL					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 40 mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum					
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work	cum	1.18	7178.75	8470.93	A
	Brick work with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total = 1.320					
	Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum	cum	1.29	7197.75	9285.10	A
6.37	Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum Total= 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Total= 0.2554 cum Say 0.26 cum	cum	0.02	13427.30	268.55	A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum Total= 0.086 cum Say 0.09 cum	cum	0.26	7878.50	2048.41	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.136+0.56)/2x1.216 = 3.241 sqm 3.14x0.56x0.075 = 0.13 sqm 3.14x(1.136)²/4-1.136x1/2x3.14x0.15 = 1.112 sqm Total= 4.483 sqm Say 4.48 sqm	cum	0.09	7878.50	709.07	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel :	sqm	4.48	449.55	2013.98	A
0123	Mason 1st class	day	0.10	897.00	89.70	
0124	Mason 2nd class	day	0.10	816.00	81.60	
	S.F.R.C manhole cover and frame					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	CARRIAGE	L.S.	6.89	2.27	15.64	
9999	Sundries	L.S.	16.9	2.27	38.36	
	TOTAL				23956.34	W
	Add 1 % Water charges on "W-A"				11.60	
	TOTAL				23967.94	X
	Add GST on "X-A" (multiplying factor 0.2127)				249.26	
	TOTAL				24217.20	Y
	Add 15% CPOH on "Y-A"				213.17	
	TOTAL				24430.37	Z
	Add Cess @ 1% on "Z-A"				16.34	
	Cost of one manhole				24446.71	
	Say				24446.70	

19.12 Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :

19.12.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost of 0.61 m extra depth					
	Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.66	7370.65	4864.63	A
	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.56	449.55	1150.85	A
	Cost for 0.61 metre				6015.48	
	Cost for 1.00 metre				9861.44	
	Say				9861.45	

19.12.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost of 0.61 m extra depth					
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand)					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.66	7197.75	4750.52	A
	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement.					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.56	449.55	1150.85	A
	Cost for 0.61 metre				5901.37	
	Cost for 1.00 metre				9674.38	
	Say				9674.40	

19.13 Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.13.1 2.30 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :

19.13.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 2.74x2.74x0.30 m = 2.25 cum					
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.98x0.25x0.46 = 0.716 cum 3.14x(1.98+0.905)/2x0.345x1.93 = 3.019 cum Total = 3.735 cum Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.46x0.10 m = 0.036 cum 2x3.14/4x(0.15)²x0.460 = 0.016 cum Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum	cum	2.25	7178.75	16152.19	A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand) 2x1/2x3.14x0.25 m x0.460x0.10 m = 0.036 cum Say 0.04 cum	cum	3.68	7370.65	27123.99	A
6.9	Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.52)²x0.20 = 0.363 cum [(2x8.133)/360]x(4/3)x3.14x(0.76)³ =0.083 cum Total= 0.446 cum Less pipe :1.52x3.14/4x(0.15)²(-) = 0.027 cum	cum	0.04	15077.95	603.12	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Total= 0.419 cum Say 0.42 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : concrete	cum	0.42	7878.50	3308.97	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	For fixing cover : 3.14/4 x d² x thickness					
	3.14/4x(1.020)²x0.15 m =0.123 cum					
	Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum					
	Total= 0.086 cum Say 0.09 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.09	7878.50	709.07	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	3.14x(1.454+0.56)/2x1.799 = 5.694 sqm					
	3.14x0.56x0.075 = 0.13 sqm					
	Benching					
	3.14x(1.454)²/4-1.454x0.15+1.454x1/2x 3.14x0.15 =1.786 sqm					
	Total= 7.61 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	7.61	449.55	3421.08	A
	LABOUR					
	Extra labour for making channel :					
0123	Mason 1st class	day	0.10	897.00	89.70	
0124	Mason 2nd class	day	0.10	816.00	81.60	
	S.F.R.C cover					
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	CARRIAGE	L.S.	6.89	2.27	15.64	
9999	Sundries	L.S.	16.90	2.27	38.36	
	TOTAL				52478.72	W
	Add 1 % Water charges on “W-A”				11.60	
	TOTAL				52490.32	X
	Add GST on “X-A” (multiplying factor 0.2127)				249.26	
	TOTAL				52739.58	Y
	Add 15% CPOH on “Y-A”				213.17	
	TOTAL				52952.75	Z
	Add Cess @ 1% on “Z-A”				16.34	
	Cost of one manhole				52969.09	
	Say				52969.10	

19.13.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 manhole					
	MATERIAL					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)					
	2.74x2.74x0.30 m = 2.25 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.98x0.25x0.46 = 0.716 cum 3.14x(1.98+0.905)/2x0.345x1.93 = 3.019 cum Total= 3.735 cum Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.46x0.10 m = 0.036 cum 2x3.14/4x(0.15)²x0.460 = 0.016 cum Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum	cum	2.25	7178.75	16152.19	A
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement : 3 fine sand) 2x1/2x3.14x0.25 m x0.460x0.10 m = 0.036 cum Say 0.04 cum	cum	3.68	7197.75	26487.72	A
6.37	Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.52)²x0.20 = 0.363 cum [(2x8.133)/360]x(4/3)x3.14x(0.76)³ =0.083 cum Total= 0.446 cum Less pipe :1.52x3.14/4x(0.15)²(-) = 0.027 cum = 0.419 cum Say 0.42 cum	cum	0.04	13427.30	537.09	A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum Net Quantity= 0.086 cum Say 0.09 cum	cum	0.42	7878.50	3308.97	A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement	cum	0.09	7878.50	709.07	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	3.14x(1.454+0.56)/2x1.799 = 5.694 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(1.454)²/4-1.454x0.15+1.454x1/2x 3.14x0.15 =1.786 sqm Total= 7.61 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	7.61	449.55	3421.08	A
	LABOUR Extra labour for making channel :					
0123	Mason 1st class	day	0.10	897.00	89.70	
0124	Mason 2nd class	day	0.10	816.00	81.60	
	S.F.R.C cover					
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	CARRIAGE	L.S.	6.89	2.27	15.64	
9999	Sundries	L.S.	16.90	2.27	38.36	
	TOTAL				51776.42	W
	Add 1 % Water charges on “W-A”				11.60	
	TOTAL				51788.02	X
	Add GST on “X-A” (multiplying factor 0.2127)				249.26	
	TOTAL				52037.28	Y
	Add 15% CPOH on “Y-A”				213.17	
	TOTAL				52250.45	Z
	Add Cess @ 1% on “Z-A”				16.34	
	Cost of one manhole				52266.79	
	Say				52266.80	

19.14 Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :

19.14.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost of 1.88 m extra depth Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement: 4 coarse sand)					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	5.26	7370.65	38769.62	A
	12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	8.99	449.55	4041.45	A
	Cost for 1.88 metre				42811.07	
	Cost for 1.00 metre				22771.85	
	Say				22771.85	

19.14.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost of 1.88 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement: 4 coarse sand)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement	cum	5.26	7197.75	37860.17	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	8.99	449.55	4041.45	A
	Cost for 1.88 metre				41901.62	
	Cost for 1.00 metre				22288.10	
	Say				22288.10	

19.15 Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :

19.15.1 With 20x20 mm square bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one M.S foot rests MATERIAL M.S. 20 mm square bar 0.75 m @ 3.137 kg/m = 0.024					
1006	Mild steel square bars	quintal	0.024	5500.00	132.00	
9988	Carriage, painting, and other sundries	L.S.	1.82	2.27	4.13	
	LABOUR for fabrication					
0103	Blacksmith 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.10	736.00	73.60	
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum					
4.1.5	Rate as per item no 4.1.5 of SH : Concrete work	cum	0.004	7294.70	29.18	A
	LABOUR for fixing M.S. foot rests					
0123	Mason 1st class	day	0.02	897.00	17.94	
0124	Mason 2nd class	day	0.02	816.00	16.32	
0114	Beldar	day	0.05	736.00	36.80	
	TOTAL				391.57	W
	Add 1 % Water charges on “W-A”				3.62	
	TOTAL				395.19	X
	Add GST on “X-A” (multiplying factor 0.2127)				77.85	
	TOTAL				473.04	Y
	Add 15% CPOH on “Y-A”				66.58	
	TOTAL				539.62	Z
	Add Cess @ 1% on “Z-A”				5.10	
	Cost for 1 no.				544.72	
	Say				544.70	

19.15.2 With 20 mm diameter round bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one M.S foot rests MATERIAL M.S. round brass20 mm dia 0.75 m @ 2.47kg/m = 0.018 q					
1003	Mild steel round bar above 12 mm dia	quintal	0.018	5450.00	98.10	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Carriage,painting, and other sundries Labour for fabrication	L.S.	1.82	2.27	4.13	
0103	Blacksmith 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.10	736.00	73.60	
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum					
4.1.5	Rate as per item no 4.1.5 of SH : Concrete work	cum	0.004	7294.70	29.18	A
	LABOUR					
0123	Mason 1st class	day	0.02	897.00	17.94	
0124	Mason 2nd class	day	0.02	816.00	16.32	
0114	Beldar	day	0.05	736.00	36.80	
	TOTAL				357.67	W
	Add 1 % Water charges on "W-A"				3.28	
	TOTAL				360.95	X
	Add GST on "X-A" (multiplying factor 0.2127)				70.57	
	TOTAL				431.52	Y
	Add 15% CPOH on "Y-A"				60.35	
	TOTAL				491.87	Z
	Add Cess @ 1% on "Z-A"				4.63	
	Cost for 1 no.				496.50	
	Say				496.50	

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7354	Plastic encapsuled M.S. foot rest 30x20x15 cm	each	1.00	121.00	121.00	
9988	Carriage and other sundries	L.S.	1.82	2.27	4.13	
	Cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (0.30x0.20x0.15 = 0.009 cum)					
4.1.5	Rate as per item no 4.1.5 of SH : Concrete work	cum	0.009	7294.70	65.65	A
	LABOUR					
0123	Mason 1st class	day	0.02	897.00	17.94	
0124	Mason 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.05	736.00	36.80	
	TOTAL				408.72	W
	Add 1 % Water charges on "W-A"				3.43	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				412.15	X
	Add GST on "X-A" (multiplying factor 0.2127)				73.70	
	TOTAL				485.85	Y
	Add 15% CPOH on "Y-A"				63.03	
	TOTAL				548.88	Z
	Add Cess @ 1% on "Z-A"				4.83	
	Cost for 1 no.				553.71	
	Say				553.70	

19.17 Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size):

19.17.1 With 20x20 mm square bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one M.S foot rests					
	MATERIAL					
	M.S. 20 mm square bar 0.75 m @ 3.137 kg/m =0.024 q					
1006	Mild steel square bars	quintal	0.024	5500.00	132.00	
9988	Carriage,painting, and other sundries	L.S.	1.82	2.27	4.13	
	Labour for fabrication					
0103	Blacksmith 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.10	736.00	73.60	
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum					
4.1.5	Rate as per item no 4.1.5 of SH : Concrete work	cum	0.004	7294.70	29.18	A
	LABOUR					
	for dismantling old forts rest cutting holes and fixing new M.S. foot rests					
0123	Mason 1st class	day	0.05	897.00	44.85	
0124	Mason 2nd class	day	0.05	816.00	40.80	
0114	Beldar	day	0.1	736.00	73.60	
	TOTAL				479.76	W
	Add 1 % Water charges on "W-A"				4.51	
	TOTAL				484.27	X
	Add GST on "X-A" (multiplying factor 0.2127)				96.80	
	TOTAL				581.07	Y
	Add 15% CPOH on "Y-A"				82.78	
	TOTAL				663.85	Z
	Add Cess @ 1% on "Z-A"				6.35	
	Cost for 1 no.				670.20	
	Say				670.20	

19.17.2 With 20 mm diameter round bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one M.S foot rests					
	MATERIAL					
	M.S. roumd bars 20 mm dia 0.75 m @ 2.47 kg/m =0.018 q					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1003	Mild steel round bar above 12 mm dia	quintal	0.018	5450.00	98.10	
9988	Carriage,painting, and other sundries	L.S.	1.82	2.27	4.13	
	Labour for fabrication					
0103	Blacksmith 2nd class	day	0.10	816.00	81.60	
0114	Beldar	day	0.10	736.00	73.60	
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)					
	0.20x0.20x0.10 m = 0.004 cum					
4.1.5	Rate as per item no 4.1.5 of SH : Concrete work	cum	0.004	7294.70	29.18	A
	LABOUR					
	for dismantling old forts rest cutting holes and fixing new M.S. foot rests					
0123	Mason 1st class	day	0.05	897.00	44.85	
0124	Mason 2nd class	day	0.05	816.00	40.80	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				445.86	W
	Add 1 % Water charges on “W-A”				4.17	
	TOTAL				450.03	X
	Add GST on “X-A” (multiplying factor 0.2127)				89.51	
	TOTAL				539.54	Y
	Add 15% CPOH on “Y-A”				76.55	
	TOTAL				616.09	Z
	Add Cess @ 1% on “Z-A”				5.87	
	Cost for 1 no.				621.96	
	Say				621.95	

19.18 Supplying and fixing C.I. cover without frame for manholes :

19.18.1 455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cover					
	MATERIAL					
1355	Rectangular cover 455x610mm without frame (low duty)	each	1.00	850.00	850.00	
9977	Carriage of C.I. Manhole cover	L.S.	7.15	2.27	16.23	
	LABOUR					
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				954.55	W
	Add 1 % Water charges on “W”				9.55	
	TOTAL				964.10	X
	Add GST on “X-A” (multiplying factor 0.2127)				205.06	
	TOTAL				1169.16	Y
	Add 15% CPOH on “Y”				175.37	
	TOTAL				1344.53	Z
	Add Cess @ 1% on “Z”				13.45	
	Cost for 1 cover				1357.98	
	Say				1358.00	

19.18.2 500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cover					
	MATERIAL					
1357	500 mm dia cover without frame (medium duty)	each	1.00	2300.00	2300.00	
9977	Carriage of C.I. cover	L.S.	13.47	2.27	30.58	
	LABOUR					
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				2418.90	W
	Add 1 % Water charges on "W"				24.19	
	TOTAL				2443.09	X
	Add GST on "X-A" (multiplying factor 0.2127)				519.65	
	TOTAL				2962.74	Y
	Add 15% CPOH on "Y"				444.41	
	TOTAL				3407.15	Z
	Add Cess @ 1% on "Z"				34.07	
	Cost for 1 no.				3441.22	
	Say				3441.20	

19.18.3 560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cover					
	MATERIAL					
3861	560 mm dia cover without frame (Heavy duty)	each	1.00	5200.00	5200.00	
9977	Carriage of C.I. cover	L.S.	16.12	2.27	36.59	
	LABOUR					
0114	Beldar	day	0.12	736.00	88.32	
	TOTAL				5324.91	W
	Add 1 % Water charges on "W"				53.25	
	TOTAL				5378.16	X
	Add GST on "X-A" (multiplying factor 0.2127)				1143.93	
	TOTAL				6522.09	Y
	Add 15% CPOH on "Y"				978.31	
	TOTAL				7500.40	Z
	Add Cess @ 1% on "Z"				75.00	
	Cost for 1 no.				7575.40	
	Say				7575.40	

19.19 Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality

19.19.1 L D- 2.5

19.19.1.1 Rectangular shape 600x450 mm internal dimensions

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7130	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	743.00	743.00	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	1.00x0.85x0.15 = 0.1275 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Less cover with frame 0.85x0.70x0.15 = (-) 0.0893 cum = 0.0382 cum Say 0.04 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	7878.50	315.14	A
9977	Carriage of R.C.C cover with frame	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				1104.18	W
	Add 1 % Water charges on “W-A”				7.89	
	TOTAL				1112.07	X
	Add GST on “X-A” (multiplying factor 0.2127)				169.51	
	TOTAL				1281.58	Y
	Add 15% CPOH on “Y-A”				144.97	
	TOTAL				1426.55	Z
	Add Cess @ 1% on “Z-A”				11.11	
	Cost for 1 no.				1437.66	
	Say				1437.65	

19.19.1.2 Square shape 450 mm internal dimensions

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no. MATERIAL					
7131	Square shape 450x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	600.00	600.00	
9977	Carriage of manhole cover	L.S.	6.76	2.27	15.35	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 0.725x0.725x0.15 = 0.0788 cum Less cover with frame 0.575x0.575x0.15 = (-) 0.0496 cum = 0.0292 cum Say 0.03 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7878.50	236.36	A
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				882.40	W
	Add 1 % Water charges on “W-A”				6.46	
	TOTAL				888.86	X
	Add GST on “X-A” (multiplying factor 0.2127)				138.79	
	TOTAL				1027.65	Y
	Add 15% CPOH on “Y-A”				118.69	
	TOTAL				1146.34	Z
	Add Cess @ 1% on “Z-A”				9.10	
	Cost for 1 no.				1155.44	
	Say				1155.45	

19.19.1.3 Circular shape 450 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7132	Circular shape 450 mm dia precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	610.00	610.00	
9977	Carriage of manhole cover	L.S.	6.76	2.27	15.35	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	3.14/4x(0.775)²x0.15 = 0.0708 cum					
	Less cover with frame					
	3.14/4x(0.625)²x0.15 = (-) 0.0460 cum					
	= 0.0248 cum Say 0.03 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7878.50	236.36	A
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				892.40	W
	Add 1 % Water charges on “W-A”				6.56	
	TOTAL				898.96	X
	Add GST on “X-A” (multiplying factor 0.2127)				140.94	
	TOTAL				1039.90	Y
	Add 15% CPOH on “Y-A”				120.53	
	TOTAL				1160.43	Z
	Add Cess @ 1% on “Z-A”				9.24	
	Cost for 1 no.				1169.67	
	Say				1169.65	

19.19.2 M D - 10

19.19.2.1 Square shape 450 mm internal dimension

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7133	Rectangular shape 500x500 mm precast R.C.C. manhole cover with frame - M.D. - 10	each	1.00	700.00	700.00	
9977	Carriage of manhole cover	L.S.	6.76	2.27	15.35	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	0.95x0.95x0.15 = 0.1354 cum					
	Less cover with frame					
	0.80x0.80x0.15 = (-) 0.096 cum					
	= 0.0394 cum Say 0.04 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	7878.50	315.14	A
9999	Sundries	L.S.	16.64	2.27	37.77	
	TOTAL				1068.26	W
	Add 1 % Water charges on “W-A”				7.53	
	TOTAL				1075.79	X
	Add GST on “X-A” (multiplying factor 0.2127)				161.79	
	TOTAL				1237.58	Y
	Add 15% CPOH on “Y-A”				138.37	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1375.95	Z
	Add Cess @ 1% on "Z-A"				10.61	
	Cost for 1 no.				1386.56	
	Say				1386.55	

19.19.2.2 Circular shape 500 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7134	Circular shape 500 mm dia precast R.C.C. manhole cover with frame - M.D. - 10	each	1.00	605.00	605.00	
9977	Carriage of manhole cover	L.S.	6.76	2.27	15.35	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	3.14/4x(0.95)²x0.15 = 0.1064 cum					
	Less cover with frame					
	3.14/4x(0.8)²x0.15 = (-) 0.0754 cum					
	= 0.031 cum Say 0.03 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7878.50	236.36	A
9999	Sundries	L.S.	16.64	2.27	37.77	
	TOTAL				894.48	W
	Add 1 % Water charges on "W-A"				6.58	
	TOTAL				901.06	X
	Add GST on "X-A" (multiplying factor 0.2127)				141.38	
	TOTAL				1042.44	Y
	Add 15% CPOH on "Y-A"				120.91	
	TOTAL				1163.35	Z
	Add Cess @ 1% on "Z-A"				9.27	
	Cost for 1 no.				1172.62	
	Say				1172.60	

19.19.3 H D - 20

19.19.3.1 Circular shape 560 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	935.00	935.00	
9977	Carriage of manhole cover	L.S.	13.52	2.27	30.69	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	3.14/4x(1.05)²x0.15 = 0.1299 cum					
	Less cover with frame					
	3.14/4x(0.9)²x0.15 = (-) 0.0955 cum					
	= 0.0344 cum Say 0.03 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7878.50	236.36	A
9999	Sundries	L.S.	20.28	2.27	46.04	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1248.09	W
	Add 1 % Water charges on "W-A"				10.12	
	TOTAL				1258.21	X
	Add GST on "X-A" (multiplying factor 0.2127)				217.35	
	TOTAL				1475.56	Y
	Add 15% CPOH on "Y-A"				185.88	
	TOTAL				1661.44	Z
	Add Cess @ 1% on "Z-A"				14.25	
	Cost for 1 no.				1675.69	
	Say				1675.70	

19.19.4 EHD - 35

19.19.4.1 Circular shape 560 mm internal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7136	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - E.H.D. - 35	each	1.00	1250.00	1250.00	
9977	Carriage of manhole cover	L.S.	13.52	2.27	30.69	
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	$3.14/4x(1.05)^2x0.15$ = 0.1299 cum					
	Less cover with frame					
	$3.14/4x(0.9)^2x0.15$ = (-) 0.0955 cum					
	= 0.0344 cum Say 0.03 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7878.50	236.36	A
9999	Sundries	L.S.	20.28	2.27	46.04	
	TOTAL				1563.09	W
	Add 1 % Water charges on "W-A"				13.27	
	TOTAL				1576.36	X
	Add GST on "X-A" (multiplying factor 0.2127)				285.02	
	TOTAL				1861.38	Y
	Add 15% CPOH on "Y-A"				243.75	
	TOTAL				2105.13	Z
	Add Cess @ 1% on "Z-A"				18.69	
	Cost for 1 no.				2123.82	
	Say				2123.80	

19.20 Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cover					
	MATERIAL					
1353	C.I.cover without frame 300x300mm inside i.e.cover of 4.50 kg	each	1.00	525.00	525.00	
9988	Carriage for cover	L.S.	2.70	2.27	6.13	
	LABOUR					
0114	Beldar	day	0.03	736.00	22.08	
	TOTAL				553.21	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				5.53	
	TOTAL				558.74	X
	Add GST on "X-A" (multiplying factor 0.2127)				118.84	
	TOTAL				677.58	Y
	Add 15% CPOH on "Y"				101.64	
	TOTAL				779.22	Z
	Add Cess @ 1% on "Z"				7.79	
	Cost for 1 cover				787.01	
	Say				787.00	

19.21 Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :

19.21.1 For pipes 100 to 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one connection					
	MATERIAL					
	cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	= 0.30x0.30x0.23 m = 0.0207 cum					
	Less pipe = 1/2x3.14x0.23x0.23x0.23 = 0.0096 cum					
	= 0.0111 cum Say 0.01 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete	cum	0.01	7878.50	78.79	A
	12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement					
	2x0.35x0.35 =0.25sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.25	449.55	112.39	A
	LABOUR					
	(For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)					
0123	Mason 1st class	day	0.12	897.00	107.64	
0124	Mason 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.25	736.00	184.00	
9999	Add for delay sundries etc.	L.S.	20.15	2.27	45.74	
	TOTAL				626.48	W
	Add 1 % Water charges on "W-A"				4.35	
	TOTAL				630.83	X
	Add GST on "X-A" (multiplying factor 0.2127)				93.51	
	TOTAL				724.34	Y
	Add 15% CPOH on "Y-A"				79.97	
	TOTAL				804.31	Z
	Add Cess @ 1% on "Z-A"				6.13	
	Cost for 1 connection				810.44	
	Say				810.45	

19.21.2 For pipes 250 to 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one connection MATERIAL Cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) = 0.35x0.35x0.30 m = 0.037 cum Less pipe = 1/2x3.14x0.30x0.30x0.30 = 0.021 cum = 0.016 cum Say 0.02 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement 2x0.40x0.40 =0.32 sqm	cum	0.02	7878.50	157.57	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR (For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)	sqm	0.32	449.55	143.86	A
0123	Mason 1st class	day	0.12	897.00	107.64	
0124	Mason 2nd class	day	0.12	816.00	97.92	
0114	Beldar	day	0.25	736.00	184.00	
9999	Add for delay sundries etc.	L.S.	20.67	2.27	46.92	
	TOTAL				737.91	W
	Add 1 % Water charges on “W-A”				4.36	
	TOTAL				742.27	X
	Add GST on “X-A” (multiplying factor 0.2127)				93.77	
	TOTAL				836.04	Y
	Add 15% CPOH on “Y-A”				80.19	
	TOTAL				916.23	Z
	Add Cess @ 1% on “Z-A”				6.15	
	Cost for 1 connection				922.38	
	Say				922.40	

19.21.3 For pipes 350 to 450 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one connection MATERIAL Cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) = 0.50x0.50x0.30 m = 0.075 cum Less pipe = 1/2x3.14x0.45x0.45x0.30 = 0.048 cum = 0.027 cum Say 0.03 cum					
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement	cum	0.03	7878.50	236.36	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	2x0.55x0.55 =0.605 sqm Say 0.60 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.60	449.55	269.73	A
	LABOUR					
	(For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)					
0123	Mason 1st class	day	0.16	897.00	143.52	
0124	Mason 2nd class	day	0.16	816.00	130.56	
0114	Beldar	day	0.33	736.00	242.88	
9999	Add for delay sundries etc.	L.S.	26.91	2.27	61.09	
	TOTAL				1084.14	W
	Add 1 % Water charges on "W-A"				5.78	
	TOTAL				1089.92	X
	Add GST on "X-A" (multiplying factor 0.2127)				124.18	
	TOTAL				1214.10	Y
	Add 15% CPOH on "Y-A"				106.20	
	TOTAL				1320.30	Z
	Add Cess @ 1% on "Z-A"				8.14	
	Cost for 1 connection				1328.44	
	Say				1328.45	

19.22 Providing sand cast iron drop connection externally for 60 cm drop from branch sewer line to main sewer manhole including inspection and cleaning eye with chain and lid, sand cast iron drop pipe and bend encased all-round with cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with all centering and shuttering required, cutting holes in walls and making good with brick work in cement mortar 1:4 (1 cement : 4 coarse sand) plastered with cement mortar 1:3 (1 cement : 3 coarse sand) on inside of the manhole wall, lead caulked joints between sand cast iron pipes and fittings, stiff cement mortar 1:1 (1 cement : 1 fine sand) joints between sand cast iron tee and S.W. pipe, making required channels complete as per standard design and specifications :

19.22.1 100 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one drop connection					
	MATERIAL					
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia = 37+30+33 =101 cm =1.00 m	each	0.556	1200.00	667.20	
	Length of pipe = 1.00 m. Hence, Qty = 1.00 /1.8 =0.556 Nos					
9977	Carriage of pipe	L.S.	1.43	2.27	3.25	
	Cutting charges					
18.83.2	Rate as per item no 18.83.2 of SH: Water supply	each cut	3.00	194.70	584.10	A
1336	Clearing eye with chain and lid 100 mm dia	each	1.00	50.00	50.00	
1621	S.C.I. plain bend 100 mm dia	each	1.00	300.00	300.00	
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	410.00	410.00	
	Brick work in cement mortar 1:4 (1 cement : 4 coarse sand)					
	0.20x0.20x0.23 = 0.009 cum					
	Less pipe 1/2x3.14x0.10x0.10x0.23 = 0.002 cum					
	Net Qty= 0.009 - 0.002 = 0.007 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.40x0.45x1.05 m = 0.189 cum 0.40x0.25x0.40 = 0.040 cum Total= 0.229 cum Less pipe portion 1/2x3.14x0.10x0.10x1.50 = 0.012 cum Toothing portion 2x0.40x0.05x0.10 m = 0.004 cum = 0.016 cum Net Qty= 0.229-0.016 = 0.213 cum Say 0.21 cum	cum	0.007	7370.65	51.59	A
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 1x0.25x0.25 m = 0.0625 Say 0.06 sqm	cum	0.21	6189.65	1299.83	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Providing lead caulked joints to 100 mm diameter pipe and special	sqm	0.06	449.55	26.97	A
12.39.1	Rate as per item no. 12.39.1 of SH : Roofing	each	4.00	580.50	2322.00	A
9999	Providing joint to S.W. pipe with cement mortar 1:1 (1 cement : 1 fine sand) Form work 1.30x1.05 m = 1.36 sqm	L.S.	26.91	2.27	61.09	
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.36	842.50	1145.80	A
9988	Sundries including carriage of bends etc. LABOUR For cutting holes 5 cm deep in alternate course of brick work benching and channel	L.S.	26.91	2.27	61.09	
0123	Mason 1st class	day	0.70	897.00	627.90	
0124	Mason 2nd class	day	0.70	816.00	571.20	
0114	Beldar	day	2.70	736.00	1987.20	
	TOTAL				10169.22	W
	Add 1 % Water charges on “W-A”				47.39	
	TOTAL				10216.61	X
	Add GST on “X-A” (multiplying factor 0.2127)				1018.05	
	TOTAL				11234.66	Y
	Add 15% CPOH on “Y-A”				870.66	
	TOTAL				12105.32	Z
	Add Cess @ 1% on “Z-A”				66.75	
	Cost of one drop connection				12172.07	
	Say				12172.05	

19.22.2 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one drop connection MATERIAL					
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia = 34.5+30+37 =101.5cm say 1.00 m Length of pipe = 1m. Hence, Qty = 1.00 / 1.8 =0.556 Nos	each	0.556	1800.00	1000.80	
9977	Carriage of pipe Cutting charges	L.S.	1.82	2.27	4.13	
18.83.4	Rate as per item no 18.83.4 of SH Water Supply	each cut	3.00	365.70	1097.10	A
1337	Clearing eye with chain and lid 150 mm dia	each	1.00	60.00	60.00	
1622	S.C.I. plain bend 150 mm dia	each	1.00	500.00	500.00	
7087	S.C.I. Tee 150 mm	each	1.00	621.00	621.00	
	Brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 0.20x0.20x0.23 = 0.009 cum Less pipe 1/2x3.14x0.15x0.15x0.23 = 0.004 cum Net Qty= 0.005 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.005	7370.65	36.85	A
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.45x0.50x1.15 m = 0.259 cum 0.45x0.25x0.45 = 0.0510 cum = 0.310 cum Less pipe portion 1/4x3.14x0.15x0.15x1.50 = 0.027 cum Toothing portion 3x0.45x0.05x0.10 m = 0.004 cum = 0.027 + 0.004 = 0.031 cum Net Qty 0.310-0.031 = 0.279 cum. Say 0.28 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete	cum	0.28	6189.65	1733.10	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 1x0.25x0.25 m = 0.0625 Say 0.06 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.06	449.55	26.97	A
	Providing lead caulked joints to 150 mm diameter pipe and special					
12.39.2	Rate as per item no. 12.39.2 of SH : Roofing	each	4.00	798.00	3192.00	A
9999	Providing joint to S.W. pipe with cement mortar 1:1 (1 cement : 1 fine sand) Form work 1.450x1.15 m = 1.67 sqm	L.S.	39.91	2.27	90.60	
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.67	842.50	1406.98	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9988	Sundries including carriage of bends etc.	L.S.	34.06	2.27	77.32	
	LABOUR					
	For cutting holes 45 holes 5 cm deep toothing in alternate course of brick work benching and making channel					
0123	Mason 1st class	day	0.85	897.00	762.45	
0124	Mason 2nd class	day	0.85	816.00	693.60	
0114	Beldar	day	3.50	736.00	2576.00	
	TOTAL				13878.90	W
	Add 1 % Water charges on "W-A"				63.86	
	TOTAL				13942.76	X
	Add GST on "X-A" (multiplying factor 0.2127)				1371.86	
	TOTAL				15314.62	Y
	Add 15% CPOH on "Y-A"				1173.24	
	TOTAL				16487.86	Z
	Add Cess @ 1% on "Z-A"				89.95	
	Cost of one drop connection				16577.81	
	Say				16577.80	

19.23 Extra for depths beyond 60 cm of sand cast iron drop connection complete:

19.23.1 For 100 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	0.556	1200.00	667.20	
	Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.556 Nos.					
9977	Carriage of material and fixing charges	L.S.	13.39	2.27	30.40	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	0.40x0.45x1.00 mm = 0.18 cum					
	Less pipe portion					
	1/2x3.14x0.10x0.10x1.00 = 0.008 cum					
	Toothing portion					
	5x0.40x0.05x0.10 m = 0.010 cum					
	Total= 0.018 cum					
	Net Qty= 0.18-0.018 = 0.162 cum Say 0.16 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.16	6189.65	990.34	A
	Form work					
	1.30x1.00 m = 1.30 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.30	842.50	1095.25	A
9999	Sundries	L.S.	7.15	2.27	16.23	
	LABOUR					
	For cutting holes 5 cm deep in alternate course of brick work					
0123	Mason 1st class	day	0.04	897.00	35.88	
0124	Mason 2nd class	day	0.04	816.00	32.64	
0114	Beldar	day	0.04	736.00	29.44	
	TOTAL				2897.38	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W-A"				8.12	
	TOTAL				2905.50	X
	Add GST on "X-A" (multiplying factor 0.2127)				174.39	
	TOTAL				3079.89	Y
	Add 15% CPOH on "Y-A"				149.15	
	TOTAL				3229.04	Z
	Add Cess @ 1% on "Z-A"				11.43	
	Cost of one metre				3240.47	
	Say				3240.45	

19.23.2 For 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.556 Nos.	each	0.556	1800.00	1000.80	
9977	Carriage of material and fixing charges	L.S.	13.39	2.27	30.40	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.45x0.50x1.00 mm = 0.225 cum Less pipe portion 1/2x3.14x0.15x0.15x1.00 = 0.018 cum Toothing portion 5x0.45x0.05x0.10 m = 0.011 cum Total = 0.029 cum Net 0.225-0.029 = 0.196 cum Say 0.20 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Form work 1.45x1.00 m = 1.45 sqm	cum	0.20	6189.65	1237.93	A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.45	842.50	1221.63	A
9999	Sundries	L.S.	8.09	2.27	18.36	
	LABOUR					
	For cutting 5 cm deep in alternate course of brick work					
0123	Mason 1st class	day	0.05	897.00	44.85	
0124	Mason 2nd class	day	0.05	816.00	40.80	
0114	Beldar	day	0.05	736.00	36.80	
	TOTAL				3631.57	W
	Add 1 % Water charges on "W-A"				11.72	
	TOTAL				3643.29	X
	Add GST on "X-A" (multiplying factor 0.2127)				251.78	
	TOTAL				3895.07	Y
	Add 15% CPOH on "Y-A"				215.33	
	TOTAL				4110.40	Z
	Add Cess @ 1% on "Z-A"				16.51	
	Cost of one metre				4126.91	
	Say				4126.90	

19.24 Dismantling of manhole including R.C.C. top slab, C.I. cover with frame, including stacking of useful materials near the site and disposal of unserviceable materials within 50 m lead as per direction of Engineer-in-charge:

19.24.1 Rectangular manhole 90x80 cm and 45 cm deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of a manhole 90x80 cm and 45 cm deep					
	Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size)					
	1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum					
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing	cum	0.43	1503.60	646.55	A
	Dismantling of secon class brick work in cement mortar 1:4 (1 cement : 4 coarse sand)					
	4.32x0.23x0.35 m = 0.348 cum					
	Less for pipe 2x3.14x(0.15m)² x0.23m = (-) 0.008 cum					
	Net Qty 0.348 - 0.008 = 0.340 cum					
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	0.34	2060.20	700.47	A
	Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	For benching 2x0.90x(0.80/2) x(0.30+0.20)/2 = 0.18 cum					
	Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum					
	Net qty= 0.16 cum					
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing	cum	0.16	2434.25	389.48	A
	Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	For slab : 1.36x1.26x0.15m = 0.257 cum					
	Less for cover 0.61x0.455x0.15m = (-) 0.042 cum					
	Net qty= 0.215 cum Say 0.22 cum					
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.22	3551.25	781.28	A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.27	16.23	
	TOTAL				2534.01	W
	Add 1 % Water charges on “W-A”				0.16	
	TOTAL				2534.17	X
	Add GST on “X-A” (multiplying factor 0.2127)				3.49	
	TOTAL				2537.66	Y
	Add 15% CPOH on “Y-A”				2.98	
	TOTAL				2540.64	Z
	Add Cess @ 1% on “Z-A”				0.23	
	Cost of one no				2540.87	
	Say				2540.85	

19.24.2 Rectangular manhole 120x90 cm and 90 cm deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of a manhole 120x90 and 90 cm deep					
	Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size)					
	1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum					
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing	cum	0.55	1503.60	826.98	A
	Dismantling of secon class brick work in cement mortar 1:4 (1 cement : 4 coarse sand)					
	5.12x0.23x0.80 m = 0.942 cum					
	Less for pipe 2x3.14x(0.15m)²x0.23 m = (-) 0.008 cum					
	Net qty = 0.934 cum Say 0.93 cum					
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	0.93	2060.20	1915.99	A
	Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	2x1.20x0.90x(0.80/2) x (0.30+0.20)/2 = 2.70 cum					
	Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum					
	= 0.249 cum say 0.25					
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing	cum	0.25	2434.25	608.56	A
	Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	For slab : 1.66x1.36x0.15m = 0.339 cum					
	Less for cover 3.14/4x(0.50)²x0.15m = (-) 0.029 cum					
	Net qty = 0.31 cum					
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.31	3551.25	1100.89	A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.27	16.23	
	TOTAL				4468.65	W
	Add 1 % Water charges on “W-A”				0.16	
	TOTAL				4468.81	X
	Add GST on “X-A” (multiplying factor 0.2127)				3.49	
	TOTAL				4472.30	Y
	Add 15% CPOH on “Y-A”				2.98	
	TOTAL				4475.28	Z
	Add Cess @ 1% on “Z-A”				0.23	
	Cost of one no				4475.51	
	Say				4475.50	

19.24.3 Rectangular arch type manhole 140x90 cm and 2.45 m deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of a manhole 140x90 cm and 2.45 m deep					
	Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size)					
	2.16m x 1.66m x 0.20m = 0.72 cum					
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing	cum	0.72	1503.60	1082.59	A
	Dismantling of second class brick work in cement mortar 1:4 (1 cement : 4 coarse sand)					
	Brick work in item 5.52mx0.23mx1.20m = 1.524 cum					
	3.92mx0.23mx1.15m = 1.037 cum = 2.561 cum					
	Deduct arch ring and portion of pipe					
	2x½x3.14x0.25mx0.23x0.1m = 0.018 cum					
	2x3.14/4(0.15)²x0.23m = 0.008 cum = (-) 0.026 cum					
	Net qty = 2.561 - 0.026 = 2.535 cum					
	Say 2.54 cum					
	Brick work in arch					
	½x3.14x1.13x0.80x0.23m = 0.327 cum					
	2x½x3.14x0.25mx0.23x0.1m = 0.018 cum					
	= 0.345 cum Say 0.35 cum					
	Net qty = 2.54+0.35 = 2.89 cum					
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	2.89	2060.20	5953.98	A
	Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	2x1.4x0.90/2x(0.20+0.30)/2 = 0.315 cum					
	Less pipe 1.4x3.14/4x(0.15)² = (-) 0.025 cum					
	Net qty = 0.290 cum					
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing	cum	0.29	2434.25	705.93	A
	Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)					
	1.36mx1.06mx0.15 = 0.216 cum					
	Less cover 3.14/4x(0.50)²x0.15m = (-) 0.029 cum					
	= 0.187 cum Say 0.19 cum					
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.19	3551.25	674.74	A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.27	16.23	
9999	Removal of M.S foot rest	L.S.	8.06	2.27	18.30	
	TOTAL				8451.77	W
	Add 1 % Water charges on “W-A”				0.35	
	TOTAL				8452.12	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X-A" (multiplying factor 0.2127)				7.42	
	TOTAL				8459.54	Y
	Add 15% CPOH on "Y-A"				6.34	
	TOTAL				8465.88	Z
	Add Cess @ 1% on "Z-A"				0.49	
	Cost of one no				8466.37	
	Say				8466.35	

19.24.4 Circular manhole 122 cm diameter and 1.68 m deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of a manhole 1.22 m internal diameter 1.68 m deep					
	Dismantling of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 aggregate stone 40 mm nominal size)					
	1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum					
15.2.1	Rate as per item no 15.2.1 of SH : Dismantling	cum	1.18	2434.25	2872.42	A
	Dismantling of second class brick work in cement mortar 1:4 (1 cement : 4 coarse sand)					
	Curved on plan					
	3.14x1.45x0.24x0.23 = 0.251					
	3.14x(1.45+0.79)/2x1.32x0.23 = 1.069					
	= 1.320					
	Duduct arch ring and portion of pipe					
	2x½x3.14x0.25mx0.23x0.10 m = 0.018 cum					
	2x3.14/4x(0.15)²x0.23 = 0.008 cum					
	= 0.026 cum					
	Net quantity 1.320-0.026 = 1.294 Say 1.29 cum					
	Brick work in arches					
	2x1/2x3.14x0.25 m x0.230x0.10 m					
	= 0.018 cum Say 0.02 cum					
	Total = 1.294+0.02 = 1.1.314 cum. Say 1.131 cum					
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	1.31	2060.20	2698.86	A
	Dismantaling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 gradeed stone aggregate 20 mm nominal size)					
	For benching :					
	3.14/4x(1.22)²x0.20 = 0.234 cum					
	[(2x8.133)/360]x(4/3)x3.14x(0.61)³					
	Total =0.043 cum					
	0.024 + 0.043 = 0.277 cum					
	Less pipe :1.22x3.14/4x(0.15)² = (-) 0.0216 cum					
	Net Qty. = 0.277 - 0.0216 = 0.26 cum					
	In cover fixing 0.7854x1.020x1.020x0.15 m =0.123 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum = 0.086 cum Say 0.09 cum Total = 0.26 + 0.09 = 0.35 cum					
15.2.1	Rate as per item no 15.2.1 of SH : Demolishing and dismantling	cum	0.35	2434.25	851.99	A
9999	Removal of S.F.R.C cover with frame size 560 mm diameter (medium duty)	L.S.	7.15	2.27	16.23	
9999	Removal of M.S. foot rests	L.S.	8.06	2.27	18.30	
	TOTAL				6457.80	W
	Add 1 % Water charges on "W-A"				0.35	
	TOTAL				6458.15	X
	Add GST on "X-A" (multiplying factor 0.2127)				7.42	
	TOTAL				6465.57	Y
	Add 15% CPOH on "Y-A"				6.35	
	TOTAL				6471.92	Z
	Add Cess @ 1% on "Z-A"				0.49	
	Cost of one no				6472.41	
	Say				6472.40	

19.25 Extra for depth of manholes dismantled :

19.25.1 Rectangular manhole 90x80 cm and beyond 45 cm depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre Dismantling of second class brick work in cement mortar 1:5 (1 Cement : 5 fine sand) 4.32x0.23x1.0m = 0.994 cum Say 0.99 cum					
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	0.99	2060.20	2039.60	A
9999	Removing of M.S. foot rests	L.S.	1.82	2.27	4.13	
	TOTAL				2043.73	W
	Add 1 % Water charges on "W-A"				0.04	
	TOTAL				2043.77	X
	Add GST on "X-A" (multiplying factor 0.2127)				0.89	
	TOTAL				2044.66	Y
	Add 15% CPOH on "Y-A"				0.76	
	TOTAL				2045.42	Z
	Add Cess @ 1% on "Z-A"				0.06	
	Cost for one metre				2045.48	
	Say				2045.50	

19.25.2 Rectangular manhole 120x90 cm and beyond 90 cm depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre Dismantling of second class brick work in cement mortar 1:5 (1 Cement : 5 fine sand) 5.12x0.23x1.0m = 1.178 cum Say 1.18 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
15.7.4	Rate as per item no. 15.7.4 of SH :dis-mantling and dimolishing	cum	1.18	2060.20	2431.04	A
9999	Removing of M.S. foot rests	L.S.	1.82	2.27	4.13	
	TOTAL				2435.17	W
	Add 1 % Water charges on "W-A"				0.04	
	TOTAL				2435.21	X
	Add GST on "X-A" (multiplying factor 0.2127)				0.89	
	TOTAL				2436.10	Y
	Add 15% CPOH on "Y-A"				0.76	
	TOTAL				2436.86	Z
	Add Cess @ 1% on "Z-A"				0.06	
	Cost for one metre				2436.92	
	Say				2436.90	

19.25.3 Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.80 metre Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) for 2.45 depth Qty for 2.45m depth 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx1.15m = 1.037 cum Total = 2.561 cum Deduct arch ring and portion of pipe 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum 2x3.14/4(0.15)²x0.23m = 0.008 cum Total deduction= = (-) 0.026 cum Net 2.561 - 0.026 = 2.535 cum Say 2.54 cum Qty in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum Total = 0.345 cum Say 0.35 cum Totol for 4.45 m depth 2.54 + 0.35 = 2.89 cum Qty for 4.25m depth 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx2.95m = 2.660 cum Total = 4.184 cum Deduct arch ring and portion of pipe 2x½x3.14x0.70mx0.23x0.1m = 0.051 cum 2x3.14/4x(0.60)²x0.23 = 0.130 cum Total deduction== (-) 0.181 cum Net 4.184 - 0.181 = 4.003 cum Say 4.00 cum Qty in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum 2x½x3.14x0.70mx0.23x0.1m = 0.051 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Total = 0.378 cum Say 0.38 cum Total for 2.25 m depth = 4.0+ 0.38 =4.38 cum Net difference = 4.38 - 2.89 = 1.49 cum					
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantling cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size) Qty for 4.25m depth 2x1.4x(0.90/2)x(0.65+0.75)/2 = 0.882 cum Less pipe :1.4x3.14/4x(0.60)²(-) = 0.396 cum = 0.486 cum Say 0.49 cum Qty for 2.45m depth 2x1.4x(0.90/2)x(0.20+0.30)/2 = 0.315 cum Less pipe :1.4x3.14/4x(0.15)²(-) = 0.025 cum = 0.290 cum Say 0.29 cum Net difference = 0.49 - 0.29 = 0.20 cum	cum	1.49	2060.20	3069.70	A
15.2.1	Rate as per item no 15.2.1 of SH : Demolishing and dismantling Cost for 1.8 metre depth Cost for 1 metre depth Say	cum	0.20	2434.25	486.85 3556.55 1975.86 1975.85	A

19.25.4 Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m depth)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 0.61 metre Dismantling cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) 1.98x1.98x0.30 = 1.178 cum. Say 1.18 cum.					
15.2.1	(Rate as per item No.15.2.1 of SH. dismantling and Demolishing) Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) Curved on plan 3.14x1.45x0.85x0.23 = 0.891 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total = 0.891 + 1.069 = 1.96 cum Duduct arch ring and portion of pipe 2x1/2x3.14x0.25mx0.23x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.23 = 0.008 cum Total deduction = 0.026 cum Net quantity 1.96-0.026 = 1.934 Say 1.93 cum Qty in arch 2x1/2x3.14x0.25 m x0.23x0.10 m = 0.018 cum Say 0.02 cum	cum	1.18	2434.25	2872.42	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Total = 1.93 + 0.02 = 1.97 cum					
15.7.4	Rate as per item no 15.7.4 of SH : Dismantling and demolishing Dismantling cemnet concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum = 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Net qty== 0.2554 cum Say 0.26 cum For fixing cover : 3.14/4 x d2 x thickness 0.7854x1.020x1.020x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-)0.037 cum Net qty= 0.086 cum Say 0.09 cum Total = 0.26 + 0.09 = 0.35 cum	cum	1.97	2060.20	4058.59	A
15.2.1	Rate as per item no 15.2.1 of SH : Dismantling	cum	0.35	2434.25	851.99	A
9999	Removal of SFRC cover	L.S.	7.15	2.27	16.23	
9999	Removal of M.S. foot rests	L.S.	8.09	2.27	18.36	
	Deduct cost of dismantling manhole 1.68m deep					
19.24.4	Rate as per Item No.19.24.4 of SH: DRAINAGE	each	-1.00	6472.40	-6472.40	A
	TOTAL				1345.19	W
	Add 1 % Water charges on “W-A”				0.35	
	TOTAL				1345.54	X
	Add GST on “X-A” (multiplying factor 0.2127)				7.43	
	TOTAL				1352.97	Y
	Add 15% CPOH on “Y-A”				6.36	
	TOTAL				1359.33	Z
	Add Cess @ 1% on “Z-A”				0.49	
	Cost of manhole 0.61m depth				1359.82	
	Cost per metre depth				2229.21	
	Say				2229.20	

19.26 Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :

19.26.1 Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one manhole Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III): 3 aggregate stone 20 mm nominal size) = 1.36x1.26x0.15 = 0.257 cum Less cover with frame portion 0.85x0.70x0.15 =(-) 0.089 cum Net qty=0.168 cum Say 0.17 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
15.3	Rate as per item no. 15.3 of SH : Dismantling and demolishing	cum	0.17	3551.25	603.71	A
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.27	16.23	
	Removal of R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	For raised slab = 1.36x1.26x0.15 = 0.257 cum					
	Less portion cover with frame = 0.85x0.70x0.15 =(-) 0.089 cum					
	Net qty = 0.168 cum Say 0.17 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.17	9045.75	1537.78	A
	Form work = 0.90x0.80 = 0.72 sqm					
	Less cover = 0.60x0.45 =(-) 0.27 sqm					
	Net qty = 0.45 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC work	sqm	0.45	927.25	417.26	A
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				2605.67	W
	Add 1 % Water charges on “W-A”				0.47	
	TOTAL				2606.14	X
	Add GST on “X-A” (multiplying factor 0.2127)				10.08	
	TOTAL				2616.22	Y
	Add 15% CPOH on “Y-A”				8.62	
	TOTAL				2624.84	Z
	Add Cess @ 1% on “Z-A”				0.66	
	Cost of one no				2625.50	
	Say				2625.50	

19.26.2 Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one manhole					
	Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand : 3 aggregate stone 20 mm nominal size)					
	1.66x1.36x0.15 = 0.339 cum					
	Less for R.C.C cover with frame					
	3.14/4x(0.80)²x0.15 =(-) 0.075 cum					
	Net qty 0.264 cum Say 0.26 cum					
15.3	Rate as per item no. 15.3 of SH : Dismantling and demolishing	cum	0.26	3551.25	923.33	A
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.27	16.23	
	R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	1.66x1.36x0.15 = 0.339 cum					
	Less portion cover with frame = 3.14/4x0.80x0.80x0.15 =(-) 0.075 cum					
	Net qty= 0.264 cum Say 0.26 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.26	9045.75	2351.90	A
	Form work = 1.2x0.90 = 1.08 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Less cover = 3.14/4x(0.50)² =(-) 0.196 sqm					
	Net qty= 0.884 sqm Say .88 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC work	sqm	0.88	927.25	815.98	A
9999	Sundries	L.S.	16.64	2.27	37.77	
	TOTAL				4145.21	W
	Add 1 % Water charges on "W-A"				0.54	
	TOTAL				4145.75	X
	Add GST on "X-A" (multiplying factor 0.2127)				11.60	
	TOTAL				4157.35	Y
	Add 15% CPOH on "Y-A"				9.92	
	TOTAL				4167.27	Z
	Add Cess @ 1% on "Z-A"				0.76	
	Cost of one no				4168.03	
	Say				4168.05	

19.26.3 Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one manhole					
	Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand : 3 aggregate stone 20 mm nominal size)					
	1.66x1.36x0.15 = 0.339 cum					
	Less for R.C.C cover with frame 3.14/4x(0.90)²x0.15 =(-) 0.095 cum					
	Net qty 0.244 cum Say 0.24 cum					
15.3	Rate as per item no 15.3 of SH : Dismantling and demolishing	cum	0.24	3551.25	852.30	A
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.27	16.23	
	R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	1.66x1.36x0.15 = 0.339 cum					
	Less portion cover with frame = 3.14/4x0.90x0.90x0.15 =(-) 0.095 cum					
	Net qty= 0.244 cum Say 0.24 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.24	9045.75	2170.98	A
	Form work = 1.2x0.90 = 1.08 sqm					
	Less cover = 3.14/4x(0.56)² =(-) 0.246 sqm					
	Net qty= 0.834 sqm Say .83 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC work	sqm	0.83	927.25	769.62	A
9999	Sundries	L.S.	20.28	2.27	46.04	
	TOTAL				3855.17	W
	Add 1 % Water charges on "W-A"				0.62	
	TOTAL				3855.79	X
	Add GST on "X-A" (multiplying factor 0.2127)				13.38	
	TOTAL				3869.17	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				11.44	
	TOTAL				3880.61	Z
	Add Cess @ 1% on "Z-A"				0.88	
	Cost of one no				3881.49	
	Say				3881.50	

19.26.4 Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one manhole					
	Dismantling of C.C slab of 1:2:4 (1 cement 2 coarse sand : 4 aggregate stone 20 mm nominal size)					
	= 3.14/4x(0.985)²x0.15 = 0.114 cum					
	Less cover =3.14/4x(0.90)²x0.15 =(-) 0.095 cum					
	Net qty= 0.019 cum Say 0.02 cum					
15.3	Rate as per item no. 15.3 of SH : Dismantling and demolishing	cum	0.02	3551.25	71.03	A
9999	Removal of R.C.C cover and frame	L.S.	8.06	2.27	18.30	
	C.C work 1:2:4 (1 cement : 2 coarse sand 4 graded stone aggregate 20 mm nominal size)					
	3.14/4x(0.985)²x0.15 = 0.114 cum					
	Less portion cover with frame = 3.14/4x(0.90)²x0.15 =(-) 0.095 cum					
	Net qty= 0.019 cum Say 0.02 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.02	7878.50	157.57	A
9999	Sundries	L.S.	20.28	2.27	46.04	
	TOTAL				292.94	W
	Add 1 % Water charges on "W-A"				0.64	
	TOTAL				293.58	X
	Add GST on "X-A" (multiplying factor 0.2127)				13.82	
	TOTAL				307.40	Y
	Add 15% CPOH on "Y-A"				11.82	
	TOTAL				319.22	Z
	Add Cess @ 1% on "Z-A"				0.91	
	Cost of one no				320.13	
	Say				320.15	

19.27 Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :

19.27.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber					
	MATERIAL					
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	1.11mx1.06mx0.15 m= 0.176 cum Say 0.18 cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 2.82 m x 0.23m x0.45 m = 0.29 cum	cum	0.18	6189.65	1114.14	A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 1.90x0.45 m = 0.855 sqm Bed : 0.45x0.50 m = 0.225 sqm Total= 1.080 sqm	cum	0.29	7370.65	2137.49	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 2.82x0.23x0.15 m = 0.097 cum Say 0.10 cum	sqm	1.08	449.55	485.51	A
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work Form work 3.50x0.15 m = 0.525 sqm Say 0.53 sqm	cum	0.10	7878.50	787.85	A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.53	842.50	446.53	A
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	1.00	665.00	665.00	
9977	Carriage of R.C.C. grating	L.S.	7.15	2.27	16.23	
9999	Fixing R.C.C. grating	L.S.	5.33	2.27	12.10	
	TOTAL				5664.85	W
	Add 1 % Water charges on “W-A”				6.93	
	TOTAL				5671.78	X
	Add GST on “X-A” (multiplying factor 0.2127)				148.95	
	TOTAL				5820.73	Y
	Add 15% CPOH on “Y-A”				127.38	
	TOTAL				5948.11	Z
	Add Cess @ 1% on “Z-A”				9.77	
	Cost of one chamber				5957.88	
	Say				5957.90	

19.28 Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :

19.28.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.06mx1.06mx0.15 m= 0.17 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.17	6189.65	1052.24	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 2.72 m x 0.23m x0.70 m = 0.438 cum Deduct opening 0.45x0.23x0.10 m = 0.01 cum Block 3x(0.075)³ = 0.001 cum Total deduction = 0.011 cum Net qty. = 0.438 (-) 0.011 = 0.427 cum Say 0.43 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.43	7370.65	3169.38	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 1.80x0.70 m = 1.26 sqm Bed : 0.45x0.45 m = 0.202 sqm Top : 0.45x0.20 m = 0.09 sqm Sides : 2x0.20x0.10 m = 0.04 sqm Total= 1.592 sqm Deduct opening 0.45x0.10 m = 0.045 sqm Net qty. = 1.592 (-) 0.045 = 1.547 cum Say 1.55 cum					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.55	449.55	696.80	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) Block = 3x(0.75)³ = 0.001 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.001	7878.50	7.88	A
	R.C.C. 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 0.91x0.91x0.075 m = 0.062 cum Say 0.06 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.06	9045.75	542.75	A
	Form work 0.45x0.45 m = 0.202 sqm 0.45x0.20 m = 0.09 sqm outside slab : 3.40x0.075 m = 0.255 sqm Total= 0.547 sqm Say 0.55 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC T.M.T. bars steel reinforcement for R.C.C work	sqm	0.55	842.50	463.38	A
	0.062 cum @ 80 kg/cum = 4.96 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	4.96	107.85	534.94	A
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	1.00	250.00	250.00	
9999	Fixing and carriage of R.C.C. grating	L.S.	20.67	2.27	46.92	
	TOTAL				6764.29	W
	Add 1 % Water charges on “W-A”				2.97	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				6767.26	X
	Add GST on "X-A" (multiplying factor 0.2127)				63.79	
	TOTAL				6831.05	Y
	Add 15% CPOH on "Y-A"				54.55	
	TOTAL				6885.60	Z
	Add Cess @ 1% on "Z-A"				4.18	
	Cost of one chamber				6889.78	
	Say				6889.80	

19.29 Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :

19.29.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber					
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	1.71mx1.11mx0.15 m = 0.285 cum Say 0.29 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.29	6189.65	1795.00	A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)					
	1.86 m x 0.23m x0.45 m = 0.193 cum					
	2.26mx0.23mx0.70 m = 0.364 cum					
	Total= 0.557 cum					
	Deduct lintel portion					
	2x0.23x0.20x0.20 m = (-) 0.018 cum					
	Nte Qty= 0.0539 cum Say 0.54 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.54	7370.65	3980.15	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	Wall : 1.80x0.70 m = 1.26 sqm					
	Wall : 1.40x0.45 m = 0.63 sqm					
	Bed : 1.10x0.50 m = 0.55 sqm					
	Total= 2.44 sqm					
	Deduct 2x0.20x0.20 m = (-) 0.08 sqm					
	Net Qty= 2.36 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.36	449.55	1060.94	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
	Block = 1.92x0.23x0.15 = 0.07 cum					
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.07	7878.50	551.50	A
	R.C.C. 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	0.88x0.96x0.075 m = 0.063 cum Say 0.06 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.06	9045.75	542.75	A
	R.C.C. 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) in lintels 1x0.96x0.20x0.20 m = 0.04 cum					
5.13	Rate as per item no. 5.13 of SH : RCC work	cum	0.04	14325.95	573.04	A
	Less labour for not lifting the materilas upto floor five level					
0115	Coolie (0.04x0.75x1.50=0.045 same as in item no 5.13)	day	-0.045	736.00	-33.12	
	Form work					
	Slab bottom 0.50x0.65 m = 0.325 sqm					
	Outer periphery 3.50x0.075 m = 0.263 sqm					
	2.20x0.15 m = 0.330 sqm					
	= 0.918 sqm Say 0.91 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC T.M.T. bars steel reinforcement for R.C.C work	sqm	0.91	842.50	766.68	A
	(0.06+0.04) = 0.10 cum @ 80 kg/cum = 8.00 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	8.00	107.85	862.80	A
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	1.00	665.00	665.00	
9977	Carriage of R.C.C. grating	L.S.	7.15	2.27	16.23	
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	1.00	250.00	250.00	
9999	Labour for fixing precast R.C.C. grating and frame	L.S.	34.06	2.27	77.32	
	TOTAL				11108.29	W
	Add 1 % Water charges on “W-A”				9.75	
	TOTAL				11118.04	X
	Add GST on “X-A” (multiplying factor 0.2127)				209.55	
	TOTAL				11327.59	Y
	Add 15% CPOH on “Y-A”				179.21	
	TOTAL				11506.80	Z
	Add Cess @ 1% on “Z-A”				13.74	
	Cost of one chamber				11520.54	
	Say				11520.55	

19.30 Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 fine sand : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:

19.30.1 Inside dimensions 455x610 mm and 45 cm deep for single pipe line :

19.30.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber					
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	1.22mx1.065mx0.15 m= 0.195 cum Say 0.20 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.20	6189.65	1237.93	A
	Brick work in bricks of clas designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)					
	3.05 m x 0.23m x0.30 m = 0.210 cum					
	Less pipe					
	2x3.14/4x(0.10)²x0.23 m = (-) 0.004 cum					
	Net Qty= 0.206 cum Say 0.21 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.21	7370.65	1547.84	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	Wall : 2.13x0.30 m = 0.639 sqm					
	Bed : 0.61x0.455 m = 0.278 sqm					
	Total= 0.917 sqm					
	Less pipe 2x3.14/4x(0.10)² = (-) 0.016 sqm					
	Net Qty= 0.901 sqm Say 0.90 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.90	449.55	404.60	A
	Cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	3.05x0.23x0.15 = 0.105 cum say 0.11 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.11	9045.75	995.03	A
	Form work					
	Outer periphery 3.73x0.15 m = 0.56 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.56	842.50	471.80	A
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1540.00	1540.00	
9977	Carriage of C.I.cover and frame	L.S.	7.15	2.27	16.23	
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				6260.35	W
	Add 1 % Water charges on “W-A”				16.03	
	TOTAL				6276.38	X
	Add GST on “X-A” (multiplying factor 0.2127)				344.40	
	TOTAL				6620.78	Y
	Add 15% CPOH on “Y-A”				294.54	
	TOTAL				6915.32	Z
	Add Cess @ 1% on “Z-A”				22.58	
	Cost of one chamber				6937.90	
	Say				6937.90	

19.30.2 Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :

19.30.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one no.					
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	1.31mx1.11mx0.15 m= 0.22 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.22	6189.65	1361.72	A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand)					
	3.32 m x 0.23m x0.30 m = 0.229 cum					
	Less pipe					
	3x3.14x(0.10)²x0.23 m = (-) 0.005 cum					
	Net Qty= 0.224 cum Say 0.22 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.22	7370.65	1621.54	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	Wall : 2.40x0.30 m = 0.72 sqm					
	Bed : 0.70x0.50 m = 0.35 sqm					
	= 1.07 sqm					
	Less pipe 3x3.14/4x(0.10)² = (-) 0.02 sqm					
	Net Qty= 1.05 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.05	449.55	472.03	A
	R.C.C 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	1.16x0.96x0.15 = 0.167 cum					
	Deduct cover					
	0.61x0.45x0.15 m = (-) 0.042 cum					
	Net Qty= 0.125 cum Say 0.13 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.13	9045.75	1175.95	A
	Form work					
	Inside area of chamber : 0.70x0.50 m = 0.35 sqm					
	Outer periphery 4.00x0.15 m = 0.60 sqm					
	= 0.95 sqm					
	Deduct cover : 0.61x0.455 m = (-) 0.278 sqm					
	= 0.672 sqm Say 0.67 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC T.M.T. bars steel reinforcement for R.C.C work of slab	sqm	0.67	842.50	564.48	A
	0.13 cum @ 48.06 kg/cum = 6.25 kg					
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	6.25	107.85	674.06	A
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1540.00	1540.00	
9977	Carriage of C.I. Cover and frame	L.S.	7.15	2.27	16.23	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				7472.93	W
	Add 1 % Water charges on "W-A"				16.03	
	TOTAL				7488.96	X
	Add GST on "X-A" (multiplying factor 0.2127)				344.40	
	TOTAL				7833.36	Y
	Add 15% CPOH on "Y-A"				294.54	
	TOTAL				8127.90	Z
	Add Cess @ 1% on "Z-A"				22.58	
	Cost of one chamber				8150.48	
	Say				8150.50	

19.30.3 Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :

19.30.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one chamber					
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	1.46mx1.21mx0.15 m= 0.26 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.26	6189.65	1609.31	A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)					
	3.82 m x 0.23m x0.30 m = 0.26 cum					
	Less pipe					
	$5x3.14x(0.10)^2x0.23$ m = (-) 0.009 cum					
	Net Qty= 0.255 cum Say 0.26 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.26	7370.65	1916.37	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	Wall : 2.90x0.30 m = 0.87 sqm					
	Bed : 0.85x0.60 m = 0.51 sqm					
	Total= 1.38 sqm					
	Less pipe $5x3.14/4x(0.10)^2$ = (-) 0.04 sqm					
	Net Qty= 1.34 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.34	449.55	602.40	A
	R.C.C 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	1.31x1.06x0.15 = 0.208 cum					
	Deduct cover					
	0.61x0.455x0.15 m = (-) 0.042 cum					
	Net Qty= 0.166 cum Say 0.17 cum					
5.1.2	Rate as per item no. 5.1.2 of SH : RCC work	cum	0.17	9045.75	1537.78	A
	Form work					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Inside area of chamber : 0.85x0.60 m = 0.511 sqm Outer periphery 4.50x0.15 m = 0.675 sqm Total= 1.186 sqm Deduct cover : 0.61x0.455 m = (-) 0.278 sqm Net Qty= 0.908 sqm Say 0.91 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC T.M.T. bars steel reinforcement for R.C.C work of slab 0.17 cum @ 48.06 kg/cum = 48.06x0.17cum = 8.17 kg	sqm	0.91	842.50	766.68	A
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work	kg	8.17	107.85	881.13	A
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1540.00	1540.00	
9977	Carriage of C.I. Cover and frame	L.S.	7.15	2.27	16.23	
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				8916.82	W
	Add 1 % Water charges on “W-A”				16.03	
	TOTAL				8932.85	X
	Add GST on “X-A” (multiplying factor 0.2127)				344.40	
	TOTAL				9277.25	Y
	Add 15% CPOH on “Y-A”				294.54	
	TOTAL				9571.79	Z
	Add Cess @ 1% on “Z-A”				22.58	
	Cost of one chamber				9594.37	
	Say				9594.35	

19.31 Extra for depth beyond 45 cm of brick masonry chamber :

19.31.1 For 455x610 mm size

19.31.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre Brick work in bricks of clas designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 3.05 m x 0.23m x1.00 m = 0.70 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.70	7370.65	5159.46	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.13x1.00 m = 2.13 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.13	449.55	957.54	A
	TOTAL				6117.00	
	Cost per metre				6117.00	
	Say				6117.00	

19.31.2 For 500x700 mm size

19.31.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand) 3.32 m x 0.23m x1.00 m = 0.76 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.76	7370.65	5601.69	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.40x1.00 m = 2.40 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.40	449.55	1078.92	A
	TOTAL				6680.61	
	Cost per metre				6680.61	
	Say				6680.60	

19.31.3 For 600x850 mm size

19.31.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement: 4 coarse sand) 3.82 m x 0.23m x1.00 m = 0.88 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.88	7370.65	6486.17	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.90x1.00 m = 2.90 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.9	449.55	1303.70	A
	TOTAL				7789.87	
	Cost per metre				7789.87	
	Say				7789.85	

19.32 Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.

19.32.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one soak pit Earth work in excavation including disposal of surplus earth $3.14/4x(2.5)^2x3m$ = 14.73 cum					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	14.73	260.30	3834.22	A
	= $3.14/4x(2.5)^2$ x 1.5 m = 7.37 cum 2nd class bricks perimetre = 4x0.35 =1.40 m Area = 1.40x2.925 m = 4.1 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Number of brick = 4.1x487x0.066 = 131.78 Wastage 10% = 13.718 Total= 144.96 Say 145 numbers					
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 Brick bats = 3.14/4x(1.2)²x2.925m =3.33 cum Deduct = 0.45x0.45x2.925 m = 0.59 cum Net qty= 2.74 cum	1000 Nos	0.145	4724.00	684.98	
0362	Brick bats Brick aggregate 50 to 80 mm nominal size = 3.14x1.50x0.03x2.925 m = 4.13 cum	cum	2.74	525.00	1438.50	
0285	Brick Aggregate (Single size) : 63 mm nominal size Brick aggregate 40 mm nominal size = 3.14x2.15x0.35x2.925 m =6.91 cum	cum	4.13	700.00	2891.00	
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	6.91	700.00	4837.00	
1854	Stoneware pipes grade A (60 cm long) 100 mm dia Carriage of brick bats and aggregate	each	3.00	77.00	231.00	
2260	Carriage of Brick aggregate	cum	13.78	0.00	0.00	
2201	Carriage of Bricks	1000 Nos	0.145	0.00	0.00	
9999	Single matting 2.5x2.5 m = 6.25 sqm	L.S.	112.14	2.27	254.56	
	Precast R.C.C.slabs 7.5 cm thick in cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 0.45x0.45x0.075 m = 0.02 cum					
5.12	Rate as per item no 5.12 of SH : RCC Reinforcement @ 80 kg/cum = 0.02x80 =1.6 kg	cum	0.02	10585.90	211.72	A
5.22.6	Rate as per item no. 5.22.6 of SH : RCC work 2nd class brick edging laid length wise with half brick depth 3.14x2.6 m =8.17 m	kg	1.60	107.85	172.56	A
16.8.1	Rate as per item no. 16.8.1 of SH : Road work LABOUR	metre	8.17	53.45	436.69	A
0123	Mason 1st class	day	0.50	897.00	448.50	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	3.00	736.00	2208.00	
0115	Coolie	day	3.00	736.00	2208.00	
	TOTAL				20264.73	W
	Add 1 % Water charges on “W-A”				156.10	
	TOTAL				20420.83	X
	Add GST on “X-A” (multiplying factor 0.2127)				3353.35	
	TOTAL				23774.18	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				2867.85	
	TOTAL				26642.03	Z
	Add Cess @ 1% on "Z-A"				219.87	
	Cost of one soak pit				26861.90	
	Say				26861.90	

19.33 Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one soak pit					
	Earth work in excavation including disposal of surplus earth 1.2x1.2x1.2m = 1.73 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	1.73	260.30	450.32	A
0362	Brick bats 1.2x1.2x1.2 = 1.73 cum	cum	1.73	525.00	908.25	
2260	Carriage of Brick aggregate	cum	1.73	0.00	0.00	
16.8.1	Rate as per item no. 16.8.1 of SH : Road work	metre	5.20	53.45	277.94	A
	Second class brick edging laid length wise with half brick depth					
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	2.00	77.00	154.00	
9999	Sundries	L.S.	25.84	2.27	58.66	
	LABOUR					
	For filling brick bats					
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries	L.S.	13.52	2.27	30.69	
	TOTAL				2247.86	W
	Add 1 % Water charges on "W-A"				15.20	
	TOTAL				2263.06	X
	Add GST on "X-A" (multiplying factor 0.2127)				326.45	
	TOTAL				2589.51	Y
	Add 15% CPOH on "Y-A"				279.19	
	TOTAL				2868.70	Z
	Add Cess @ 1% on "Z-A"				21.40	
	Cost of one soak pit				2890.10	
	Say				2890.10	

19.34 Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :

19.34.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of 10 nos.					
	MATERIAL					
7128	S.W. intercepting trap 100 mm dia	each	10.000	200.00	2000.00	
9977	Carriage of trap	L.S.	10.400	2.27	23.61	
0367	Portland Cement (OPC-43 grade)	tonne	0.013	5156.00	67.03	
2209	Carriage of Cement	tonne	0.013	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.010	980.00	9.80	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.010	0.00	0.00	
1881	Spun yarn	kilogram	0.900	61.00	54.90	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0123	Mason 1st class	day	0.200	897.00	179.40	
0124	Mason 2nd class	day	0.200	816.00	163.20	
0114	Beldar	day	0.600	736.00	441.60	
0101	Bhisti	day	0.200	816.00	163.20	
	TOTAL				3102.74	W
	Add 1 % Water charges on “W”				31.03	
	TOTAL				3133.77	X
	Add GST on “X” (multiplying factor 0.2127)				666.55	
	TOTAL				3800.32	Y
	Add 15% CPOH on “Y”				570.05	
	TOTAL				4370.37	Z
	Add Cess @ 1% on “Z”				43.70	
	Cost of 10 nos.				4414.07	
	Cost of one no.				441.41	
	Say				441.40	

19.34.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of 10 nos.					
	MATERIAL					
7129	S.W. intercepting trap 150 mm dia	each	10.000	262.00	2620.00	
9977	Carriage of trap	L.S.	20.800	2.27	47.22	
0367	Portland Cement (OPC-43 grade)	tonne	0.019	5156.00	97.96	
2209	Carriage of Cement	tonne	0.019	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.014	980.00	13.72	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.014	0.00	0.00	
1881	Spun yarn	kilogram	1.800	61.00	109.80	
	LABOUR					
0123	Mason 1st class	day	0.300	897.00	269.10	
0124	Mason 2nd class	day	0.300	816.00	244.80	
0114	Beldar	day	0.800	736.00	588.80	
0101	Bhisti	day	0.300	816.00	244.80	
	TOTAL				4236.20	W
	Add 1 % Water charges on “W”				42.36	
	TOTAL				4278.56	X
	Add GST on “X” (multiplying factor 0.2127)				910.05	
	TOTAL				5188.61	Y
	Add 15% CPOH on “Y”				778.29	
	TOTAL				5966.90	Z
	Add Cess @ 1% on “Z”				59.67	
	Cost of 10 nos.				6026.57	
	Cost of one no.				602.66	
	Say				602.65	

19.35 Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/ spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete

19.35.1 450 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1728	RCC pipe 450 mm dia NP-3 spigot	metre	10.00	1605.00	16050.00	
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5156.00	61.87	
2209	Carriage of Cement	tonne	0.012	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.017	980.00	16.66	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.017	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.375	897.00	336.38	
0124	Mason 2nd class	day	0.375	816.00	306.00	
0114	Beldar	day	2.41	736.00	1773.76	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				18813.95	W
	Add 1 % Water charges on “W”				188.14	
	TOTAL				19002.09	X
	Add GST on “X” (multiplying factor 0.2127)				4041.74	
	TOTAL				23043.83	Y
	Add 15% CPOH on “Y”				3456.57	
	TOTAL				26500.40	Z
	Add Cess @ 1% on “Z”				265.00	
	Detail of cost for 10 metre				26765.40	
	Rate per metre				2676.54	
	Say				2676.55	

19.35.2 600 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1729	RCC pipe 600 mm dia NP-3 spigot	metre	10.00	2140.00	21400.00	
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5156.00	82.50	
2209	Carriage of Cement	tonne	0.016	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.022	980.00	21.56	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.022	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.46	897.00	412.62	
0124	Mason 2nd class	day	0.46	816.00	375.36	
0114	Beldar	day	1.83	736.00	1346.88	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				23908.20	W
	Add 1 % Water charges on “W”				239.08	
	TOTAL				24147.28	X
	Add GST on “X” (multiplying factor 0.2127)				5136.13	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				29283.41	Y
	Add 15% CPOH on "Y"				4392.51	
	TOTAL				33675.92	Z
	Add Cess @ 1% on "Z"				336.76	
	Detail of cost for 10 metre				34012.68	
	Rate per metre				3401.27	
	Say				3401.25	

19.35.3 900 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1730	RCC pipe 900 mm dia NP-3 spigot	metre	10.00	3395.00	33950.00	
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.025	5156.00	128.90	
2209	Carriage of Cement	tonne	0.025	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.033	980.00	32.34	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.625	897.00	560.63	
0124	Mason 2nd class	day	0.625	816.00	510.00	
0114	Beldar	day	3.00	736.00	2208.00	
0101	Bhisti	day	0.50	816.00	408.00	
	TOTAL				37797.87	W
	Add 1 % Water charges on "W"				377.98	
	TOTAL				38175.85	X
	Add GST on "X" (multiplying factor 0.2127)				8120.00	
	TOTAL				46295.85	Y
	Add 15% CPOH on "Y"				6944.38	
	TOTAL				53240.23	Z
	Add Cess @ 1% on "Z"				532.40	
	Detail of cost for 10 metre				53772.63	
	Rate per metre				5377.26	
	Say				5377.25	

19.35.4 1000 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1731	RCC pipe 1000 mm dia NP-3 spigot	metre	10.00	4185.00	41850.00	
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.028	5156.00	144.37	
2209	Carriage of Cement	tonne	0.028	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.037	980.00	36.26	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.037	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.68	897.00	609.96	
0124	Mason 2nd class	day	0.68	816.00	554.88	
0114	Beldar	day	4.33	736.00	3186.88	
0101	Bhisti	day	0.50	816.00	408.00	
	TOTAL				46790.35	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				467.90	
	TOTAL				47258.25	X
	Add GST on "X" (multiplying factor 0.2127)				10051.83	
	TOTAL				57310.08	Y
	Add 15% CPOH on "Y"				8596.51	
	TOTAL				65906.59	Z
	Add Cess @ 1% on "Z"				659.07	
	Detail of cost for 10 metre				66565.66	
	Rate per metre				6656.57	
	Say				6656.55	

19.35.5 1200 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1732	RCC pipe 1200 mm dia NP-3 spigot	metre	10.0	5564.00	55640.00	
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.034	5156.00	175.30	
2209	Carriage of Cement	tonne	0.034	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.046	980.00	45.08	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.046	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.795	897.00	713.12	
0124	Mason 2nd class	day	0.795	816.00	648.72	
0114	Beldar	day	8.67	736.00	6381.12	
0101	Bhisti	day	0.67	816.00	546.72	
	TOTAL				64150.06	W
	Add 1 % Water charges on "W"				641.50	
	TOTAL				64791.56	X
	Add GST on "X" (multiplying factor 0.2127)				13781.16	
	TOTAL				78572.72	Y
	Add 15% CPOH on "Y"				11785.91	
	TOTAL				90358.63	Z
	Add Cess @ 1% on "Z"				903.59	
	Detail of cost for 10 metre				91262.22	
	Rate per metre				9126.22	
	Say				9126.20	

19.35.6 1800 mm dia RCC pipes. (Laying by manual/ machenical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1733	RCC pipe 1800 mm dia NP-3 spigot	metre	10.00	10110.00	101100.00	
2336	Carriage of RCC pipe above 1200 mm dia and upto 1800 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5156.00	252.64	
2209	Carriage of Cement	tonne	0.049	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.055	980.00	53.90	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.055	0.00	0.00	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0123	Mason 1st class	day	1.15	897.00	1031.55	
0124	Mason 2nd class	day	1.15	816.00	938.40	
0114	Beldar	day	13.00	736.00	9568.00	
0101	Bhisti	day	1.00	816.00	816.00	
	TOTAL				113760.49	W
	Add 1 % Water charges on “W”				1137.60	
	TOTAL				114898.09	X
	Add GST on “X” (multiplying factor 0.2127)				24438.82	
	TOTAL				139336.91	Y
	Add 15% CPOH on “Y”				20900.54	
	TOTAL				160237.45	Z
	Add Cess @ 1% on “Z”				1602.37	
	Detail of cost for 10 metre				161839.82	
	Rate per metre				16183.98	
	Say				16184.00	

19.36 Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/ spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete

19.36.1 450 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1734	RCC pipe 450 mm dia NP-4 spigot	metre	10.0	1870.00	18700.00	
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5156.00	61.87	
2209	Carriage of Cement	tonne	0.012	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.017	980.00	16.66	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.017	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.375	897.00	336.38	
0124	Mason 2nd class	day	0.375	816.00	306.00	
0114	Beldar	day	2.41	736.00	1773.76	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				21463.95	W
	Add 1 % Water charges on “W”				214.64	
	TOTAL				21678.59	X
	Add GST on “X” (multiplying factor 0.2127)				4611.04	
	TOTAL				26289.63	Y
	Add 15% CPOH on “Y”				3943.44	
	TOTAL				30233.07	Z
	Add Cess @ 1% on “Z”				302.33	
	Detail of cost for 10 metre				30535.40	
	Rate per metre				3053.54	
	Say				3053.55	

19.36.2 600 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1735	RCC pipe 600 mm dia pipe NP-4 spigot	metre	10.0	2515.00	25150.00	
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5156.00	82.50	
2209	Carriage of Cement	tonne	0.016	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.022	980.00	21.56	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.022	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.46	897.00	412.62	
0124	Mason 2nd class	day	0.46	816.00	375.36	
0114	Beldar	day	1.83	736.00	1346.88	
0101	Bhisti	day	0.33	816.00	269.28	
	TOTAL				27658.20	W
	Add 1 % Water charges on “W”				276.58	
	TOTAL				27934.78	X
	Add GST on “X” (multiplying factor 0.2127)				5941.73	
	TOTAL				33876.51	Y
	Add 15% CPOH on “Y”				5081.48	
	TOTAL				38957.99	Z
	Add Cess @ 1% on “Z”				389.58	
	Detail of cost for 10 metre				39347.57	
	Rate per metre				3934.76	
	Say				3934.75	

19.36.3 900 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1736	RCC pipe 900 mm dia pipe NP-4 spigot	metre	10.0	4815.00	48150.00	
2331	R.C.C. pipes 900 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.025	5156.00	128.90	
2209	Carriage of Cement	tonne	0.025	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.033	980.00	32.34	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.625	897.00	560.63	
0124	Mason 2nd class	day	0.625	816.00	510.00	
0114	Beldar	day	3.00	736.00	2208.00	
0101	Bhisti	day	0.5	816.00	408.00	
	TOTAL				51997.87	W
	Add 1 % Water charges on “W”				519.98	
	TOTAL				52517.85	X
	Add GST on “X” (multiplying factor 0.2127)				11170.55	
	TOTAL				63688.40	Y
	Add 15% CPOH on “Y”				9553.26	
	TOTAL				73241.66	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				732.42	
	Detail of cost for 10 metre				73974.08	
	Rate per metre				7397.41	
	Say				7397.40	

19.36.4 1000 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1737	RCC pipe 1000 mm dia pipe NP-4 spigot	metre	10.0	5960.00	59600.00	
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.028	5156.00	144.37	
2209	Carriage of Cement	tonne	0.028	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.037	980.00	36.26	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.037	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.68	897.00	609.96	
0124	Mason 2nd class	day	0.68	816.00	554.88	
0114	Beldar	day	4.33	736.00	3186.88	
0101	Bhisti	day	0.5	816.00	408.00	
	TOTAL				64540.35	W
	Add 1 % Water charges on "W"				645.40	
	TOTAL				65185.75	X
	Add GST on "X" (multiplying factor 0.2127)				13865.01	
	TOTAL				79050.76	Y
	Add 15% CPOH on "Y"				11857.61	
	TOTAL				90908.37	Z
	Add Cess @ 1% on "Z"				909.08	
	Detail of cost for 10 metre				91817.45	
	Rate per metre				9181.75	
	Say				9181.75	

19.36.5 1200 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1738	RCC pipe 1200 mm dia pipe NP-4 spigot	metre	10.0	6965.00	69650.00	
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.034	5156.00	175.30	
2209	Carriage of Cement	tonne	0.034	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.046	980.00	45.08	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.046	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	0.795	897.00	713.12	
0124	Mason 2nd class	day	0.795	816.00	648.72	
0114	Beldar	day	8.67	736.00	6381.12	
0101	Bhisti	day	0.67	816.00	546.72	
	TOTAL				78160.06	W
	Add 1 % Water charges on "W"				781.60	
	TOTAL				78941.66	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				16790.89	
	TOTAL				95732.55	Y
	Add 15% CPOH on "Y"				14359.88	
	TOTAL				110092.43	Z
	Add Cess @ 1% on "Z"				1100.92	
	Detail of cost for 10 metre				111193.35	
	Rate per metre				11119.34	
	Say				11119.35	

19.36.6 1800 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1739	RCC pipe 1800 mm dia pipe NP-4 spigot	metre	10.0	14605.00	146050.00	
2336	RCC pipe above 1200 mm dia and upto 1800 mm dia	100 metre	0.10	0.00	0.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5156.00	252.64	
2209	Carriage of Cement	tonne	0.049	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.055	980.00	53.90	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.055	0.00	0.00	
	LABOUR					
0123	Mason 1st class	day	1.15	897.00	1031.55	
0124	Mason 2nd class	day	1.15	816.00	938.40	
0114	Beldar	day	13.00	736.00	9568.00	
0101	Bhisti	day	1.00	816.00	816.00	
	TOTAL				158710.49	W
	Add 1 % Water charges on "W"				1587.10	
	TOTAL				160297.59	X
	Add GST on "X" (multiplying factor 0.2127)				34095.30	
	TOTAL				194392.89	Y
	Add 15% CPOH on "Y"				29158.93	
	TOTAL				223551.82	Z
	Add Cess @ 1% on "Z"				2235.52	
	Detail of cost for 10 metre				225787.34	
	Rate per metre				22578.73	
	Say				22578.75	

SUB HEAD : 20.0

PILE WORK

20.1 Providing, driving with hydraulic piling rigs with power units and installing driven cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) :

20.1.1 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	Concrete -3.14/4x0.40²x20 = 2.51 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	2.51	9504.75	23856.92	A
9999	Sundries	L.S.	175.00	2.27	397.25	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	39500.00	14220.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	TOTAL				45986.93	W
	Add 1% water charges on “W -A”				221.30	
	TOTAL				46208.23	X
	Add GST on “X-A” (multiplying factor 0.2127)				4754.12	
	TOTAL				50962.35	Y
	Add 15% CP & OH on “Y-A”				4065.81	
	TOTAL				55028.16	Z
	Add 1% cess on “Z -A”				311.71	
	Cost of 20 m pile				55339.87	
	Cost for 1 m pile				2766.99	
	Say				2767.00	

20.1.2 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	Concrete -3.14/4x0.45²x20 = 3.18 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.18	9504.75	30225.11	A
9999	Sundries	L.S.	225.00	2.27	510.75	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.48	39500.00	18960.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				57208.62	W
	Add 1% water charges on “W -A”				269.84	
	TOTAL				57478.46	X
	Add GST on “X-A” (multiplying factor 0.2127)				5796.79	
	TOTAL				63275.25	Y
	Add 15% CP & OH on “Y-A”				4957.52	
	TOTAL				68232.77	Z
	Add 1% cess on “Z -A”				380.08	
	Cost of 20 m pile				68612.85	
	Cost for 1 m pile				3430.64	
	Say				3430.65	

20.1.3 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	Concrete 3.14/4x0.50²x20 = 3.925 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.925	9504.75	37306.14	A
9999	Sundries	L.S.	275.00	2.27	624.25	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.60	39500.00	23700.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				69143.15	W
	Add 1% water charges on “W -A”				318.37	
	TOTAL				69461.52	X
	Add GST on “X-A” (multiplying factor 0.2127)				6839.45	
	TOTAL				76300.97	Y
	Add 15% CP & OH on “Y-A”				5849.22	
	TOTAL				82150.19	Z
	Add 1% cess on “Z -A”				448.44	
	Cost of 20 m pile				82598.63	
	Cost for 1 m pile				4129.93	
	Say				4129.95	

20.1.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	Concrete 3.14/4x0.55²x20 = 4.75 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	4.75	9504.75	45147.56	A
9999	Sundries	L.S.	330.00	2.27	749.10	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.60	39500.00	23700.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				77109.42	W
	Add 1% water charges on “W -A”				319.62	
	TOTAL				77429.04	X
	Add GST on “X-A” (multiplying factor 0.2127)				6866.27	
	TOTAL				84295.31	Y
	Add 15% CP & OH on “Y-A”				5872.16	
	TOTAL				90167.47	Z
	Add 1% cess on “Z -A”				450.20	
	Cost of 20 m pile				90617.67	
	Cost for 1 m pile				4530.88	
	Say				4530.90	

20.1.5 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 15 m length of pile					
	Concrete 3.14/4x0.75²x15 = 6.62 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	6.62	9504.75	62921.45	A
9999	Sundries	L.S.	460.00	2.27	1044.20	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.70	39500.00	27650.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.14	897.00	125.58	
0114	Beldar	day	3.50	736.00	2576.00	
	Total				100286.23	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1% water charges on “W -A”				373.65	
	TOTAL				100659.88	X
	Add GST on “X-A” (multiplying factor 0.2127)				8026.96	
	TOTAL				108686.84	Y
	Add 15% CP & OH on “Y-A”				6864.81	
	TOTAL				115551.65	Z
	Add 1% cess on “Z -A”				526.30	
	Cost of 20 m pile				116077.95	
	Cost for 1 m pile				7738.53	
	Say				7738.55	

20.1.6 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 m length of pile					
	Concrete 3.14/4x1.00²x10 = 7.85 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	7.85	9504.75	74612.29	A
9999	Sundries	L.S.	550.00	2.27	1248.50	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.68	39500.00	26860.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.16	897.00	143.52	
0114	Beldar	day	4.00	736.00	2944.00	
	Total				111777.31	W
	Add 1% water charges on “W -A”				371.65	
	TOTAL				112148.96	X
	Add GST on “X-A” (multiplying factor 0.2127)				7984.05	
	TOTAL				120133.01	Y
	Add 15% CP & OH on “Y-A”				6828.11	
	TOTAL				126961.12	Z
	Add 1% cess on “Z -A”				523.49	
	Cost of 10 m pile				127484.61	
	Cost for 1 m pile				12748.46	
	Say				12748.45	

20.1.7 1200 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 9 m length of pile					
	Concrete 3.14/4x1.2²x9 = 10.17 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	10.17	9504.75	96663.31	A
9999	Sundries	L.S.	710.00	2.27	1611.70	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.67	39500.00	26465.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.18	897.00	161.46	
0114	Beldar	day	4.50	736.00	3312.00	
	Total				134182.47	W
	Add 1% water charges on “W -A”				375.19	
	TOTAL				134557.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				8060.13	
	TOTAL				142617.79	Y
	Add 15% CP & OH on “Y-A”				6893.17	
	TOTAL				149510.96	Z
	Add 1% cess on “Z -A”				528.48	
	Cost of 9 m pile				150039.44	
	Cost for 1 m pile				16671.05	
	Say				16671.05	

20.1.8 1500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 9 m length of pile					
	Concrete 3.14/4x1.5²x9 = 15.90 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	15.90	9504.75	151125.53	A
9999	Sundries	L.S.	1115.00	2.27	2531.05	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.77	39500.00	30415.00	
0025	Hire and running charges of light crane.	day	0.10	3900.00	390.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.20	897.00	179.40	
0114	Beldar	day	5.00	736.00	3680.00	
	Total				194055.98	W
	Add 1% water charges on “W -A”				429.30	
	TOTAL				194485.28	X
	Add GST on “X-A” (multiplying factor 0.2127)				9222.62	
	TOTAL				203707.90	Y
	Add 15% CP & OH on “Y-A”				7887.36	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				211595.26	Z
	Add 1% cess on "Z -A"				604.70	
	Cost of 9 m pile				212199.96	
	Cost for 1 m pile				23577.77	
	Say				23577.75	

20.2 Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).
Note: Truck Mounted rotary/TMR/Tubewell boring machine shall not be used .

20.2.1 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.45²x20 = 3.18 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.18	9504.75	30225.11	A
7183	Bentonite	tonne	0.25	3050.00	762.50	
9999	Sundries	L.S.	65.00	2.27	147.55	
	MACHINERY					
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	0.94	3350.00	3149.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.38	3350.00	1273.00	
0018	Hire and running charges of loader	day	0.30	6700.00	2010.00	
0017	Hire and running charges of tipper	day	0.30	4200.00	1260.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	2.50	736.00	1840.00	
	Total				41008.80	W
	Add 1% water charges on "W -A"				107.84	
	TOTAL				41116.64	X
	Add GST on "X-A" (multiplying factor 0.2127)				2316.63	
	TOTAL				43433.27	Y
	Add 15% CP & OH on "Y-A"				1981.22	
	TOTAL				45414.49	Z
	Add 1% cess on "Z -A"				151.89	
	Cost of 20 m pile				45566.38	
	Cost for 1 m pile				2278.32	
	Say				2278.30	

20.2.2 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.50²x20 = 3.925cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.925	9504.75	37306.14	A
7183	Bentonite	tonne	0.28	3050.00	854.00	
9999	Sundries	L.S.	80.00	2.27	181.60	
	MACHINERY					
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.20	3350.00	4020.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.38	3350.00	1273.00	
0018	Hire and running charges of loader	day	0.30	6700.00	2010.00	
0017	Hire and running charges of tipper	day	0.30	4200.00	1260.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	2.50	736.00	1840.00	
	Total				49086.38	W
	Add 1% water charges on “W -A”				117.80	
	TOTAL				49204.18	X
	Add GST on “X-A” (multiplying factor 0.2127)				2530.71	
	TOTAL				51734.89	Y
	Add 15% CP & OH on “Y-A”				2164.31	
	TOTAL				53899.20	Z
	Add 1% cess on “Z -A”				165.93	
	Cost of 20 m pile				54065.13	
	Cost for 1 m pile				2703.26	
	Say				2703.25	

20.2.3 600 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.60²x20 = 5.65 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	5.65	9504.75	53701.84	A
7183	Bentonite	tonne	0.33	3050.00	1006.50	
9999	Sundries	L.S.	115.00	2.27	261.05	
	MACHINERY					
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.50	3350.00	5025.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.38	3350.00	1273.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0018	Hire and running charges of loader	day	0.30	6700.00	2010.00	
0017	Hire and running charges of tipper	day	0.30	4200.00	1260.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				67087.03	W
	Add 1% water charges on “W -A”				133.85	
	TOTAL				67220.88	X
	Add GST on “X-A” (multiplying factor 0.2127)				2875.50	
	TOTAL				70096.38	Y
	Add 15% CP & OH on “Y-A”				2459.18	
	TOTAL				72555.56	Z
	Add 1% cess on “Z -A”				188.54	
	Cost of 20 m pile				72744.10	
	Cost for 1 m pile				3637.21	
	Say				3637.20	

20.2.4 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 15 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.75²x15 = 6.62 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	6.62	9504.75	62921.45	A
7183	Bentonite	tonne	0.30	3050.00	915.00	
9999	Sundries	L.S.	130.00	2.27	295.10	
	MACHINERY					
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.40	3350.00	4690.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.75	3350.00	2512.50	
0018	Hire and running charges of loader	day	0.30	6700.00	2010.00	
0017	Hire and running charges of tipper	day	0.30	4200.00	1260.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.14	897.00	125.58	
0114	Beldar	day	3.50	736.00	2576.00	
	Total				77539.63	W
	Add 1% water charges on “W -A”				146.18	
	TOTAL				77685.81	X
	Add GST on “X-A” (multiplying factor 0.2127)				3140.38	
	TOTAL				80826.19	Y
	Add 15% CP & OH on “Y-A”				2685.71	
	TOTAL				83511.90	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1% cess on "Z -A"				205.90	
	Cost of 15 m pile				83717.80	
	Cost for 1 m pile				5581.19	
	Say				5581.20	

20.2A **Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of garde M-25 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used.**

20.2A.1 600 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.60²x20 = 5.65 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	5.65	9504.75	53701.84	A
7183	Bentonite	tonne	0.33	3050.00	1006.50	
9999	Sundries	L.S.	110.00	2.27	249.70	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.75	39500.00	29625.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.38	3350.00	1273.00	
0018	Hire and running charges of loader	day	0.30	6700.00	2010.00	
0017	Hire and running charges of tipper	day	0.30	4200.00	1260.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				91675.68	W
	Add 1% water charges on "W -A"				379.74	
	TOTAL				92055.42	X
	Add GST on "X-A" (multiplying factor 0.2127)				8157.81	
	TOTAL				100213.23	Y
	Add 15% CP & OH on "Y-A"				6976.71	
	TOTAL				107189.94	Z
	Add 1% cess on "Z -A"				534.88	
	Cost of 20 m pile				107724.82	
	Cost for 1 m pile				5386.24	
	Say				5386.25	

20.2A.2 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 15 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.75²x15 = 6.62 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	6.62	9504.75	62921.45	A
7183	Bentonite	tonne	0.30	3050.00	915.00	
9999	Sundries	L.S.	130.00	2.27	295.10	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.70	39500.00	27650.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.75	3350.00	2512.50	
0018	Hire and running charges of loader	day	0.30	6700.00	2010.00	
0017	Hire and running charges of tipper	day	0.30	4200.00	1260.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.14	897.00	125.58	
0114	Beldar	day	3.50	736.00	2576.00	
	Total				100499.63	W
	Add 1% water charges on “W -A”				375.78	
	TOTAL				100875.41	X
	Add GST on “X-A” (multiplying factor 0.2127)				8072.81	
	TOTAL				108948.22	Y
	Add 15% CP & OH on “Y-A”				6904.02	
	TOTAL				115852.24	Z
	Add 1% cess on “Z -A”				529.31	
	Cost of 15 m pile				116381.55	
	Cost for 1 m pile				7758.77	
	Say				7758.75	

20.2A.3 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 m length of pile					
	MATERIAL					
	Concrete 3.14/4x1.00²x10 = 7.85 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	7.85	9504.75	74612.29	A
7183	Bentonite	tonne	0.35	3050.00	1067.50	
9999	Sundries	L.S.	155.00	2.27	351.85	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.69	39500.00	27255.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.75	3350.00	2512.50	
0018	Hire and running charges of loader	day	0.40	6700.00	2680.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0017	Hire and running charges of tipper	day	0.40	4200.00	1680.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.16	897.00	143.52	
0114	Beldar	day	4.00	736.00	2944.00	
	Total				113480.66	W
	Add 1% water charges on “W -A”				388.68	
	TOTAL				113869.34	X
	Add GST on “X-A” (multiplying factor 0.2127)				8349.97	
	TOTAL				122219.31	Y
	Add 15% CP & OH on “Y-A”				7141.05	
	TOTAL				129360.36	Z
	Add 1% cess on “Z -A”				547.48	
	Cost of 10 m pile				129907.84	
	Cost for 1 m pile				12990.78	
	Say				12990.80	

20.2A.4 1200 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 9 m length of pile					
	MATERIAL					
	Concrete 3.14/4x1.20²x9 = 10.17 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	10.17	9504.75	96663.31	A
7183	Bentonite	tonne	0.385	3050.00	1174.25	
9999	Sundries	L.S.	200.00	2.27	454.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.67	39500.00	26465.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.75	3350.00	2512.50	
0018	Hire and running charges of loader	day	0.50	6700.00	3350.00	
0017	Hire and running charges of tipper	day	0.50	4200.00	2100.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.18	897.00	161.46	
0114	Beldar	day	4.50	736.00	3312.00	
	Total				136426.52	W
	Add 1% water charges on “W -A”				397.63	
	TOTAL				136824.15	X
	Add GST on “X-A” (multiplying factor 0.2127)				8542.21	
	TOTAL				145366.36	Y
	Add 15% CP & OH on “Y-A”				7305.46	
	TOTAL				152671.82	Z
	Add 1% cess on “Z -A”				560.09	
	Cost of 9m pile				153231.91	
	Cost for 1 m pile				17025.77	
	Say				17025.75	

20.2A.5 1500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 9 m length of pile					
	MATERIAL					
	Concrete 3.14/4x1.50²x9 = 15.90 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	15.90	9504.75	151125.53	A
7183	Bentonite	tonne	0.45	3050.00	1372.50	
9999	Sundries	L.S.	315.00	2.27	715.05	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.77	39500.00	30415.00	
0025	Hire and running charges of light crane.	day	0.10	3900.00	390.00	
0026	Hire and running charges of bentonite pump.	day	0.96	3350.00	3216.00	
0018	Hire and running charges of loader	day	0.75	6700.00	5025.00	
0017	Hire and running charges of tipper	day	0.75	4200.00	3150.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.25	897.00	224.25	
0114	Beldar	day	5.00	736.00	3680.00	
	Total				199313.33	W
	Add 1% water charges on “W -A”				481.88	
	TOTAL				199795.21	X
	Add GST on “X-A” (multiplying factor 0.2127)				10352.04	
	TOTAL				210147.25	Y
	Add 15% CP & OH on “Y-A”				8853.26	
	TOTAL				219000.51	Z
	Add 1% cess on “Z -A”				678.75	
	Cost of 9m pile				219679.26	
	Cost for 1 m pile				24408.81	
	Say				24408.80	

20.3 Boring with hydraulic piling rigs with power units, providing and installing cast in situ single under reamed piles of specified diameter and length below pile cap in M-25 cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and the length of the pile to be embedded in pile cap etc. all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :

20.3.1 300 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	MATERIAL					
	Stem -3.14/4x(0.30)²x9.625 = 0.680 cum, Bulb -3.14/4x(0.75)²x0.075 = 0.033 cum, 2x 3.14/4x(0.525)²x0.150 = 0.065 cum, Total =0.778 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.778	9504.75	7394.70	A
7183	Bentonite	tonne	0.08	3050.00	244.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries	L.S.	70.00	2.27	158.90	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	39500.00	14220.00	
0025	Hire and running charges of light crane.	day	0.03	3900.00	117.00	
0026	Hire and running charges of bentonite pump.	day	0.02	3350.00	67.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				23745.36	W
	Add 1% water charges on “W -A”				163.51	
	TOTAL				23908.87	X
	Add GST on “X-A” (multiplying factor 0.2127)				3512.56	
	TOTAL				27421.43	Y
	Add 15% CP & OH on “Y-A”				3004.01	
	TOTAL				30425.44	Z
	Add 1% cess on “Z -A”				230.31	
	Cost of 10 m pile				30655.75	
	Cost for 1 m pile				3065.58	
	Say				3065.60	

20.3.2 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	MATERIAL					
	RCC - Stem - 3.14/4x(0.40)²x9.30 = 1.169 cu m Bulb - 3.14/4x(1.00)²x0.1 = 0.079 cum 2x 3.14/4x(0.7)²x0.30 = 0.23 cum, Total= 1.478 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	1.478	9504.75	14048.02	A
7183	Bentonite	tonne	0.15	3050.00	457.50	
9999	Sundries	L.S.	130.00	2.27	295.10	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	39500.00	14220.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.02	3350.00	67.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				30865.38	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1% water charges on “W -A”				168.17	
	TOTAL				31033.55	X
	Add GST on “X-A” (multiplying factor 0.2127)				3612.82	
	TOTAL				34646.37	Y
	Add 15% CP & OH on “Y-A”				3089.75	
	TOTAL				37736.12	Z
	Add 1% cess on “Z -A”				236.88	
	Cost of 10 m pile				37973.00	
	Cost for 1 m pile				3797.30	
	Say				3797.30	

20.3.3 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	MATERIAL					
	RCC-Stem -3.14/4x(0.45)²x9.212 = 1.465 cum, Bulb -3.14/4x(1.125)²x0.113 = 0.112 cum, 2x 3.14/4x(0.788)²x0.337 = 0.329 cum , Total = 1.906 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	1.906	9504.75	18116.05	A
7183	Bentonite	tonne	0.19	3050.00	579.50	
9999	Sundries	L.S.	165.00	2.27	374.55	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	39500.00	14220.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.02	3350.00	67.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				35134.86	W
	Add 1% water charges on “W -A”				170.19	
	TOTAL				35305.05	X
	Add GST on “X-A” (multiplying factor 0.2127)				3656.10	
	TOTAL				38961.15	Y
	Add 15% CP & OH on “Y-A”				3126.77	
	TOTAL				42087.92	Z
	Add 1% cess on “Z -A”				239.72	
	Cost of 10 m pile				42327.64	
	Cost for 1 m pile				4232.76	
	Say				4232.75	

20.3.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	MATERIAL					
	RCC- Stem -3.14/4x(0.50)²x9.125 = 1.792 cum, Bulb -3.14/4x(1.25)²x0.125 = 0.153 cum, 2x 3.14/4x(0.875)²x0.375 = 0.451 cum, Total = 2.396 cum say 2.40 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	2.40	9504.75	22811.40	A
7183	Bentonite	tonne	0.20	3050.00	610.00	
9999	Sundries	L.S.	210.00	2.27	476.70	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	39500.00	14220.00	
0025	Hire and running charges of light crane.	day	0.06	3900.00	234.00	
0026	Hire and running charges of bentonite pump.	day	0.02	3350.00	67.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	897.00	71.76	
0114	Beldar	day	2.00	736.00	1472.00	
	Total				39962.86	W
	Add 1% water charges on “W -A”				171.51	
	TOTAL				40134.37	X
	Add GST on “X-A” (multiplying factor 0.2127)				3684.60	
	TOTAL				43818.97	Y
	Add 15% CP & OH on “Y-A”				3151.14	
	TOTAL				46970.11	Z
	Add 1% cess on “Z -A”				241.59	
	Cost of 10 m pile				47211.70	
	Cost for 1 m pile				4721.17	
	Say				4721.15	

20.4 Extra over single under ream for providing additional bulbs in under reamed piles, under specified diameter(only the nos. of extra bulbs are to be paid)

20.4.1 300 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 bulb.					
	MATERIAL					
	Bulb - 0.033 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.033	9504.75	313.66	A
7183	Bentonite	tonne	0.003	3050.00	9.15	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	39500.00	790.00	
0025	Hire and running charges of light crane.	day	0.01	3900.00	39.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0026	Hire and running charges of bentonite pump.	day	0.01	3350.00	33.50	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.02	897.00	17.94	
0114	Beldar	day	1.00	736.00	736.00	
	Total				1939.25	W
	Add 1% water charges on “W -A”				16.26	
	TOTAL				1955.51	X
	Add GST on “X-A” (multiplying factor 0.2127)				349.22	
	TOTAL				2304.73	Y
	Add 15% CP & OH on “Y-A”				298.66	
	TOTAL				2603.39	Z
	Add 1% cess on “Z -A”				22.90	
	Cost of 1 bulb				2626.29	
	Say				2626.30	

20.4.2 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 bulb.					
	MATERIAL					
	Bulb - 0.063 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.063	9504.75	598.80	A
7183	Bentonite	tonne	0.006	3050.00	18.30	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	39500.00	790.00	
0025	Hire and running charges of light crane.	day	0.01	3900.00	39.00	
0026	Hire and running charges of bentonite pump.	day	0.01	3350.00	33.50	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.02	897.00	17.94	
0114	Beldar	day	1.00	736.00	736.00	
	Total				2233.54	W
	Add 1% water charges on “W -A”				16.35	
	TOTAL				2249.89	X
	Add GST on “X-A” (multiplying factor 0.2127)				351.19	
	TOTAL				2601.08	Y
	Add 15% CP & OH on “Y-A”				300.34	
	TOTAL				2901.42	Z
	Add 1% cess on “Z -A”				23.03	
	Cost of 1 bulb				2924.45	
	Say				2924.45	

20.4.3 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 bulb.					
	MATERIAL					
	Bulb - 0.081 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.081	9504.75	769.88	A
7183	Bentonite	tonne	0.008	3050.00	24.40	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	39500.00	790.00	
0025	Hire and running charges of light crane.	day	0.01	3900.00	39.00	
0026	Hire and running charges of bentonite pump.	day	0.01	3350.00	33.50	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.02	897.00	17.94	
0114	Beldar	day	1.00	736.00	736.00	
	Total				2410.72	W
	Add 1% water charges on “W -A”				16.41	
	TOTAL				2427.13	X
	Add GST on “X-A” (multiplying factor 0.2127)				352.50	
	TOTAL				2779.63	Y
	Add 15% CP & OH on “Y-A”				301.46	
	TOTAL				3081.09	Z
	Add 1% cess on “Z -A”				23.11	
	Cost of 1 bulb				3104.20	
	Say				3104.20	

20.4.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 bulb.					
	MATERIAL					
	Bulb - 0.102 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.102	9504.75	969.48	A
7183	Bentonite	tonne	0.01	3050.00	30.50	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	39500.00	790.00	
0025	Hire and running charges of light crane.	day	0.01	3900.00	39.00	
0026	Hire and running charges of bentonite pump.	day	0.02	3350.00	67.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.02	897.00	17.94	
0114	Beldar	day	1.00	736.00	736.00	
	Total				2649.92	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1% water charges on "W -A"				16.80	
	TOTAL				2666.72	X
	Add GST on "X-A" (multiplying factor 0.2127)				361.00	
	TOTAL				3027.72	Y
	Add 15% CP & OH on "Y-A"				308.74	
	TOTAL				3336.46	Z
	Add 1% cess on "Z -A"				23.67	
	Cost of 1 bulb				3360.13	
	Say				3360.15	

20.5 Providing, driving (with vibrating pile driving hammer complete with power units & accessories) and installing driven Pre-cast reinforced cement concrete piles of specified diameter and length below the pile cap in M-25 cement concrete to carry safe working load not less than specified with a central through preformed hole with M.S. black pipe of dia, 40 mm for grouting with cement sand grouting of mix 1:2 (1cement : 2 coarse sand) under sufficient positive pressure to ensure complete filling including centring, shuttering, driving and removing the steel casing pipe and lifting casing etc. complete but excluding the cost of steel reinforcement. (Length of pile for payment shall be measured from top of the shoe to the bottom of pile cap).

20.5.1 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.40)²x20 = 2.51 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	2.51	9504.75	23856.92	A
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	2.51	16089.40	40384.39	A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-2.51	8583.40	-21544.33	A
	Cement mortar 1:2 for grout					
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5584.50	139.61	
9999	Sundries	L.S.	442.00	2.27	1003.34	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	33500.00	12730.00	
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7850.00	471.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				65091.57	W
	Add 1% water charges on "W -A"				223.95	
	TOTAL				65315.52	X
	Add GST on "X-A" (multiplying factor 0.2127)				4810.96	
	TOTAL				70126.48	Y
	Add 15% CP & OH on "Y-A"				4114.43	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				74240.91	Z
	Add 1% cess on “Z -A”				315.44	
	Cost of 20 m pile				74556.35	
	Cost for 1 m pile				3727.82	
	Say				3727.80	

20.5.2 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.45)²x20 = 3.18 cu					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.18	9504.75	30225.11	A
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	3.18	16089.40	51164.29	A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-3.18	8583.40	-27295.21	A
	Cement mortar 1:2 for grout					
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5584.50	139.61	
9999	Sundries	L.S.	442.00	2.27	1003.34	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	33500.00	12730.00	
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7850.00	471.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	1.08	897.00	968.76	
0114	Beldar	day	10.78	736.00	7934.08	
	Total				83075.98	W
	Add 1% water charges on “W -A”				289.82	
	TOTAL				83365.80	X
	Add GST on “X-A” (multiplying factor 0.2127)				6226.07	
	TOTAL				89591.87	Y
	Add 15% CP & OH on “Y-A”				5324.65	
	TOTAL				94916.52	Z
	Add 1% cess on “Z -A”				408.22	
	Cost of 20 m pile				95324.74	
	Cost for 1 m pile				4766.24	
	Say				4766.25	

20.5.3 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.50)²x20 = 3.925 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.925	9504.75	37306.14	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	3.925	16089.40	63150.90	A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-3.925	8583.40	-33689.85	A
	Cement mortar 1:2 for grout					
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5584.50	139.61	
9999	Sundries	L.S.	442.00	2.27	1003.34	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	33500.00	12730.00	
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7850.00	471.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				89161.78	W
	Add 1% water charges on “W -A”				223.95	
	TOTAL				89385.73	X
	Add GST on “X-A” (multiplying factor 0.2127)				4810.96	
	TOTAL				94196.69	Y
	Add 15% CP & OH on “Y-A”				4114.43	
	TOTAL				98311.12	Z
	Add 1% cess on “Z -A”				315.44	
	Cost of 20 m pile				98626.56	
	Cost for 1 m pile				4931.33	
	Say				4931.35	

20.5.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.55)²x20 = 4.75 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	4.75	9504.75	45147.56	A
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	4.75	16089.40	76424.65	A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-4.75	8583.40	-40771.15	A
	Cement mortar 1:2 for grout					
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5584.50	139.61	
9999	Sundries	L.S.	442.00	2.27	1003.34	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	33500.00	12730.00	
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7850.00	471.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				103195.65	W
	Add 1% water charges on “W -A”				223.95	
	TOTAL				103419.60	X
	Add GST on “X-A” (multiplying factor 0.2127)				4810.96	
	TOTAL				108230.56	Y
	Add 15% CP & OH on “Y-A”				4114.43	
	TOTAL				112344.99	Z
	Add 1% cess on “Z -A”				315.44	
	Cost of 20 m pile				112660.43	
	Cost for 1 m pile				5633.02	
	Say				5633.00	

20.5.5 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.75)²x20 = 10.88 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	10.88	9504.75	103411.68	A
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	10.88	16089.40	175052.67	A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-10.88	8583.40	-93387.39	A
	Cement mortar 1:2 for grout					
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5584.50	139.61	
9999	Sundries	L.S.	442.00	2.27	1003.34	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	33500.00	12730.00	
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7850.00	471.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				207471.55	W
	Add 1% water charges on “W -A”				223.95	
	TOTAL				207695.50	X
	Add GST on “X-A” (multiplying factor 0.2127)				4810.96	
	TOTAL				212506.46	Y
	Add 15% CP & OH on “Y-A”				4114.42	
	TOTAL				216620.88	Z
	Add 1% cess on “Z -A”				315.44	
	Cost of 20 m pile				216936.32	
	Cost for 1 m pile				10846.82	
	Say				10846.80	

20.5.6 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(1.00)²x20 = 15.70 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	15.70	9504.75	149224.58	A
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	15.70	16089.40	252603.58	A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-15.70	8583.40	-134759.38	A
	Cement mortar 1:2 for grout					
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5584.50	139.61	
9999	Sundries	L.S.	442.00	2.27	1003.34	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	52.00	4160.00	
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	45.00	1575.00	
	MACHINERY					
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	33500.00	12730.00	
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7850.00	471.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	897.00	107.64	
0114	Beldar	day	3.00	736.00	2208.00	
	Total				289463.37	W
	Add 1% water charges on “W -A”				223.95	
	TOTAL				289687.32	X
	Add GST on “X-A” (multiplying factor 0.2127)				4810.96	
	TOTAL				294498.28	Y
	Add 15% CP & OH on “Y-A”				4114.43	
	TOTAL				298612.71	Z
	Add 1% cess on “Z -A”				315.44	
	Cost of 20 m pile				298928.15	
	Cost for 1 m pile				14946.41	
	Say				14946.40	

20.6 Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.

20.6.1 Single pile upto 50 tonne Safe capacity

20.6.1.1 Initial test (Test Load 2.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7246	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification and upto 50MT capacity pile.	per test	1.00	38500.00	38500.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				38500.00	W
	Add 1 % Water charges on “W”				385.00	
	TOTAL				38885.00	X
	Add GST on “X” (multiplying factor 0.2127)				8270.84	
	TOTAL				47155.84	Y
	Add 15% CPOH on “Y”				7073.38	
	TOTAL				54229.22	Z
	Add Cess @ 1% on “Z”				542.29	
	Cost per test				54771.51	
	Say				54771.50	

20.6.1.2 Routine test (Test Load 1.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7249	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile upto 50 tonne capacity	per test	1.00	13800.00	13800.00	
	TOTAL				13800.00	W
	Add 1 % Water charges on “W”				138.00	
	TOTAL				13938.00	X
	Add GST on “X” (multiplying factor 0.2127)				2964.61	
	TOTAL				16902.61	Y
	Add 15% CPOH on “Y”				2535.39	
	TOTAL				19438.00	Z
	Add Cess @ 1% on “Z”				194.38	
	Cost per test				19632.38	
	Say				19632.40	

20.6.2 Single pile above 50 tonne and upto 100 tonne Safe capacity

20.6.2.1 Initial test (Test Load 2.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7247	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & above 50MT and upto 100MT.	per test	1.00	43000.00	43000.00	
	TOTAL				43000.00	W
	Add 1 % Water charges on “W”				430.00	
	TOTAL				43430.00	X
	Add GST on “X” (multiplying factor 0.2127)				9237.56	
	TOTAL				52667.56	Y
	Add 15% CPOH on “Y”				7900.13	
	TOTAL				60567.69	Z
	Add Cess @ 1% on “Z”				605.68	
	Cost per test				61173.37	
	Say				61173.35	

20.6.2.2 Routine test (Test Load 1.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7250	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile above 50 tonne capacity pile and upto 100 tonne capacity pile	per test	1.00	22800.00	22800.00	
	TOTAL				22800.00	W
	Add 1 % Water charges on "W"				228.00	
	TOTAL				23028.00	X
	Add GST on "X" (multiplying factor 0.2127)				4898.06	
	TOTAL				27926.06	Y
	Add 15% CPOH on "Y"				4188.91	
	TOTAL				32114.97	Z
	Add Cess @ 1% on "Z"				321.15	
	Cost per test				32436.12	
	Say				32436.10	

20.6.3 Group of two or more piles upto 50 tonne Safe capacity

20.6.3.1 Initial test (Test Load 2.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7248	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & group of two or more upto 50MT.	per test	1.00	49500.00	49500.00	
	TOTAL				49500.00	W
	Add 1 % Water charges on "W"				495.00	
	TOTAL				49995.00	X
	Add GST on "X" (multiplying factor 0.2127)				10633.94	
	TOTAL				60628.94	Y
	Add 15% CPOH on "Y"				9094.34	
	TOTAL				69723.28	Z
	Add Cess @ 1% on "Z"				697.23	
	Cost per test				70420.51	
	Say				70420.50	

20.6.3.2 Routine test (Test Load 1.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7251	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Group of two piles upto 50 tonne capacity each	per test	1.00	28500.00	28500.00	
	TOTAL				28500.00	W
	Add 1 % Water charges on "W"				285.00	
	TOTAL				28785.00	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				6122.57	
	TOTAL				34907.57	Y
	Add 15% CPOH on “Y”				5236.14	
	TOTAL				40143.71	Z
	Add Cess @ 1% on “Z”				401.44	
	Cost per test				40545.15	
	Say				40545.15	

20.7 Cyclic vertical load testing of pile in accordance with IS Code of practice IS:2911 (part IV) by Kentledge method including preparation of pile head etc for.

20.7.1 Single pile

20.7.1.1 Upto 50 tonne Safe capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7249	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile upto 50 tonne capacity	per test	1.00	13800.00	13800.00	
	TOTAL				13800.00	W
	Add 1 % Water charges on “W”				138.00	
	TOTAL				13938.00	X
	Add GST on “X” (multiplying factor 0.2127)				2964.61	
	TOTAL				16902.61	Y
	Add 15% CPOH on “Y”				2535.39	
	TOTAL				19438.00	Z
	Add Cess @ 1% on “Z”				194.38	
	Cost per test				19632.38	
	Say				19632.40	

20.7.1.2 Above 50 tonne and upto 100 tonne Safe capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7250	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile above 50 tonne capacity pile and upto 100 tonne capacity pile	per test	1.00	22800.00	22800.00	
	TOTAL				22800.00	W
	Add 1 % Water charges on “W”				228.00	
	TOTAL				23028.00	X
	Add GST on “X” (multiplying factor 0.2127)				4898.06	
	TOTAL				27926.06	Y
	Add 15% CPOH on “Y”				4188.91	
	TOTAL				32114.97	Z
	Add Cess @ 1% on “Z”				321.15	
	Cost per test				32436.12	
	Say				32436.10	

20.7.2 Group of two or more piles

20.7.2.1 Upto 400 tonne Safe capacity of group

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7251	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Group of two piles upto 50 tonne capacity each	per test	1.00	28500.00	28500.00	
	TOTAL				28500.00	W
	Add 1 % Water charges on “W”				285.00	
	TOTAL				28785.00	X
	Add GST on “X” (multiplying factor 0.2127)				6122.57	
	TOTAL				34907.57	Y
	Add 15% CPOH on “Y”				5236.14	
	TOTAL				40143.71	Z
	Add Cess @ 1% on “Z”				401.44	
	Cost per test				40545.15	
	Say				40545.15	

20.8 Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile :

20.8.1 Upto 50 tonne capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7252	Lateral load testing of single pile in accordance with IS : 2911 part -IV for determining safe allowable lateral load on pile. Upto 50 tonne capacity	per test	1.00	13800.00	13800.00	
	TOTAL				13800.00	W
	Add 1 % Water charges on “W”				138.00	
	TOTAL				13938.00	X
	Add GST on “X” (multiplying factor 0.2127)				2964.61	
	TOTAL				16902.61	Y
	Add 15% CPOH on “Y”				2535.39	
	TOTAL				19438.00	Z
	Add Cess @ 1% on “Z”				194.38	
	Cost per test				19632.38	
	Say				19632.40	

20.8.2 Above 50 tonne and upto 100 tonne capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 test					
7253	Lateral load testing of single pile in accordance with IS : 2911 part -IV for determining safe allowable lateral load on pile. Above 50 tonne capacity	per test	1.00	23100.00	23100.00	
	TOTAL				23100.00	W
	Add 1 % Water charges on “W”				231.00	
	TOTAL				23331.00	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				4962.50	
	TOTAL				28293.50	Y
	Add 15% CPOH on “Y”				4244.03	
	TOTAL				32537.53	Z
	Add Cess @ 1% on “Z”				325.38	
	Cost per test				32862.91	
	Say				32862.90	

20.9 Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for one pit test (Ten pits in one day)					
	MATERIAL					
0081	Pile Integrity testing equipment	day	0.10	3350.00	335.00	
	LABOUR					
0160	Technician	day	0.10	973.00	97.30	
0161	Helper (Technician)	day	0.10	736.00	73.60	
	Miscllaneous					
9999	Reporting charges	L.S.	100.67	2.27	228.52	
9977	Transportation and consumables etc.	L.S.	33.56	2.27	76.18	
	TOTAL				810.60	W
	Add 1 % Water charges on “W”				8.11	
	TOTAL				818.71	X
	Add GST on “X” (multiplying factor 0.2127)				174.14	
	TOTAL				992.85	Y
	Add 15% CPOH on “Y”				148.93	
	TOTAL				1141.78	Z
	Add Cess @ 1% on “Z”				11.42	
	Cost per test				1153.20	
	Say				1153.20	

SUB HEAD : 21.0

ALUMINIUM WORK

21.1 Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :

21.1.1 For fixed portion

21.1.1.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg					
7306	Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	198.00	8319.96	
0589	Chromium plated Brass screws 20 mm (vi)	100 Nos	0.72	152.00	109.44	
7389	Anodising 15 microns on aluminium sections (vii)	kilogram	42.02	42.00	1764.84	
9977	Carriage of material LABOUR For fabrication of frame	L.S.	52.00	2.27	118.04	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
0100	Bandhani	day	0.05	816.00	40.80	
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fasteners and sundries	L.S.	100.00	2.27	227.00	
	TOTAL				13926.08	W
	Add 1 % Water charges on “W”				139.26	
	TOTAL				14065.34	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				2991.70	
	TOTAL				17057.04	Y
	Add 15% CPOH on "Y"				2558.56	
	TOTAL				19615.60	Z
	Add Cess @ 1% on "Z"				196.16	
	Cost for 40.02 kg				19811.76	
	Cost for 1 kg				495.05	
	Say				495.05	

21.1.1.2 Powder coated aluminium (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg					
7306	Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	198.00	8319.96	
0589	Chromium plated Brass screws 20 mm (vi) Epoxy	100 Nos	0.72	152.00	109.44	
7392	Powder coating 50 microns on aluminium sections (vii)	kilogram	42.02	66.00	2773.32	
9977	Carriage of material LABOUR For fabrication of frame	L.S.	52.00	2.27	118.04	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
0100	Bandhani	day	0.05	816.00	40.80	
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fasteners and sundries	L.S.	100.00	2.27	227.00	
	TOTAL				14934.56	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on "W"				149.35	
	TOTAL				15083.91	X
	Add GST on "X" (multiplying factor 0.2127)				3208.35	
	TOTAL				18292.26	Y
	Add 15% CPOH on "Y"				2743.84	
	TOTAL				21036.10	Z
	Add Cess @ 1% on "Z"				210.36	
	Cost for 40.02 kg				21246.46	
	Cost for 1 kg				530.90	
	Say				530.90	

21.1.1.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg					
7306	Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	198.00	8319.96	
0589	Chromium plated Brass screws 20 mm (vi)	100 Nos	0.72	152.00	109.44	
7393	Polyester powder coating 50 microns on aluminium sections (vii)	kilogram	42.02	72.00	3025.44	
9977	Carriage of material LABOUR For fabrication of frame	L.S.	52.00	2.27	118.04	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
0100	Bandhani	day	0.05	816.00	40.80	
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fasteners and sundries	L.S.	100.00	2.27	227.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				15186.68	W
	Add 1 % Water charges on “W”				151.87	
	TOTAL				15338.55	X
	Add GST on “X” (multiplying factor 0.2127)				3262.51	
	TOTAL				18601.06	Y
	Add 15% CPOH on “Y”				2790.16	
	TOTAL				21391.22	Z
	Add Cess @ 1% on “Z”				213.91	
	Cost for 40.02 kg				21605.13	
	Cost for 1 kg				539.86	
	Say				539.85	

21.1.2 For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)

21.1.2.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20.62 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg					
7306	Aluminium T or L sections (viii)	kilogram	21.65	198.00	4286.70	
0689	Anodised Aluminium butt hinges 100x75x4 mm (ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For Hinges 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos	10 Nos	0.40	410.00	164.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0589	Chromium plated Brass screws 20 mm (x)	100 Nos	0.92	152.00	139.84	
7389	Anodising 15 microns on aluminium sections (xi)	kilogram	21.65	42.00	909.30	
9977	Carriage of material (xii) Neoprene/ EPDM gasket in groove of meeting style	L.S.	31.20	2.27	70.82	
7390	Neoprene/EPDM rubber gasket	metre	2.35	16.00	37.60	
	LABOUR					
	For fabrication					
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	816.00	816.00	
0114	Beldar	day	0.50	736.00	368.00	
0100	Bandhani	day	0.40	816.00	326.40	
	For fixing the shutter including hinges :					
0111	Carpenter 1st class	day	0.20	897.00	179.40	
0114	Beldar	day	0.50	736.00	368.00	
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.27	113.50	
	TOTAL				8676.56	W
	Add 1 % Water charges on “W”				86.77	
	TOTAL				8763.33	X
	Add GST on “X” (multiplying factor 0.2127)				1863.96	
	TOTAL				10627.29	Y
	Add 15% CPOH on “Y”				1594.09	
	TOTAL				12221.38	Z
	Add Cess @ 1% on “Z”				122.21	
	Cost for 20.62 kg				12343.59	
	Cost for 1 kg				598.62	
	Say				598.60	

21.1.2.2 Powder coated aluminium (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20.62 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x4.8 mm 35 mm long					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg					
7306	Aluminium T or L sections (viii)	kilogram	21.65	198.00	4286.70	
0689	Anodised Aluminium butt hinges 100x75x4 mm (ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For Hinges 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos	10 Nos	0.40	410.00	164.00	
0589	Chromium plated Brass screws 20 mm (x) Epoxy	100 Nos	0.92	152.00	139.84	
7392	Powder coating 50 microns on aluminium sections (xi)	kilogram	21.65	66.00	1428.90	
9977	Carriage of material (xii) Neoprene/ EPDM rubber gasket in groove of meeting style	L.S.	31.20	2.27	70.82	
7390	Neoprene/EPDM rubber gasket LABOUR	metre	2.35	16.00	37.60	
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	816.00	816.00	
0114	Beldar	day	0.50	736.00	368.00	
0100	Bandhani For fixing the shutter including hinges :	day	0.40	816.00	326.40	
0111	Carpenter 1st class	day	0.20	897.00	179.40	
0114	Beldar	day	0.50	736.00	368.00	
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.27	113.50	
	TOTAL				9196.16	W
	Add 1 % Water charges on “W”				91.96	
	TOTAL				9288.12	X
	Add GST on “X” (multiplying factor 0.2127)				1975.58	
	TOTAL				11263.70	Y
	Add 15% CPOH on “Y”				1689.56	
	TOTAL				12953.26	Z
	Add Cess @ 1% on “Z”				129.53	
	Cost for 20.62 kg				13082.79	
	Cost for 1 kg				634.47	
	Say				634.45	

21.1.2.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20.62 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526)					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg					
7306	Aluminium T or L sections (viii)	kilogram	21.65	198.00	4286.70	
0689	Anodised Aluminium butt hinges 100x75x4 mm (ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For Hinges 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos	10 Nos	0.40	410.00	164.00	
0589	Chromium plated Brass screws 20 mm (x)	100 Nos	0.92	152.00	139.84	
7393	Polyester powder coating 50 microns on aluminium sections (xi)	kilogram	21.65	72.00	1558.80	
9977	Carriage of material (xii) Neoprene/ EPDM rubber gasket in groove of meeting style	L.S.	31.20	2.27	70.82	
7390	Neoprene/EPDM rubber gasket LABOUR For fabrication	metre	2.35	16.00	37.60	
0116	Fitter (grade 1)	day	1.00	897.00	897.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	816.00	816.00	
0114	Beldar	day	0.50	736.00	368.00	
0100	Bandhani For fixing the shutter including hinges :	day	0.40	816.00	326.40	
0111	Carpenter 1st class	day	0.20	897.00	179.40	
114	Beldar	day	0.50	736.00	368.00	
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.27	113.50	
	TOTAL				9326.06	W
	Add 1 % Water charges on “W”				93.26	
	TOTAL				9419.32	X
	Add GST on “X” (multiplying factor 0.2127)				2003.49	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				11422.81	Y
	Add 15% CPOH on "Y"				1713.42	
	TOTAL				13136.23	Z
	Add Cess @ 1% on "Z"				131.36	
	Cost for 20.62 kg				13267.59	
	Cost for 1 kg				643.43	
	Say				643.45	

21.2 Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.

21.2.1 Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 7 sqm					
	MATERIAL					
	12 mm thick particle board = 7.00 sqm					
	Add 5% wastage = 0.35 sqm					
	Total = 7.35 sqm					
7477	Prelaminated particle board with one side decorative and other side balancing lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	7.35	550.00	4042.50	
9977	Carriage of particle board	L.S.	13.65	2.27	30.99	
9999	Sundries & screws etc.	L.S.	27.30	2.27	61.97	
	LABOUR					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				5605.86	W
	Add 1 % Water charges on "W"				56.06	
	TOTAL				5661.92	X
	Add GST on "X" (multiplying factor 0.2127)				1204.29	
	TOTAL				6866.21	Y
	Add 15% CPOH on "Y"				1029.93	
	TOTAL				7896.14	Z
	Add Cess @ 1% on "Z"				78.96	
	Cost for 7 sqm				7975.10	
	Cost for 1 sqm				1139.30	
	Say				1139.30	

21.2.2 Pre-laminated particle board with decorative lamination on both sides

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 7 sqm					
	MATERIAL					
	12 mm thick particle board = 7.00 sqm					
	Add 5% wastage = 0.35 sqm					
	Total = 7.35 sqm					
7480	Prelaminated particle board with both sides decorative lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	7.35	534.00	3924.90	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage of particle board	L.S.	13.65	2.27	30.99	
9999	Sundries & screws etc.	L.S.	27.30	2.27	61.97	
	LABOUR					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				5488.26	W
	Add 1 % Water charges on “W”				54.88	
	TOTAL				5543.14	X
	Add GST on “X” (multiplying factor 0.2127)				1179.03	
	TOTAL				6722.17	Y
	Add 15% CPOH on “Y”				1008.33	
	TOTAL				7730.50	Z
	Add Cess @ 1% on “Z”				77.31	
	Cost for 7 sqm				7807.81	
	Cost for 1 sqm				1115.40	
	Say				1115.40	

21.3 Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):

21.3.1 With float glass panes of 4.0 mm thickness (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 sqm					
	MATERIAL					
	Float Glass panes 4.0 mm thick = 1.00 sqm					
	Add for wastage & breakage @ 10% = 0.10 sqm					
	Total =1.10 sqm					
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.10	321.00	353.10	
9977	Carriage of glass	L.S.	2.42	2.27	5.49	
7390	Neoprene/EPDM rubber gasket	metre	6.00	16.00	96.00	
	LABOUR					
0112	Carpenter 2nd class	day	0.23	816.00	187.68	
0114	Beldar	day	0.23	736.00	169.28	
9988	Sundries and carriage of gasket	L.S.	6.89	2.27	15.64	
	TOTAL				827.19	W
	Add 1 % Water charges on “W”				8.27	
	TOTAL				835.46	X
	Add GST on “X” (multiplying factor 0.2127)				177.70	
	TOTAL				1013.16	Y
	Add 15% CPOH on “Y”				151.97	
	TOTAL				1165.13	Z
	Add Cess @ 1% on “Z”				11.65	
	Cost for 1 sqm				1176.78	
	Say				1176.80	

21.3.2 With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 sqm					
	MATERIAL					
	Glass panes 5.50 mm thick = 1.00 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add for wastage & breakage @ 10% = 0.10 sqm					
	Total =1.00 sqm					
2407	Float glass sheet of nominal thickness 5 mm (weight not less than 12.50 kg/sqm)	sqm	1.10	529.00	581.90	
9977	Carriage of glass	L.S.	3.33	2.27	7.56	
7390	Neoprene/EPDM rubber gasket	metre	6.00	16.00	96.00	
	LABOUR					
0112	Carpenter 2nd class	day	0.23	816.00	187.68	
0114	Beldar	day	0.23	736.00	169.28	
9988	Sundries and carriage of gasket	L.S.	6.89	2.27	15.64	
	TOTAL				1058.06	W
	Add 1 % Water charges on “W”				10.58	
	TOTAL				1068.64	X
	Add GST on “X” (multiplying factor 0.2127)				227.30	
	TOTAL				1295.94	Y
	Add 15% CPOH on “Y”				194.39	
	TOTAL				1490.33	Z
	Add Cess @ 1% on “Z”				14.90	
	Cost for 1 sqm				1505.23	
	Say				1505.25	

21.3.3 With float glass panes of 8 mm thickness (weight not less than 20 kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 sqm					
	MATERIAL					
	Float Glass panes 8.0 mm thick = 1.00 sqm					
	Add for wastage & breakage @ 10% = 0.10 sqm					
	Total =1.10 sqm					
2408	Float glass sheet of nominal thickness 8 mm.(-weight not less than 20.00 kg/sqm).	sqm	1.10	641.00	705.10	
9977	Carriage of glass	L.S.	4.84	2.27	10.99	
7390	Neoprene/EPDM rubber gasket	metre	6.00	16.00	96.00	
	LABOUR					
0112	Carpenter 2nd class	day	0.23	816.00	187.68	
0114	Beldar	day	0.23	736.00	169.28	
9988	Sundries and carriage of gasket	L.S.	6.89	2.27	15.64	
	TOTAL				1184.69	W
	Add 1 % Water charges on “W”				11.85	
	TOTAL				1196.54	X
	Add GST on “X” (multiplying factor 0.2127)				254.50	
	TOTAL				1451.04	Y
	Add 15% CPOH on “Y”				217.66	
	TOTAL				1668.70	Z
	Add Cess @ 1% on “Z”				16.69	
	Cost for 1 sqm				1685.39	
	Say				1685.40	

21.4 Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.

21.4.1 With stainless steel cover plate minimum 1.25 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one number					
	MATERIAL					
7394	Double action hydraulic floor spring with stain-less steel cover plate	each	1.00	1615.00	1615.00	
9977	CARRIAGE	L.S.	13.00	2.27	29.51	
9999	Sundries and screws	L.S.	26.00	2.27	59.02	
	Cement concrete 1:2:4					
4.1.3	Rate as per item no. 4.1.3 of SH : concrete work	cum	0.002	7878.50	15.76	A
	LABOUR					
0123	Mason 1st class	day	0.08	897.00	71.76	
0124	Mason 2nd class	day	0.08	816.00	65.28	
0112	Carpenter 2nd class	day	0.01	816.00	8.16	
0114	Beldar	day	0.17	736.00	125.12	
	TOTAL				1989.61	W
	Add 1 % Water charges on “W-A”				19.74	
	TOTAL				2009.35	X
	Add GST on “X-A” (multiplying factor 0.2127)				424.04	
	TOTAL				2433.39	Y
	Add 15% CPOH on “Y-A”				362.64	
	TOTAL				2796.03	Z
	Add Cess @ 1% on “Z-A”				27.80	
	Cost for each				2823.83	
	Say				2823.85	

21.4.2 With brass cover plate minimum 1.25 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one number					
	MATERIAL					
7396	Double action hydraulic floor spring with brass cover plate	each	1.00	1715.00	1715.00	
9977	CARRIAGE	L.S.	13.00	2.27	29.51	
9999	Sundries and screws	L.S.	26.00	2.27	59.02	
	Cement concrete 1:2:4					
4.1.3	Rate as per item no. 4.1.3 of SH : concrete work	cum	0.002	7878.50	15.76	A
	LABOUR					
	For cutting hole and making it good					
0123	Mason 1st class	day	0.08	897.00	71.76	
0124	Mason 2nd class	day	0.08	816.00	65.28	
0112	Carpenter 2nd class	day	0.01	816.00	8.16	
0114	Beldar	day	0.17	736.00	125.12	
	TOTAL				2089.61	W
	Add 1 % Water charges on “W-A”				20.74	
	TOTAL				2110.35	X
	Add GST on “X-A” (multiplying factor 0.2127)				445.52	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2555.87	Y
	Add 15% CPOH on "Y-A"				381.02	
	TOTAL				2936.89	Z
	Add Cess @ 1% on "Z-A"				29.21	
	Cost for each				2966.10	
	Say				2966.10	

21.5 Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6.35 kg (2.40x2.40 = 5.76 sqm) MATERIAL (i) Aluminium main runner - assuming Tee of size 35x23.5x1.5 mm @ 600 mm centre to centre 3x2.40 m = 7.20 m Extra for light fittings 2x1.20 m = 2.40 m Total= 9.60 m @ 0.247 kg/m = 2.370 kg Aluminium cross runner - assuming Tee of size 35x23.5x1.5 mm @ 600 mm centre to centre 3x4x0.60 m = 7.20 m (-) 2x0.30 = (-) 0.60 m Total=6.60 m @ 0.247 kg/m = 1.630 kg Perimeter angle aluminium - assuming size 25.4x25.4x1.63 mm @ 600 mm centre to centre 4x2.40 m = 9.60 m @ 0.213 kg/m = 2.045 kg (ii) CLEATS Aluminium angle- assuming size 25.4x25.4x1.63 mm Extra for light fittings =3x2x2 = 12.00 Corner = 4.00 For joining runners = 42.00 Total = 58.00x0.025 = 1.45 m @ 0.213 kg/m = 0.309 kg Sub total = 2.370 + 1.630 + 2.045 + 0.309 =6.354 kg Add 5% wastage = 0.318 kg Total = 6.672 kg					
7306	Aluminium T or L sections (iii) C.P. brass/ stainless steel screws 20 mm for angle cleats=2x58 =116 Nos	kilogram	6.672	198.00	1321.06	
0589	Chromium plated Brass screws 20 mm (iv) Rawl plug for fixing perimeter angles	100 Nos	1.160	152.00	176.32	
7048	Rawl plug 50 mm (designation 10 no.) Epoxy	each	24.000	24.00	576.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7392	Powder coating 50 microns on aluminium sections (vi)	kilogram	6.672	66.00	440.35	
9977	Carriage of material (vii)	L.S.	13.000	2.27	29.51	
9999	C.P. brass screws for fixing frame with suspenders	L.S.	13.000	2.27	29.51	
	LABOUR					
	For fabrication and erection					
0111	Carpenter 1st class	day	0.640	897.00	574.08	
0114	Beldar	day	0.640	736.00	471.04	
9999	Scaffolding and sundries	L.S.	13.000	2.27	29.51	
	TOTAL				3647.38	W
	Add 1 % Water charges on “W”				36.47	
	TOTAL				3683.85	X
	Add GST on “X” (multiplying factor 0.2127)				783.55	
	TOTAL				4467.40	Y
	Add 15% CPOH on “Y”				670.11	
	TOTAL				5137.51	Z
	Add Cess @ 1% on “Z”				51.38	
	Cost for 6.35 kg				5188.89	
	Cost for 1 kg				817.15	
	Say				817.15	

21.6 Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 23 nos (hangers in 2.40 mx 2.40 m = 5.76 sqm)one number					
	MATERIAL					
	6 mm dia G.I. adjustable hangers including clips (upto 1.20 metre length).					
	For light fitting 2x4 = 8.00					
	For runners = 15.00					
	Total = 23.00					
7395	6 mm dia. G.I. adjustable hangers including clips (upto 1.2 m length)	each	23.00	21.00	483.00	
	Ceiling cleats					
	G.I. flat 40X3 mm 60mm long					
	23x0.06 = 1.38 m @ 0.95kg/m = 1.31kg					
	Add 5% wastage = 0.07 kg					
	Total = 1.38 kg say 0.014 q					
0992	Galvanised steel plain sheets	quintal	0.014	6800.00	95.20	
7388	Dash hold fastener 12.5 mm dia, 40 mm long with 6 mm dia bolt	each	23.00	10.00	230.00	
9977	Carriage of materials	L.S.	5.20	2.27	11.80	
	LABOUR					
0111	Carpenter 1st class	day	0.35	897.00	313.95	
0114	Beldar	day	0.27	736.00	198.72	
	TOTAL				1332.67	W
	Add 1 % Water charges on “W”				13.33	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				1346.00	X
	Add GST on “X” (multiplying factor 0.2127)				286.29	
	TOTAL				1632.29	Y
	Add 15% CPOH on “Y”				244.84	
	TOTAL				1877.13	Z
	Add Cess @ 1% on “Z”				18.77	
	Cost for 23 hangers				1895.90	
	Cost for one hanger				82.43	
	Say				82.45	

21.7 Providing and fixing machine moulded aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving dash fastener, over expansion joints on vertical surfaces/ceiling floors, the fixing on plate in one row on one side of joint only shall be done with stainless steel dash fasteners of 8 mm dia and 75 mm long bolt including providing aluminium washers 2 mm thick & 15 mm dia , at a staggered pitch of 200mm centre to centre including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete as per direction of Engineer-in-charge.

21.7.1 Anodised aluminium sheet 2.5mm thick (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 7.00 kg					
	MATERIAL					
	Anodised aluminium sheet 2.5 mm thick, 170 mm wide					
	5.88 m x0.17 m = 1.00 sqm @ 7.00 kg/ sqm = 7.00 kg					
	Add 5% wastage = 0.35 kg					
	Total = 7.35 kg					
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	7.35	243.00	1786.05	
7389	Anodising 15 microns on aluminium sections	kilogram	7.35	42.00	308.70	
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos	0.30	29.00	8.70	
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	0.30	11.00	3.30	
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	30.00	19.00	570.00	
9977	Carriage of materials	L.S.	6.50	2.27	14.76	
	LABOUR					
0112	Carpenter 2nd class	day	0.392	816.00	319.87	
0114	Beldar	day	0.392	736.00	288.51	
9999	Sundries including machine work	L.S.	21.45	2.27	48.69	
	TOTAL				3348.58	W
	Add 1 % Water charges on “W”				33.49	
	TOTAL				3382.07	X
	Add GST on “X” (multiplying factor 0.2127)				719.37	
	TOTAL				4101.44	Y
	Add 15% CPOH on “Y”				615.22	
	TOTAL				4716.66	Z
	Add Cess @ 1% on “Z”				47.17	
	Cost for 7.00 kg				4763.83	
	Cost for 1 kg				680.55	
	Say				680.55	

21.7.2 Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 7.00 kg MATERIAL Anodised aluminium sheet 2.5 mm thick, 170 mm wide 5.88 m x0.17 m = 1.00 sqm @ 7.00 kg/sqm = 7.00 kg Add 5% wastage = 0.35 kg Total = 7.35 kg					
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	7.35	243.00	1786.05	
7392	Powder coating 50 microns on aluminium sections	kilogram	7.35	66.00	485.10	
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos	0.30	29.00	8.70	
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	0.30	11.00	3.30	
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	30.00	19.00	570.00	
9977	Carriage of materials	L.S.	6.50	2.27	14.76	
	LABOUR					
0112	Carpenter 2nd class	day	0.392	816.00	319.87	
0114	Beldar	day	0.392	736.00	288.51	
9999	Sundries including machine work	L.S.	21.45	2.27	48.69	
	TOTAL				3524.98	W
	Add 1 % Water charges on “W”				35.25	
	TOTAL				3560.23	X
	Add GST on “X” (multiplying factor 0.2127)				757.26	
	TOTAL				4317.49	Y
	Add 15% CPOH on “Y”				647.62	
	TOTAL				4965.11	Z
	Add Cess @ 1% on “Z”				49.65	
	Cost for 7.00 kg				5014.76	
	Cost for 1 kg				716.39	
	Say				716.40	

21.8 Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.

21.8.1 Upto 5mm depth and 5 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 metre MATERIAL					
8646	Silicon sealant (i/c 5% wastage)	cartridge	0.087	125.00	10.88	
8654	Masking tape	metre	2.00	2.00	4.00	
9999	Sundries & profile	L.S.	2.60	2.27	5.90	
9999	LABOUR	L.S.	20.80	2.27	47.22	
	TOTAL				68.00	W
	Add 1 % Water charges on “W”				0.68	
	TOTAL				68.68	X
	Add GST on “X” (multiplying factor 0.2127)				14.61	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				83.29	Y
	Add 15% CPOH on "Y"				12.49	
	TOTAL				95.78	Z
	Add Cess @ 1% on "Z"				0.96	
	Cost for 1 metre				96.74	
	Say				96.75	

21.9 Extra for applying additional anodic coating AC 25 instead of AC 15 to aluminium extruded sections.

21.9.1 For fixed portion

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 41.09 kg					
	Difference in cost of					
7391	Anodising 25 microns on aluminium sections	kilogram	41.09	51.00	2095.59	
7389	Anodising 15 microns on aluminium sections	kilogram	-41.09	42.00	-1725.78	
	TOTAL				369.81	W
	Add 1 % Water charges on "W"				3.70	
	TOTAL				373.51	X
	Add GST on "X" (multiplying factor 0.2127)				79.45	
	TOTAL				452.96	Y
	Add 15% CPOH on "Y"				67.94	
	TOTAL				520.90	Z
	Add Cess @ 1% on "Z"				5.21	
	Cost for 41.09 kg				526.11	
	Cost for 1 kg				12.80	
	Say				12.80	

21.9.2 For shutters of doors, windows & ventilators

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 21.65 kg					
	Difference in cost of					
7391	Anodising 25 microns on aluminium sections	kilogram	21.65	51.00	1104.15	
7389	Anodising 15 microns on aluminium sections	kilogram	-21.65	42.00	-909.30	
	TOTAL				194.85	W
	Add 1 % Water charges on "W"				1.95	
	TOTAL				196.80	X
	Add GST on "X" (multiplying factor 0.2127)				41.86	
	TOTAL				238.66	Y
	Add 15% CPOH on "Y"				35.80	
	TOTAL				274.46	Z
	Add Cess @ 1% on "Z"				2.74	
	Cost for 21.65kg				277.20	
	Cost for 1 kg				12.80	
	Say				12.80	

21.10 Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 sqm					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Hermetically sealled double glazed unit made with 6mm thick clear float glass both side having 12 mm air gap = 1.00 sqm.					
	Add for wastage & breakage @ 10% = 0.10 sqm					
	Total = 1.10 sqm					
8648	Hermetically sealed double glazed unit made with 6 mm thick clear float glass both side having 12 mm air gap	sqm	1.10	2600.00	2860.00	
9977	Carriage of glass	L.S.	6.66	2.27	15.12	
7390	Neoprene/EPDM rubber gasket	metre	6.00	16.00	96.00	
	LABOUR					
	Glazier /					
0112	Carpenter 2nd class	day	0.23	816.00	187.68	
0114	Beldar	day	0.46	736.00	338.56	
9988	Sundries and carriage of gasket	L.S.	6.89	2.27	15.64	
	TOTAL				3513.00	W
	Add 1 % Water charges on “W”				35.13	
	TOTAL				3548.13	X
	Add GST on “X” (multiplying factor 0.2127)				754.69	
	TOTAL				4302.82	Y
	Add 15% CPOH on “Y”				645.42	
	TOTAL				4948.24	Z
	Add Cess @ 1% on “Z”				49.48	
	Cost for 1 sqm				4997.72	
	Say				4997.70	

21.11 Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.

21.11.1 205 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
8649	Stainless steel (SS 304 grade) adjustable friction window stay 205 x 19 mm	each	10.00	218.00	2180.00	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	42.00	16.80	
9977	CARRIAGE	L.S.	2.73	2.27	6.20	
	LABOUR					
0112	Carpenter 2nd class	day	0.14	816.00	114.24	
0114	Beldar	day	0.14	736.00	103.04	
	TOTAL				2420.28	W
	Add 1 % Water charges on “W”				24.20	
	TOTAL				2444.48	X
	Add GST on “X” (multiplying factor 0.2127)				519.94	
	TOTAL				2964.42	Y
	Add 15% CPOH on “Y”				444.66	
	TOTAL				3409.08	Z
	Add Cess @ 1% on “Z”				34.09	
	Cost for 10 nos				3443.17	
	Cost for each				344.32	
	Say				344.30	

21.11.2 255 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
8650	Stainless steel (SS 304 grade) adjustable 255 x 19mm	each	10.00	248.00	2480.00	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	42.00	16.80	
9977	CARRIAGE	L.S.	2.73	2.27	6.20	
	LABOUR					
0112	Carpenter 2nd class	day	0.14	816.00	114.24	
0114	Beldar	day	0.14	736.00	103.04	
	TOTAL				2720.28	W
	Add 1 % Water charges on “W”				27.20	
	TOTAL				2747.48	X
	Add GST on “X” (multiplying factor 0.2127)				584.39	
	TOTAL				3331.87	Y
	Add 15% CPOH on “Y”				499.78	
	TOTAL				3831.65	Z
	Add Cess @ 1% on “Z”				38.32	
	Cost for 10 nos				3869.97	
	Cost for each				387.00	
	Say				387.00	

21.11.3 355 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
8651	Stainless steel (SS 304 grade) adjustable friction window stay 355 x 19 mm	each	10.00	205.00	2050.00	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	42.00	16.80	
9977	CARRIAGE	L.S.	2.73	2.27	6.20	
	LABOUR					
0112	Carpenter 2nd class	day	0.14	816.00	114.24	
0114	Beldar	day	0.14	736.00	103.04	
	TOTAL				2290.28	W
	Add 1 % Water charges on “W”				22.90	
	TOTAL				2313.18	X
	Add GST on “X” (multiplying factor 0.2127)				492.01	
	TOTAL				2805.19	Y
	Add 15% CPOH on “Y”				420.78	
	TOTAL				3225.97	Z
	Add Cess @ 1% on “Z”				32.26	
	Cost for 10 nos				3258.23	
	Cost for each				325.82	
	Say				325.80	

21.11.4 510 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
8652	Stainless steel (SS 304 grade) adjustable friction window stay 510 x 19 mm	each	10.00	540.00	5400.00	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	42.00	16.80	
9977	CARRIAGE	L.S.	2.73	2.27	6.20	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0112	Carpenter 2nd class	day	0.14	816.00	114.24	
0114	Beldar	day	0.14	736.00	103.04	
	TOTAL				5640.28	W
	Add 1 % Water charges on “W”				56.40	
	TOTAL				5696.68	X
	Add GST on “X” (multiplying factor 0.2127)				1211.68	
	TOTAL				6908.36	Y
	Add 15% CPOH on “Y”				1036.25	
	TOTAL				7944.61	Z
	Add Cess @ 1% on “Z”				79.45	
	Cost for 10 nos				8024.06	
	Cost for each				802.41	
	Say				802.40	

21.11.5 710 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
8653	Stainless steel (SS 304 grade) adjustable friction window stay 710 x 19 mm	each	10.00	1015.00	10150.00	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	42.00	16.80	
9977	CARRIAGE	L.S.	2.73	2.27	6.20	
	LABOUR					
0112	Carpenter 2nd class	day	0.14	816.00	114.24	
0114	Beldar	day	0.14	736.00	103.04	
	TOTAL				10390.28	W
	Add 1 % Water charges on “W”				103.90	
	TOTAL				10494.18	X
	Add GST on “X” (multiplying factor 0.2127)				2232.11	
	TOTAL				12726.29	Y
	Add 15% CPOH on “Y”				1908.94	
	TOTAL				14635.23	Z
	Add Cess @ 1% on “Z”				146.35	
	Cost for 10 nos				14781.58	
	Cost for each				1478.16	
	Say				1478.15	

21.12 Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.

21.12.1 Anodized (AC 15) aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos handle bar.					
	MATERIAL					
	10x22/7 x 1/4 (0.032x0.032 - 0.026 x 0.026) x 2.10 = 0.0057 cum					
	0.0057 cum @ 2710 kg/ cum = 15.56kg					
	Add 5% wastage 0.78 kg					
	Total = 16.34 kg					
7306	Aluminium T or L sections	kilogram	16.34	198.00	3235.32	
7389	Anodising 15 microns on aluminium sections	kilogram	16.34	42.00	686.28	
9977	Carriage of material	L.S.	4.42	2.27	10.03	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	42.00	3.36	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0111	Carpenter 1st class	day	0.125	897.00	112.13	
	TOTAL				4047.12	W
	Add 1 % Water charges on “W”				40.47	
	TOTAL				4087.59	X
	Add GST on “X” (multiplying factor 0.2127)				869.43	
	TOTAL				4957.02	Y
	Add 15% CPOH on “Y”				743.55	
	TOTAL				5700.57	Z
	Add Cess @ 1% on “Z”				57.01	
	Cost of 10 nos				5757.58	
	Cost of 1 no				575.76	
	Say				575.75	

21.12.2 Powder coated minimum thickness 50 micron aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos handle bar.					
	MATERIAL					
	10x22/7 x 1/4 (0.032x0.032 - 0.026 x0.026) x 2.10 = 0.0057 cum					
	0.0057 cum @ 2710 kg/ cum = 15.56kg					
	Add 5% wastage 0.78 kg					
	Total = 16.34 kg					
7306	Aluminium T or L sections	kilogram	16.34	198.00	3235.32	
	Epoxy					
7392	Powder coating 50 microns on aluminium sections	kilogram	16.34	66.00	1078.44	
9977	Carriage of material	L.S.	4.42	2.27	10.03	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	42.00	3.36	
	LABOUR					
0111	Carpenter 1st class	day	0.125	897.00	112.13	
	TOTAL				4439.28	W
	Add 1 % Water charges on “W”				44.39	
	TOTAL				4483.67	X
	Add GST on “X” (multiplying factor 0.2127)				953.68	
	TOTAL				5437.35	Y
	Add 15% CPOH on “Y”				815.60	
	TOTAL				6252.95	Z
	Add Cess @ 1% on “Z”				62.53	
	Cost of 10 nos				6315.48	
	Cost of 1 no				631.55	
	Say				631.55	

21.12.3 Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos handle bar.					
	MATERIAL					
	10x22/7 x 1/4 (0.032x0.032 -0.026 x 0.026) x 2.10 = 0.0057 cum					
	0.0057 cum @ 2710 kg/ cum = 15.56kg					
	Add 5% wastage 0.78 kg					
	Total = 16.34 kg					
7306	Aluminium T or L sections	kilogram	16.34	198.00	3235.32	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7393	Polyester powder coating 50 microns on aluminium sections	kilogram	16.34	72.00	1176.48	
9977	Carriage of material	L.S.	4.42	2.27	10.03	
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	42.00	3.36	
	LABOUR					
0111	Carpenter 1st class	day	0.125	897.00	112.13	
	TOTAL				4537.32	W
	Add 1 % Water charges on “W”				45.37	
	TOTAL				4582.69	X
	Add GST on “X” (multiplying factor 0.2127)				974.74	
	TOTAL				5557.43	Y
	Add 15% CPOH on “Y”				833.61	
	TOTAL				6391.04	Z
	Add Cess @ 1% on “Z”				63.91	
	Cost of 10 nos				6454.95	
	Cost of 1 no				645.50	
	Say				645.50	

21.13 Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1 nos.					
	MATERIAL					
7001	Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	1.00	211.00	211.00	
	LABOUR					
0111	Carpenter 1st class	day	0.17	897.00	152.49	
9999	Sundry and screws	L.S.	3.64	2.27	8.26	
	TOTAL				371.75	W
	Add 1 % Water charges on “W”				3.72	
	TOTAL				375.47	X
	Add GST on “X” (multiplying factor 0.2127)				79.86	
	TOTAL				455.33	Y
	Add 15% CPOH on “Y”				68.30	
	TOTAL				523.63	Z
	Add Cess @ 1% on “Z”				5.24	
	Cost of 1 no				528.87	
	Say				528.85	

21.14 Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS: 1285, fixed with dash fastener of required dia and size (Dash fastener to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 4.082kg MATERIAL Aluminium Section (i) External member of the frame (Jindal section no TU/ 3644) V = 2x2.00 = 4.00 m H = 2x1.20 = 2.40 m					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Total= 6.40 m @ 0.607 kg/m = 3.885kg Angle cleat 38x38x4.8 mm 50 mm long 4x0.05 = 0.200 m @ 0.985 kg/m = 0.197 kg sub total = 4.082kg. Add 5% wastage = 0.204kg Total = 4.286kg					
7306	Aluminium T or L sections	kilogram	4.286	198.00	848.63	
0589	Chromium plated Brass screws 20 mm	100 Nos	0.08	152.00	12.16	
7389	Anodising 15 microns on aluminium sections	kilogram	4.286	42.00	180.01	
9977	Carriage of material	L.S.	5.20	2.27	11.80	
	LABOUR					
	For fabrication of frame					
0116	Fitter (grade 1)	day	0.04	897.00	35.88	
0139	Skilled Beldar (for floor rubbing etc.)	day	0.04	816.00	32.64	
0114	Beldar	day	0.02	736.00	14.72	
0100	Bandhani	day	0.01	816.00	8.16	
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fast-ners & sundries	L.S.	5.20	2.27	11.80	
	TOTAL				1155.80	W
	Add 1 % Water charges on “W”				11.56	
	TOTAL				1167.36	X
	Add GST on “X” (multiplying factor 0.2127)				248.30	
	TOTAL				1415.66	Y
	Add 15% CPOH on “Y”				212.35	
	TOTAL				1628.01	Z
	Add Cess @ 1% on “Z”				16.28	
	Cost for 4.082 kg				1644.29	
	Cost for 1 kg				402.81	
	Say				402.80	

21.15 Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.

21.15.1 Anodized (AC 15) aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos.					
	MATERIAL					
8660	Aluminium casement window fastener (Ano-dised AC 15)	each	10.00	55.00	550.00	
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	46.00	18.40	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	TOTAL				628.42	W
	Add 1 % Water charges on “W”				6.28	
	TOTAL				634.70	X
	Add GST on “X” (multiplying factor 0.2127)				135.00	
	TOTAL				769.70	Y
	Add 15% CPOH on “Y”				115.46	
	TOTAL				885.16	Z
	Add Cess @ 1% on “Z”				8.85	
	Cost of 10 nos				894.01	
	Cost of 1 nos				89.40	
	Say				89.40	

21.15.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos.					
	MATERIAL					
8661	Aluminium casement window fastener (powder coated)	each	10.00	61.00	610.00	
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	46.00	18.40	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	TOTAL				688.42	W
	Add 1 % Water charges on “W”				6.88	
	TOTAL				695.30	X
	Add GST on “X” (multiplying factor 0.2127)				147.89	
	TOTAL				843.19	Y
	Add 15% CPOH on “Y”				126.48	
	TOTAL				969.67	Z
	Add Cess @ 1% on “Z”				9.70	
	Cost of 10 nos				979.37	
	Cost of 1 nos				97.94	
	Say				97.95	

21.15.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos.					
	MATERIAL					
8662	Aluminium casement window fastener (polyester powder coated)	each	10.00	59.00	590.00	
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	46.00	18.40	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	TOTAL				668.42	W
	Add 1 % Water charges on “W”				6.68	
	TOTAL				675.10	X
	Add GST on “X” (multiplying factor 0.2127)				143.59	
	TOTAL				818.69	Y
	Add 15% CPOH on “Y”				122.80	
	TOTAL				941.49	Z
	Add Cess @ 1% on “Z”				9.41	
	Cost of 10 nos				950.90	
	Cost of 1 nos				95.09	
	Say				95.10	

21.16 Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge

21.16.1 Anodized (AC 15) aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos.					
	MATERIAL					
8663	Aluminium round shape handle (anodised AC 15) outer dia 100mm	each	10.00	68.00	680.00	
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	46.00	18.40	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0111	Carpenter 1st class	day	0.06	897.00	53.82	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	TOTAL				758.42	W
	Add 1 % Water charges on “W”				7.58	
	TOTAL				766.00	X
	Add GST on “X” (multiplying factor 0.2127)				162.93	
	TOTAL				928.93	Y
	Add 15% CPOH on “Y”				139.34	
	TOTAL				1068.27	Z
	Add Cess @ 1% on “Z”				10.68	
	Cost of 10 nos				1078.95	
	Cost of 1 nos				107.90	
	Say				107.90	

21.16.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos.					
	MATERIAL					
8664	Aluminium round shape handle (powder coated) outer dia 100 mm	each	10.00	69.00	690.00	
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	46.00	18.40	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	TOTAL				768.42	W
	Add 1 % Water charges on “W”				7.68	
	TOTAL				776.10	X
	Add GST on “X” (multiplying factor 0.2127)				165.08	
	TOTAL				941.18	Y
	Add 15% CPOH on “Y”				141.18	
	TOTAL				1082.36	Z
	Add Cess @ 1% on “Z”				10.82	
	Cost of 10 nos				1093.18	
	Cost of 1 nos				109.32	
	Say				109.30	

21.16.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 nos.					
	MATERIAL					
8665	Aluminium round shape handle (polyester powder coated) outer dia 100 mm	each	10.00	71.00	710.00	
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	46.00	18.40	
	LABOUR					
0111	Carpenter 1st class	day	0.06	897.00	53.82	
9977	Carriage of materials	L.S.	2.73	2.27	6.20	
	TOTAL				788.42	W
	Add 1 % Water charges on “W”				7.88	
	TOTAL				796.30	X
	Add GST on “X” (multiplying factor 0.2127)				169.37	
	TOTAL				965.67	Y
	Add 15% CPOH on “Y”				144.85	
	TOTAL				1110.52	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				11.11	
	Cost of 10 nos				1121.63	
	Cost of 1 nos				112.16	
	Say				112.15	

21.17 Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/ pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 kg					
	MATERIAL					
	Anodised aluminium grill = 10.00 kg					
	Add 20% wastage = 2 kg = 12 kg					
8774	Aluminium Grill	kg	12.00	294.00	3528.00	
9977	Carriage of materials	L.S.	11.00	2.27	24.97	
	LABOUR					
	for fixing					
0116	Fitter (grade 1)	day	0.50	897.00	448.50	
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	816.00	204.00	
0114	Beldar	day	0.25	736.00	184.00	
0100	Bandhani	day	0.05	816.00	40.80	
9999	Sundries	L.S.	25.00	2.27	56.75	
	TOTAL				4487.02	W
	Add 1 % Water charges on "W"				44.87	
	TOTAL				4531.89	X
	Add GST on "X" (multiplying factor 0.2127)				963.93	
	TOTAL				5495.82	Y
	Add 15% CPOH on "Y"				824.37	
	TOTAL				6320.19	Z
	Add Cess @ 1% on "Z"				63.20	
	Cost for 10.00 kg				6383.39	
	Cost for 1 kg				638.34	
	Say				638.35	

21.18 Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double acting hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 2.10 sqm					
	MATERIAL					
	Glass= 2.10 Sqm.					
	Add Wastage @ 10% = 0.21 sqm.					
	Total= 2.31 sqm.					
8778	Toughened glass 12 mm thickness	sqm	2.31	1925.00	4446.75	
9977	Carriage of glass panes and other materials	L.S.	8.19	2.27	18.59	
9999	Methylated spirit	L.S.	5.33	2.27	12.10	
	Stainless steel pivot and double acting hydraulic floor spring type fixing					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
21.4.1	Rate as per Item No.21.4.1 of SH:Aluminium Work	each	1.00	2823.85	2823.85	A
	LABOUR					
0119	Glazier	day	0.90	816.00	734.40	
0114	Beldar	day	0.90	736.00	662.40	
9999	Sundries,sush rog cotton etc.	L.S.	1.13	2.27	2.57	
	TOTAL				8700.66	W
	Add 1 % Water charges on “W-A”				58.77	
	TOTAL				8759.43	X
	Add GST on “X-A” (multiplying factor 0.2127)				1262.50	
	TOTAL				10021.93	Y
	Add 15% CPOH on “Y-A”				1079.71	
	TOTAL				11101.64	Z
	Add Cess @ 1% on “Z-A”				82.78	
	Cost for 2.10 sqm				11184.42	
	Cost for 1 sqm				5325.91	
	Say				5325.90	

21.19 Filling the gap in between aluminium/ stone/ wood frame and adjacent RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum work by providing weather/structural non sag elastomeric PU sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete, complying to ASTM C920, DIN 18540-F & ISO 11600

21.19.1 Upto 5 mm depth and 5 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m length width 5mm & depth 5mm					
	MATERIAL					
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	1.00	564.00	564.00	
8654	Masking tape	metre	20.00	2.00	40.00	
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.27	59.02	
9977	Carriage of material	L.S.	8.40	2.27	19.07	
	LABOUR					
0123	Mason 1st class	day	0.40	897.00	358.80	
	TOTAL				1040.89	W
	Add 1 % Water charges on “W”				10.41	
	TOTAL				1051.30	X
	Add GST on “X” (multiplying factor 0.2127)				223.61	
	TOTAL				1274.91	Y
	Add 15% CPOH on “Y”				191.24	
	TOTAL				1466.15	Z
	Add Cess @ 1% on “Z”				14.66	
	Cost of 10 metre				1480.81	
	Cost per metre				148.08	
	Say				148.10	

21.19.2 Upto 10 mm depth and 10 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m length, width 10mm & depth 10mm					
	MATERIAL					
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	1.50	564.00	846.00	
8654	Masking tape	metre	20.00	2.00	40.00	
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.27	59.02	
9977	Carriage of material	L.S.	8.40	2.27	19.07	
	LABOUR					
0123	Mason 1st class	day	0.50	897.00	448.50	
	TOTAL				1412.59	W
	Add 1 % Water charges on “W”				14.13	
	TOTAL				1426.72	X
	Add GST on “X” (multiplying factor 0.2127)				303.46	
	TOTAL				1730.18	Y
	Add 15% CPOH on “Y”				259.53	
	TOTAL				1989.71	Z
	Add Cess @ 1% on “Z”				19.90	
	Cost of 10 metre				2009.61	
	Cost per metre				200.96	
	Say				200.95	

21.19.3 Upto 20 mm depth and 20 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m length, width 20mm & depth 20mm					
	MATERIAL					
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	3.00	564.00	1692.00	
8654	Masking tape	metre	20.00	2.00	40.00	
2630	Baker rod	metre	10.00	7.00	70.00	
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.27	59.02	
9977	Carriage of material	L.S.	8.40	2.27	19.07	
	LABOUR					
0123	Mason 1st class	day	0.75	897.00	672.75	
	TOTAL				2552.84	W
	Add 1 % Water charges on “W”				25.53	
	TOTAL				2578.37	X
	Add GST on “X” (multiplying factor 0.2127)				548.42	
	TOTAL				3126.79	Y
	Add 15% CPOH on “Y”				469.02	
	TOTAL				3595.81	Z
	Add Cess @ 1% on “Z”				35.96	
	Cost of 10 metre				3631.77	
	Cost per metre				363.18	
	Say				363.20	

SUB HEAD : 22.0

WATER PROOFING

22.1 Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of :

(i) Ist layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) including applying of twice (at base and top of mortar) cement slurry @ 2.2kg/m2 (each time) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound.

(ii) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions.

(iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/ sqm thoroughly embedded in the 2nd layer.

22.1.1 Using rough kota stone.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 sqm MATERIAL Ist layer Cement mortar 1:3 for fixing of stone 10x0.025 = 0.25 cum					
3.8	Rate as per Item Number 3.8 of SH: MORTARS Kota stone slab = 10 sqm Wastage @ 10% = 1 sqm Total = 11 sqm	cum	0.250	4881.95	1220.49	
1169	Kotastone slab 25mm thick (rough cheseled) Cartage 11x0.025 @ 2330 kg/m3 = 0.64 t	sqm	11.000	280.00	3080.00	
2216	Carriage of Stone blocks white & red sand stone & kota stone slab Cement mortar 1:3 10x0.025 = 0.25 cum Wastage @ 12% = 0.03 cum Total = 0.28 cum	tonne	0.640	0.00	0.00	
3.8	Rate as per Item No.3.8 of SH: MORTARS for slurry Bed 2x10.00 @ 2.20kg/m2 = 44.00 kg Joints 4x3.7x0.02x0.025 = 0.0074 cum 25x0.56x0.02x0.025 = 0.0070 cum Total= 0.0144 cum @ 1440 kg/cum=20.74 kg Total = 64.74 kg or 0.065 tonne	cum	0.280	4881.95	1366.95	
0367	Portland Cement (OPC-43 grade)	tonne	0.065	5156.00	335.14	
2209	Carriage of Cement Mortar = 0.25 + 0.28 = 0.53 cum Cement in 0.53 cum @ 5.1 q/cum = 2.7 quintal Cement in slurry = 0.65 quintal Total = 3.35 quintal =6.70 bags of 50 kg of cement	tonne	0.065	0.00	0.00	
1213	Water proofing materials@0.10 kg per 50 kg of cement used	kilogram	0.670	45.00	30.15	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size spreadig@ 8 cudm/sqm= 1x10x8x1/1000 = 0.08 cum	cum	0.080	1400.00	112.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.080	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for base mortar & kota stone laying i/c slurry job					
0125	Mason (for plain stone work) 2nd class	day	1.200	816.00	979.20	
0114	Beldar	day	1.000	736.00	736.00	
0115	Coolie	day	1.000	736.00	736.00	
	LABOUR					
	Labour for top layer & spreading stone grit					
0125	Mason (for plain stone work) 2nd class	day	1.080	816.00	881.28	
0114	Beldar	day	1.080	736.00	794.88	
0101	Bhisti	day	0.450	816.00	367.20	
9999	Sundries	L.S.	6.240	2.27	14.16	
	TOTAL				10653.45	W
	Add 1 % Water charges on “W”				106.53	
	TOTAL				10759.98	X
	Add GST on “X” (multiplying factor 0.2127)				2288.65	
	TOTAL				13048.63	Y
	Add 15% CPOH on “Y”				1957.29	
	TOTAL				15005.92	Z
	Add Cess @ 1% on “Z”				150.06	
	Cost for 10.00 sqm				15155.98	
	Cost for 1 sqm				1515.60	
	Say				1515.60	

22.2 Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :

22.2.1 Using rough Kota stone

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 sqm					
	MATERIAL					
	Ist layer					
	Kota stone slab = 10 sqm					
	Wastage @ 10% = 1 sqm					
	Total = 11 sqm					
1169	Kotastone slab 25mm thick (rough cheseled)	sqm	11.00	280.00	3080.00	
	Cartage 11x0.025 @ 2330 kg/m3 = 0.64t					
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	0.64	0.00	0.00	
	Cement slurry for jointing					
	4x3.70 = 14.80 m					
	6x2.70 =16.20 m					
	total=31.00x0.025x0.012 = 0.0093 cum					
	Cement slurry for filling 20 mm gap					
	10x0.02 = 0.200 cum					
	= 0.2093 cum @ 1440 kg/cum = 301.39 kg or 0.301 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.301	5156.00	1551.96	
2209	Carriage of Cement	tonne	0.301	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cement plaster 1:3 with neat cement punning					
13.9.2	Rate as per item no 13.9.2 of SH : Finishing Water proofing material Cement slurry = 0.301 t = 301 kg Cement plaster 1:3 @ 13.62 q/100sqm = 136.20 kg Total = 437.20 kg =8.74 bags of 50 kg of cement	sqm	10.00	587.20	5872.00	A
1213	Water proofing materials@0.10 kg per 50 kg of cement used	kilogram	0.87	45.00	39.15	
	LABOUR					
	Fixing of Kota stone and applying cement slurry.					
0125	Mason (for plain stone work) 2nd class	day	3.00	816.00	2448.00	
0114	Beldar	day	3.00	736.00	2208.00	
0115	Coolie	day	1.00	736.00	736.00	
9999	Sundries and scaffolding	L.S.	18.20	2.27	41.31	
	TOTAL				15976.42	W
	Add 1 % Water charges on “W-A”				101.04	
	TOTAL				16077.46	X
	Add GST on “X-A” (multiplying factor 0.2127)				2170.70	
	TOTAL				18248.16	Y
	Add 15% CPOH on “Y-A”				1856.42	
	TOTAL				20104.58	Z
	Add Cess @ 1% on “Z-A”				142.33	
	Cost for 10.00sqm				20246.91	
	Cost for 1 sqm				2024.69	
	Say				2024.70	

22.3 Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:
(i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.
(ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.
(iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.
(iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	MATERIAL					
	Cement slurry @ 4.4 kg/sqm = 44.00 kg or 0.044 t					
0367	Portland Cement (OPC-43 grade)	tonne	0.044	5156.00	226.86	
2209	Carriage of Cement	tonne	0.044	0.00	0.00	
	MATERIAL					
	Cement plaster 1:3 (20 mm thick)					
3.8	Rate as per Item No.3.8 of SH: MORTARS	cum	0.224	4881.95	1093.56	
	LABOUR					
0155	Mason (average)	day	0.940	857.00	805.58	
0115	Coolie	day	1.020	736.00	750.72	
0101	Bhisti	day	1.100	816.00	897.60	
9999	Scafolding and sundries	L.S.	12.610	2.27	28.62	
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.018	38250.00	688.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	10x1.70= 17 kg+ 5% for overlaps of pvc sheet and wastage = 0.018 t					
2211	Carriage of Tar bitumen	tonne	0.018	0.00	0.00	
3002	Polyvinyle chloride sheet 400 micron thick i/c 5% for overlaps	sqm	10.500	47.00	493.50	
9977	CARRIAGE	L.S.	13.000	2.27	29.51	
1213	Water proofing materials@0.10 kg per 50 kg of cement used	kilogram	0.320	45.00	14.40	
	Cement slurry = 44 kg					
	Cement plaster 1:3=5.1x100x0.224=114.24 kg					
	Total = 158.24 kg = 3.16 Bags of 50 kg of cement					
	LABOUR for Bitumen coat and laying pvc sheet					
0131	Painter	day	0.200	816.00	163.20	
0114	Beldar	day	0.200	736.00	147.20	
0130	Mistry	day	0.060	897.00	53.82	
9999	Sundries	L.S.	7.280	2.27	16.53	
	TOTAL				5409.60	W
	Add 1 % Water charges on “W”				54.10	
	TOTAL				5463.70	X
	Add GST on “X” (multiplying factor 0.2127)				1162.13	
	TOTAL				6625.83	Y
	Add 15% CPOH on “Y”				993.87	
	TOTAL				7619.70	Z
	Add Cess @ 1% on “Z”				76.20	
	Cost for 10 sqm				7695.90	
	Cost for 1 sqm				769.59	
	Say				769.60	

22.4 Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :

22.4.1 Serrated with central bulb (225 mm wide, 8-11 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7427	Water stops Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	100.00	215.00	21500.00	
	LABOUR					
0114	Beldar	day	2.00	736.00	1472.00	
9999	Sundries & wire etc.	L.S.	26.00	2.27	59.02	
	TOTAL				23031.02	W
	Add 1 % Water charges on “W”				230.31	
	TOTAL				23261.33	X
	Add GST on “X” (multiplying factor 0.2127)				4947.68	
	TOTAL				28209.01	Y
	Add 15% CPOH on “Y”				4231.35	
	TOTAL				32440.36	Z
	Add Cess @ 1% on “Z”				324.40	
	Cost for 100 metres				32764.76	
	Cost for 1 metre				327.65	
	Say				327.65	

22.4.2 Dumb bell with central bulb (180 mm wide, 8 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7428	Water stops Dumb bell with central bulb	metre	100.00	173.00	17300.00	
	LABOUR					
0114	Beldar	day	2.00	736.00	1472.00	
9999	Sundries & wire etc.	L.S.	26.00	2.27	59.02	
	TOTAL				18831.02	W
	Add 1 % Water charges on “W”				188.31	
	TOTAL				19019.33	X
	Add GST on “X” (multiplying factor 0.2127)				4045.41	
	TOTAL				23064.74	Y
	Add 15% CPOH on “Y”				3459.71	
	TOTAL				26524.45	Z
	Add Cess @ 1% on “Z”				265.24	
	Cost for 100 metres				26789.69	
	Cost for 1 metre				267.90	
	Say				267.90	

22.4.3 Kickers (320 mm wide, 5 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7429	Kickers	metre	100.00	170.00	17000.00	
	LABOUR					
0114	Beldar	day	2.00	736.00	1472.00	
9999	Sundries & wire etc.	L.S.	26.00	2.27	59.02	
	TOTAL				18531.02	W
	Add 1 % Water charges on “W”				185.31	
	TOTAL				18716.33	X
	Add GST on “X” (multiplying factor 0.2127)				3980.96	
	TOTAL				22697.29	Y
	Add 15% CPOH on “Y”				3404.59	
	TOTAL				26101.88	Z
	Add Cess @ 1% on “Z”				261.02	
	Cost for 100 metres				26362.90	
	Cost for 1 metre				263.63	
	Say				263.65	

22.5 Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :
(a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours.
(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.
The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	Cement 10x(0.488+0.242) = 7.30 kg					
	Sealing fillets 10x0.5 kg / sqm = 5.00 kg					
	Total = 12.30 kg = 0.012 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5156.00	61.87	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2209	Carriage of Cement Bonding material 1.6 kgx30x2 = 96 kg Bitumen (blown/residual type) 10x(0.25+0.126) = 3.79 kg Sealing fillets 10x0.10 kg / sqm = 1.00 kg Wastage @ 5% on 4.79 kg = 0.24 kg Total = 5.03 kg Say 5.00 kg	tonne	0.012	0.00	0.00	
8501	Polymer modified cementation coating	kilogram	5.00	170.00	850.00	
	LABOUR					
0155	Mason (average)	day	2.00	857.00	1714.00	
0114	Beldar	day	2.00	736.00	1472.00	
0101	Bhisti	day	0.25	816.00	204.00	
9999	Sundries, brushes etc	L.S.	15.60	2.27	35.41	
	TOTAL				4337.28	W
	Add 1 % Water charges on “W”				43.37	
	TOTAL				4380.65	X
	Add GST on “X” (multiplying factor 0.2127)				931.76	
	TOTAL				5312.41	Y
	Add 15% CPOH on “Y”				796.86	
	TOTAL				6109.27	Z
	Add Cess @ 1% on “Z”				61.09	
	Cost for 10 sqm				6170.36	
	Cost for 1 sqm				617.04	
	Say				617.05	

22.6 Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:
(a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm.
(b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.
(c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around.
(d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately.
For the purpose of measurement the entire treated surface will be measured.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm MATERIAL Cement 10x(1.289+0.488) = 17.77 kg Sealing fillets @ 10% = 1.77 kg Total = 19.54kg = 0.020 tonne					
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5156.00	103.12	
2209	Carriage of Cement Bonding material 1.6 kgx30x2 = 96 kg Bitumen (blown/residual type) 10x(0.253+0.67) = 9.23 kg Wastage @ 5% = 0.46 kg Total = 9.69 kg	tonne	0.02	0.00	0.00	
8501	Polymer modified cementation coating Fibre Glass cloth = 10.00 sqm Wastage @ 10 % = 1.00 sqm Total = 11.00 sqm	kilogram	9.69	170.00	1647.30	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8502	Fibre glass cloth	sqm	11.00	35.00	385.00	
	LABOUR					
0155	Mason (average)	day	2.00	857.00	1714.00	
0114	Beldar	day	1.00	736.00	736.00	
0101	Bhisti	day	0.25	816.00	204.00	
9999	Sundries, brushes etc	L.S.	23.40	2.27	53.12	
	TOTAL				4842.54	W
	Add 1 % Water charges on “W”				48.43	
	TOTAL				4890.97	X
	Add GST on “X” (multiplying factor 0.2127)				1040.31	
	TOTAL				5931.28	Y
	Add 15% CPOH on “Y”				889.69	
	TOTAL				6820.97	Z
	Add Cess @ 1% on “Z”				68.21	
	Cost for 10 sqm				6889.18	
	Cost for 1 sqm				688.92	
	Say				688.90	

22.7 Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:

(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.

(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.

(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge.

(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.

(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test.“All above operations to be done in order and as directed and specified by the Engineer-in-Charge :

22.7.1 With average thickness of 120 mm and minimum thickness at khurra as 65 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm					
	i) Cement slury					
0367	Portland Cement (OPC-43 grade)	tonne	0.275	5156.00	1417.90	
	ii) Cement mortar 1:5 (1 cement: 5 coarsesand)					
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	2.240	3850.75	8625.68	
	iii) Roof treatment with brick bat and cement mortar					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0285	Brick Aggregate (Single size) : 63 mm	cum	9.400	700.00	6580.00	
2260	Carriage of Brick aggregate	cum	9.400	0.00	0.00	
	Cement mortar 1:5					
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	5.000	3850.75	19253.75	
	LABOUR					
0114	Beldar	day	17.500	736.00	12880.00	
0101	Bhisti	day	2.800	816.00	2284.80	
0123	Mason 1st class	day	0.500	897.00	448.50	
0124	Mason 2nd class	day	0.500	816.00	408.00	
0128	Mate	day	0.400	816.00	326.40	
	Extra labour for ramming					
0114	Beldar	day	2.500	736.00	1840.00	
9999	Sundries	L.S.	136.500	2.27	309.86	
	iv) Cement slury					
0367	Portland Cement (OPC-43 grade)	tonne	0.275	5156.00	1417.90	
0114	Beldar	day	2.000	736.00	1472.00	
	v) 20 mm cement plaster 1:4 (1 cement : 4 coarse sand)					
13.6.1	Rate as per item no 13.6.1 of SH : Finishing	sqm	100.000	487.40	48740.00	A
	vi) Water proofing compound					
	vi) Water proofing compound					
	275+275+2244.40+851 = 3645.4 kg @ 0.1 kg per bag of cement = 0.1x3645.4/50 = 7.3 kg					
1213	Water proofing materials	kilogram	7.300	45.00	328.50	
	Extra for making chequers for 10 sqm					
7233	Fibre glass tissue reinforcement Type II Grade I	sqm	105.000	82.00	8610.00	
0124	Mason 2nd class	day	3.600	816.00	2937.60	
0114	Beldar	day	3.600	736.00	2649.60	
9999	Chequer plate	L.S.	136.500	2.27	309.86	
	Add labour for laying 20 mm bed mortar					
0124	Mason 2nd class	day	5.400	816.00	4406.40	
0114	Beldar	day	5.400	736.00	3974.40	
0101	Bhisti	day	4.500	816.00	3672.00	
	TOTAL				132893.15	W
	Add 1 % Water charges on “W-A”				841.53	
	TOTAL				133734.68	X
	Add GST on “X-A” (multiplying factor 0.2127)				18078.37	
	TOTAL				151813.05	Y
	Add 15% CPOH on “Y-A”				15460.96	
	TOTAL				167274.01	Z
	Add Cess @ 1% on “Z-A”				1185.34	
	Cost for 100 sqm				168459.35	
	Cost for one sqm				1684.59	
	Say				1684.60	

22.8 Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of first and third courses of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45 Kg per square metre of area for each course, second course of roofing felt type 3 grade-I (hessian based self finished bitumen felt) and fourth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per square metre, including preparation of surface but excluding grading complete with :

22.8.1 Bitumen felt (hessian base) type 3 grade I conforming to IS : 1322

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot = 2x1.45x30 = 87 kg					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.087	38250.00	3327.75	
	Hession felt type 3 Grade I (hessian base self finished bitumen felt) = 30sqm + Add for over lapping @ 10% = 3 sqm. Total = 33 Sqm					
0322	Bitumen felt :Type 3 grade 1	sqm	33.000	80.00	2640.00	
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180 cudm	cum	0.180	985.00	177.30	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.180	0.00	0.00	
2211	Carriage of Tar bitumen l/c Hession felt =0.087t+2.7x0.001x33=0.176t	tonne	0.176	0.00	0.00	
0370	Coal (steam) = 2 quintals/t of bitumen i.e. 2x0.087 =0.174q	quintal	0.174	500.00	87.00	
2200	Carriage of steam coal	tonne	0.017	0.00	0.00	
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.550	2.27	305.43	
0131	Painter	day	2.160	816.00	1762.56	
0114	Beldar	day	3.240	736.00	2384.64	
0130	Mistry	day	0.180	897.00	161.46	
9999	Sundries, brushes etc.	L.S.	6.760	2.27	15.35	
	TOTAL				10861.49	W
	Add 1 % Water charges on “W”				108.61	
	TOTAL				10970.10	X
	Add GST on “X” (multiplying factor 0.2127)				2333.34	
	TOTAL				13303.44	Y
	Add 15% CPOH on “Y”				1995.52	
	TOTAL				15298.96	Z
	Add Cess @ 1% on “Z”				152.99	
	Cost of 30.00 Sqm.				15451.95	
	Cost of 1.00 Sqm.				515.07	
	Say				515.05	

22.9 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45, 1.20 and 1.45 Kg per square metre of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS : 1322 (Hessian based self finished bitumen felt) , sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot (1.45+1.20+1.45)x30=123kg					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.123	38250.00	4704.75	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Bitumen felt Type 3 grade 1 (hessian base self finished bitumen felt) = 60 sqm.+ Add for over lapping @ 10% = 6 sqm. Total =66 Sqm					
0322	Bitumen felt :Type 3 grade 1	sqm	66.000	80.00	5280.00	
2211	Carriage of Tar bitumen l/c Hession felt =0.123t+2.7x0.001x66=0.301t	tonne	0.301	0.00	0.00	
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.180	985.00	177.30	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.180	0.00	0.00	
0370	Coal (steam) = 2 quintals/t of bitumen i.e. 2x0.123=0.246q	quintal	0.246	500.00	123.00	
2200	Carriage of steam coal	tonne	0.025	0.00	0.00	
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.550	2.27	305.43	
0131	Painter	day	3.24	816.00	2643.84	
0114	Beldar	day	4.86	736.00	3576.96	
0130	Mistry	day	0.2	897.00	179.40	
9999	Sundries, brushes etc.	L.S.	6.76	2.27	15.35	
	TOTAL				17006.03	W
	Add 1 % Water charges on “W”				170.06	
	TOTAL				17176.09	X
	Add GST on “X” (multiplying factor 0.2127)				3653.35	
	TOTAL				20829.44	Y
	Add 15% CPOH on “Y”				3124.42	
	TOTAL				23953.86	Z
	Add Cess @ 1% on “Z”				239.54	
	Cost of 30.00 Sqm.				24193.40	
	Cost of 1.00 Sqm.				806.45	
	Say				806.45	

22.10 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade I (fibre base self finished bitumen felt) six and final courses of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface, excluding grading, compete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 sqm Blown bitumen applied hot (1.45+1.20+1.70)x30 = 131 kg.					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.131	38250.00	5010.75	
	Bitumen felt type B grade I (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm					
0318	Bitumen felt fibre base (vegetable or animal):- Type 2 grade 1	sqm	66.000	75.00	4950.00	
2211	Carriage of Tar bitumen l/c Hession felt =(0.131 t+2.22x.001x66 = 0.278t)	tonne	0.278	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.180	985.00	177.30	
	CARRIAGE:					
2202	Carriage of Stone aggregate below 40 mm nominal size Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 2x0.131=0.262q	cum	0.180	0.00	0.00	
0370	Coal (steam)	quintal	0.262	500.00	131.00	
2200	Carriage of steam coal	tonne	0.026	0.00	0.00	
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.550	2.27	305.43	
	LABOUR					
0131	Painter	day	4.320	816.00	3525.12	
0114	Beldar	day	6.480	736.00	4769.28	
0130	Mistry	day	0.360	897.00	322.92	
9999	Sundries, brushes etc.	L.S.	6.760	2.27	15.35	
	TOTAL				19207.15	W
	Add 1 % Water charges on “W”				192.07	
	TOTAL				19399.22	X
	Add GST on “X” (multiplying factor 0.2127)				4126.21	
	TOTAL				23525.43	Y
	Add 15% CPOH on “Y”				3528.81	
	TOTAL				27054.24	Z
	Add Cess @ 1% on “Z”				270.54	
	Cost of 30.00 Sqm.				27324.78	
	Cost of 1.00 Sqm.				910.83	
	Say				910.85	

22.11 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade II (glass fibre base self finished bitumen felt) and sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot (1.45+1.20+1.70)x30 =131 kg.					
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality Bitumen felt as per IS 7193 Grade II (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm	tonne	0.131	38250.00	5010.75	
0318	Bitumen felt fibre base (vegetable or animal):As per IS 7193 Grade I	sqm	66.000	75.00	4950.00	
2211	Carriage of Tar bitumen l/c Hession felt= (0.131t+3.08x.001x66=334t.)	tonne	0.334	0.00	0.00	
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.180	985.00	177.30	
2202	Carriage of Stone aggregate below 40 mm nominal size Fuel (Steam coal) = 2 quintals/t of bitumen	cum	0.180	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	i.e. 2x0.131=0.262q					
0370	Coal (steam)	quintal	0.262	500.00	131.00	
2200	Carriage of steam coal	tonne	0.026	0.00	0.00	
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.550	2.27	305.43	
	LABOUR					
0131	Painter	day	4.320	816.00	3525.12	
0114	Beldar	day	6.480	736.00	4769.28	
0130	Mistry	day	0.360	897.00	322.92	
9999	Sundries, brushes etc.	L.S.	6.760	2.27	15.35	
	TOTAL				19207.15	W
	Add 1 % Water charges on “W”				192.07	
	TOTAL				19399.22	X
	Add GST on “X” (multiplying factor 0.2127)				4126.21	
	TOTAL				23525.43	Y
	Add 15% CPOH on “Y”				3528.81	
	TOTAL				27054.24	Z
	Add Cess @ 1% on “Z”				270.54	
	Cost of 30.00 Sqm.				27324.78	
	Cost of 1.00 Sqm.				910.83	
	Say				910.85	

22.12 Supplying and applying bituminous solution primer on roof and / or wall surface at 0.24 litre per sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sq. metres					
	MATERIAL					
0316	Bitumen solution primer of approved quality	litre	2.40	50.00	120.00	
9977	CARRIAGE	L.S.	1.43	2.27	3.25	
	LABOUR					
0131	Painter	day	0.17	816.00	138.72	
0114	Beldar	day	0.17	736.00	125.12	
9999	Sundries brushes etc.	L.S.	13.52	2.27	30.69	
	TOTAL				417.78	W
	Add 1 % Water charges on “W”				4.18	
	TOTAL				421.96	X
	Add GST on “X” (multiplying factor 0.2127)				89.75	
	TOTAL				511.71	Y
	Add 15% CPOH on “Y”				76.76	
	TOTAL				588.47	Z
	Add Cess @ 1% on “Z”				5.88	
	Cost of 10.00 Sqm.				594.35	
	Cost of 1.00 Sqm.				59.44	
	Say				59.45	

22.13 Deduct for omitting in water proofing treatment final course of spreading stone grit 6 mm down size or pea sized gravel :

22.13.1 at 6 cudm per sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
1177	Stone grit 6 mm and down size or pea sized gravel	cum	0.06	985.00	59.10	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	6x10 = 60 cudm					
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.06	0.00	0.00	
9999	Labour for screening and spreading grit	L.S.	21.58	2.27	48.99	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				123.44	W
	Add 1 % Water charges on “W”				1.23	
	TOTAL				124.67	X
	Add GST on “X” (multiplying factor 0.2127)				26.52	
	TOTAL				151.19	Y
	Add 15% CPOH on “Y”				22.68	
	TOTAL				173.87	Z
	Add Cess @ 1% on “Z”				1.74	
	Cost of 10.00 Sqm.				175.61	
	Cost of 1.00 Sqm.				17.56	
	Say				17.55	

22.13.2 at 8 cudm per sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm.					
	MATERIAL					
1177	Stone grit 8 mm and down size or pea sized gravel	cum	0.08	985.00	78.80	
	8x10 = 80 cudm					
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.08	0.00	0.00	
9999	Labour for screening and spreading grit	L.S.	26.91	2.27	61.09	
9999	Sundries	L.S.	6.76	2.27	15.35	
	TOTAL				155.24	W
	Add 1 % Water charges on “W”				1.55	
	TOTAL				156.79	X
	Add GST on “X” (multiplying factor 0.2127)				33.35	
	TOTAL				190.14	Y
	Add 15% CPOH on “Y”				28.52	
	TOTAL				218.66	Z
	Add Cess @ 1% on “Z”				2.19	
	Cost of 10.00 Sqm.				220.85	
	Cost of 1.00 Sqm.				22.09	
	Say				22.10	

22.14 Grading roof for water proofing treatment with

22.14.1 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cum.					
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.67	1425.00	954.75	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.22	1400.00	308.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	0.00	0.00	
0982	Coarse sand (zone III)	cum	0.45	1450.00	652.50	
2203	Carriage of Coarse sand	cum	0.45	0.00	0.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0367	Portland Cement (OPC-43 grade)	tonne	0.32	5156.00	1649.92	
2209	Carriage of Cement	tonne	0.32	0.00	0.00	
	LABOUR					
0114	Beldar	day	1.63	736.00	1199.68	
0101	Bhisti	day	0.70	816.00	571.20	
0123	Mason 1st class	day	0.10	897.00	89.70	
9999	Sundries, brushes etc.	L.S.	14.30	2.27	32.46	
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with hooper	day	0.07	900.00	63.00	
0012	Vibrator (Needle type 40 mm)	day	0.07	400.00	28.00	
9999	Sundries for laying in terrace	L.S.	45.76	2.27	103.88	
	TOTAL				5653.09	W
	Add 1 % Water charges on “W”				56.53	
	TOTAL				5709.62	X
	Add GST on “X” (multiplying factor 0.2127)				1214.44	
	TOTAL				6924.06	Y
	Add 15% CPOH on “Y”				1038.61	
	TOTAL				7962.67	Z
	Add Cess @ 1% on “Z”				79.63	
	Cost of one cum				8042.30	
	Say				8042.30	

22.14.2 Cement mortar 1:3 (1 cement : 3 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cum.					
	MATERIAL					
	Cement mortar 1:3					
3.8	Rate as per Item No.3.8 of SH:Mortars	cum	1.00	4881.95	4881.95	
	LABOUR					
0155	Mason (average)	day	1.00	857.00	857.00	
0114	Beldar	day	2.00	736.00	1472.00	
0101	Bhisti	day	0.50	816.00	408.00	
0115	Coolie	day	5.00	736.00	3680.00	
9999	Sundries	L.S.	11.70	2.27	26.56	
	TOTAL				11325.51	W
	Add 1 % Water charges on “W”				113.26	
	TOTAL				11438.77	X
	Add GST on “X” (multiplying factor 0.2127)				2433.03	
	TOTAL				13871.80	Y
	Add 15% CPOH on “Y”				2080.77	
	TOTAL				15952.57	Z
	Add Cess @ 1% on “Z”				159.53	
	Cost of one cum				16112.10	
	Say				16112.10	

22.14.3 Cement mortar 1:4 (1cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one cum.					
	MATERIAL					
	Cement mortar 1:4					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	1.00	4211.70	4211.70	
	LABOUR					
0155	Mason (average)	day	1.00	857.00	857.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	2.00	736.00	1472.00	
0101	Bhisti	day	0.50	816.00	408.00	
0115	Coolie	day	5.00	736.00	3680.00	
9999	Sundries	L.S.	10.79	2.27	24.49	
	TOTAL				10653.19	W
	Add 1 % Water charges on “W”				106.53	
	TOTAL				10759.72	X
	Add GST on “X” (multiplying factor 0.2127)				2288.59	
	TOTAL				13048.31	Y
	Add 15% CPOH on “Y”				1957.25	
	TOTAL				15005.56	Z
	Add Cess @ 1% on “Z”				150.06	
	Cost of one cum				15155.62	
	Say				15155.60	

22.22 Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer’s specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 kg					
	MATERIAL :					
0352	Integral crystalline admixture	kg	1.00	253.00	253.00	
	LABOUR :					
9999	For measuring, making and mixing etc..	L.S.	5.80	2.27	13.17	
9999	Sundries	L.S.	1.15	2.27	2.61	
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.27	3.97	
	TOTAL				272.75	W
	Add 1 % Water charges on “W”				2.73	
	TOTAL				275.48	X
	Add GST on “X” (multiplying factor 0.2127)				58.59	
	TOTAL				334.07	Y
	Add 15% CPOH on “Y”				50.11	
	TOTAL				384.18	Z
	Add Cess @ 1% on “Z”				3.84	
	Cost for 1.00 Kg				388.02	
	Say				388.00	

22.22A Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
8511	Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre	litre	11.30	255.00	2881.50	
9977	Carriage of materials	L.S.	1.43	2.27	3.25	
	LABOUR					
0115	Coolie	day	0.67	736.00	493.12	
0131	Painter	day	0.67	816.00	546.72	
9999	Wire brush brushes, rollers etc.	L.S.	6.76	2.27	15.35	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3958.24	W
	Add 1 % Water charges on “W”				39.58	
	TOTAL				3997.82	X
	Add GST on “X” (multiplying factor 0.2127)				850.34	
	TOTAL				4848.16	Y
	Add 15% CPOH on “Y”				727.22	
	TOTAL				5575.38	Z
	Add Cess @ 1% on “Z”				55.75	
	Cost of 10 sqm				5631.13	
	Cost of 1 sqm				563.11	
	Say				563.10	

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

22.23.1 For vertical surface two coats @ 0.70 kg per sqm per coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 sqm					
	MATERIAL :					
0351	Integral crystalline slurry (2 x .70kg / sq.mtr. = 1.40kg)	kg	1.40	214.00	299.60	
	LABOUR					
9999	For application of waterproofing material	L.S.	11.55	2.27	26.22	
9999	Sundries	L.S.	1.15	2.27	2.61	
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.27	3.97	
	TOTAL				332.40	W
	Add 1 % Water charges on “W”				3.32	
	TOTAL				335.72	X
	Add GST on “X” (multiplying factor 0.2127)				71.41	
	TOTAL				407.13	Y
	Add 15% CPOH on “Y”				61.07	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				468.20	Z
	Add Cess @ 1% on “Z”				4.68	
	Cost for 1.00 sqm				472.88	
	Say				472.90	

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 sqm					
	MATERIAL :					
0351	Integral crystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg)	kilogram	1.10	214.00	235.40	
	LABOUR :					
9999	For application of waterproofing material	L.S.	5.75	2.27	13.05	
9999	Sundries	L.S.	1.15	2.27	2.61	
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.27	3.97	
	TOTAL				255.03	W
	Add 1 % Water charges on “W”				2.55	
	TOTAL				257.58	X
	Add GST on “X” (multiplying factor 0.2127)				54.79	
	TOTAL				312.37	Y
	Add 15% CPOH on “Y”				46.86	
	TOTAL				359.23	Z
	Add Cess @ 1% on “Z”				3.59	
	Cost for 1.00 sqm				362.82	
	Say				362.80	

22.23A Providing & Applying polymer modified, flexible cementatious negative side waterproofing coating with elastic waterproofing polymers on interior wall plaster surface in three coats @14.35 kg /10 sqm. one coat of self priming of cementatious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementatious waterproofing polymer (dilution with water in the ratio of 3:1) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster is visible, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
8512	Cementitious water proofing coating with elastic polymers 14.35 kg + 0.72 (Add wastage 5%) = 15.07 litre	kg	15.07	170.00	2561.90	
9977	Carriage of materials	L.S.	1.56	2.27	3.54	
	LABOUR					
0115	Coolie	day	0.23	736.00	169.28	
0131	Painter	day	0.46	816.00	375.36	
9999	Wire brush brushes, rollers etc.	L.S.	7.15	2.27	16.23	
9999	Sundries	L.S.	8.06	2.27	18.30	
	TOTAL				3144.61	W
	Add 1 % Water charges on “W”				31.45	
	TOTAL				3176.06	X
	Add GST on “X” (multiplying factor 0.2127)				675.55	
	TOTAL				3851.61	Y
	Add 15% CPOH on “Y”				577.74	
	TOTAL				4429.35	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				44.29	
	Cost of 10 sqm				4473.64	
	Cost of 1 sqm				447.36	
	Say				447.35	

22.24 Providing and applying integral crystalline (dry shake) of hydrophilic in nature for waterproofing treatment to the RCC structures like basement raft, foundation slab, sewage & water treatment plant slab, warehouses floor, parking structures and water tank base slab etc. sprinkled @0.60kg per sqm or higher as recommended by the manufacturer's specification over the lean concrete of above cited structures. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 85%, compared control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline dry-shake shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 sqm					
	MATERIAL :					
0354	Integral crystalline dry shake	kilogram	0.60	308.00	184.80	
	LABOUR					
9999	For measuring and sprinkling of waterproofing material	L.S.	11.55	2.27	26.22	
9999	Sundries	L.S.	1.15	2.27	2.61	
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.27	3.97	
	TOTAL				217.60	W
	Add 1 % Water charges on "W"				2.18	
	TOTAL				219.78	X
	Add GST on "X" (multiplying factor 0.2127)				46.75	
	TOTAL				266.53	Y
	Add 15% CPOH on "Y"				39.98	
	TOTAL				306.51	Z
	Add Cess @ 1% on "Z"				3.07	
	Cost for 1.00 sqm				309.58	
	Say				309.60	

22.24A Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and UV resistance properties to be applied as intermediate finish in desired pattern @ 43.04 kg/10 sqm to form film of 1- 1.5 mm thickness after scrapping and properly cleaning the surface to remove loose particles from the plaster surface, followed by top coating with Premium Acrylic Smooth exterior paint with Silicone additives of required shade by two or more coats @ 1.43 litre/10 sqm, complete as the direction of Engineer -in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
8513	Acrylic modified resin based texture 43.04 kg + 2.15 (Add wastage 5%) = 45.19 kg Quantity taken for cost using once = 10 sqm	kg	45.19	50.00	2259.50	
	Top coat with premium acrylic exterior paint (two or more coats)					
13.112.1	Rate as per Item No.13.112.1 of SH:Finishing	sqm	10.00	131.30	1313.00	A
9977	Carriage of materials	L.S.	3.90	2.27	8.85	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0115	Coolie	day	0.56	736.00	412.16	
0123	Mason 1st class	day	0.56	897.00	502.32	
9999	Sundries and scaffolding	L.S.	40.00	2.27	90.80	
	TOTAL				4586.63	W
	Add 1 % Water charges on “W-A”				32.74	
	TOTAL				4619.37	X
	Add GST on “X-A” (multiplying factor 0.2127)				703.26	
	TOTAL				5322.63	Y
	Add 15% CPOH on “Y-A”				601.44	
	TOTAL				5924.07	Z
	Add Cess @ 1% on “Z-A”				46.11	
	Cost of 10 sqm				5970.18	
	Cost of 1 sqm				597.02	
	Say				597.00	

22.25 Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts crystalline mortar : 1 part water) for the treatment of faulty construction joints, cracks, tie rod holes and spalled & honeycombed surface of RCC underground structures like basement, water tanks, bridge deck etc. to ensure water tightness. The crystallie mortar shall conform to the EN 1504-3 having compressive strength Class R4 ≥45 MPa and adhesive bond strength Class R3 ≥1.5 MPa. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.

22.25.1 For sealing cracks and faulty construction joints, routed out/making U-shape groove size 25x25mm and then primed the area with integral crystalline slurry @0.05kg/running metre and while the surface is tacky filled the groove upto surface with crystalline mortar @1.50kg/ running metre. Once crystalline mortar is touch dry then finally applied two coats of integral crystalline slurry @0.05kg/running metre per coat.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 meter					
	MATERIAL :					
0353	Crystalline Mortar @1.50 kg per meter	kilogram	1.50	209.00	313.50	
0351	Integral crystalline slurry for priming and finishing	kilogram	0.150	214.00	32.10	
	(3 x 0.05kg / meter) = 0.15kg					
	LABOUR					
9999	For making crystalline mortar and repair work etc..	L.S.	14.450	2.27	32.80	
9999	Sundries	L.S.	1.150	2.27	2.61	
9999	Carriage of material and tools cost etc..	L.S.	1.750	2.27	3.97	
	TOTAL				384.98	W
	Add 1 % Water charges on “W”				3.85	
	TOTAL				388.83	X
	Add GST on “X” (multiplying factor 0.2127)				82.70	
	TOTAL				471.53	Y
	Add 15% CPOH on “Y”				70.73	
	TOTAL				542.26	Z
	Add Cess @ 1% on “Z”				5.42	
	Cost for 1.00 meter				547.68	
	Say				547.70	

22.25.2 For patching of tie rod holes, prepared tie rod hole surface and then primed the area with integral crystalline slurry @0.070kg/sqm and while the surface is tacky repair and then filled the tie rod holes with crystalline mortar@0.040kg per hole. The crystalline mortar should be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040kg to fill the hole)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 no. hole					
	MATERIAL :					
0353	Crystalline mortar@0.040 kg per hole	kilogram	0.04	209.00	8.36	
	LABOUR					
9999	For making crystalline mortar and repair work etc..	L.S.	2.90	2.27	6.58	
9999	Sundries	L.S.	0.30	2.27	0.68	
9999	Carriage of material and tools cost etc..	L.S.	0.25	2.27	0.57	
	TOTAL				16.19	W
	Add 1 % Water charges on “W”				0.16	
	TOTAL				16.35	X
	Add GST on “X” (multiplying factor 0.2127)				3.48	
	TOTAL				19.83	Y
	Add 15% CPOH on “Y”				2.97	
	TOTAL				22.80	Z
	Add Cess @ 1% on “Z”				0.23	
	Cost for each hole				23.03	
	Say				23.05	

22.26 Providing and applying of swellable type water stop tape, 19 mm x 25 mm thick in linear metre (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running metre. Over the primed surface swellable type water stop tape shall be placed. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 meter					
	MATERIAL :					
0355	Swellable type water stop tape (Crystalline sealing compound)	metre	1.00	354.00	354.00	
0356	Swellable type water stop primer (@3.78 litre per 240 running meter)	Litre	0.016	1430.00	22.88	
	LABOUR					
9999	For application of primer and swellable water stop	L.S.	8.65	2.27	19.64	
9999	Sundries	L.S.	1.15	2.27	2.61	
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.27	3.97	
	TOTAL				403.10	W
	Add 1 % Water charges on “W”				4.03	
	TOTAL				407.13	X
	Add GST on “X” (multiplying factor 0.2127)				86.60	
	TOTAL				493.73	Y
	Add 15% CPOH on “Y”				74.06	
	TOTAL				567.79	Z
	Add Cess @ 1% on “Z”				5.68	
	Cost for 1.00 metre				573.47	
	Say				573.45	

SUB HEAD : 23.0

RAIN WATER HARVESTING & TUBEWELLS

23.1 Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.

23.1.1 All types of soil

23.1.1.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 35 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.000	7850.00	7850.00	
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator & security					
0114	Beldar	day	2.00	736.00	1472.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				17411.60	W
	Add 1 % Water charges on “W”				174.12	
	TOTAL				17585.72	X
	Add GST on “X” (multiplying factor 0.2127)				3740.48	
	TOTAL				21326.20	Y
	Add 15% CPOH on “Y”				3198.93	
	TOTAL				24525.13	Z
	Add Cess @ 1% on “Z”				245.25	
	Cost for 35 metre				24770.38	
	Cost of 1 metre				707.73	
	Say				707.75	

23.1.1.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 32 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.000	7850.00	7850.00	
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator & security					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	2.00	736.00	1472.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				17411.60	W
	Add 1 % Water charges on “W”				174.12	
	TOTAL				17585.72	X
	Add GST on “X” (multiplying factor 0.2127)				3740.48	
	TOTAL				21326.20	Y
	Add 15% CPOH on “Y”				3198.93	
	TOTAL				24525.13	Z
	Add Cess @ 1% on “Z”				245.25	
	Cost for 32 metre				24770.38	
	Cost of 1 metre				774.07	
	Say				774.05	

23.1.1.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 25 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.000	7850.00	7850.00	
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator & security					
0114	Beldar	day	2.00	736.00	1472.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				17411.60	W
	Add 1 % Water charges on “W”				174.12	
	TOTAL				17585.72	X
	Add GST on “X” (multiplying factor 0.2127)				3740.48	
	TOTAL				21326.20	Y
	Add 15% CPOH on “Y”				3198.93	
	TOTAL				24525.13	Z
	Add Cess @ 1% on “Z”				245.25	
	Cost for 25 metre				24770.38	
	Cost of 1 metre				990.82	
	Say				990.80	

23.1.2 Rocky strata including Boulders

23.1.2.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.900	7850.00	7065.00	
1235	Diesel oil	litre	6.000	89.62	537.72	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Extra diesel required for boring in rocky strata					
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator & security					
0134	Rock Hole Driller	day	0.75	736.00	552.00	
0114	Beldar	day	3.00	736.00	2208.00	
0103	Blacksmith 2nd class	day	0.75	816.00	612.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				19064.32	W
	Add 1 % Water charges on “W”				190.64	
	TOTAL				19254.96	X
	Add GST on “X” (multiplying factor 0.2127)				4095.53	
	TOTAL				23350.49	Y
	Add 15% CPOH on “Y”				3502.57	
	TOTAL				26853.06	Z
	Add Cess @ 1% on “Z”				268.53	
	Cost for 16 metre				27121.59	
	Cost of 1 metre				1695.10	
	Say				1695.10	

23.1.2.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.900	7850.00	7065.00	
1235	Diesel oil	litre	8.000	89.62	716.96	
	Extra diesel required for boring in rockystrata					
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0134	Rock Hole Driller	day	1.00	736.00	736.00	
0114	Beldar	day	4.00	736.00	2944.00	
0103	Blacksmith 2nd class	day	0.75	816.00	612.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				20163.56	W
	Add 1 % Water charges on “W”				201.64	
	TOTAL				20365.20	X
	Add GST on “X” (multiplying factor 0.2127)				4331.68	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				24696.88	Y
	Add 15% CPOH on "Y"				3704.53	
	TOTAL				28401.41	Z
	Add Cess @ 1% on "Z"				284.01	
	Cost for 16 metre				28685.42	
	Cost of 1 metre				1792.84	
	Say				1792.85	

23.1.2.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.900	7850.00	7065.00	
1235	Diesel oil	litre	16.000	89.62	1433.92	
	Extra diesel required for boring in rockystrata					
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0134	Rock Hole Driller	day	1.20	736.00	883.20	
0114	Beldar	day	8.00	736.00	5888.00	
0103	Blacksmith 2nd class	day	0.75	816.00	612.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				23971.72	W
	Add 1 % Water charges on "W"				239.72	
	TOTAL				24211.44	X
	Add GST on "X" (multiplying factor 0.2127)				5149.77	
	TOTAL				29361.21	Y
	Add 15% CPOH on "Y"				4404.18	
	TOTAL				33765.39	Z
	Add Cess @ 1% on "Z"				337.65	
	Cost for 16 metre				34103.04	
	Cost of 1 metre				2131.44	
	Say				2131.45	

23.2 Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre & upto 150 metre depth below ground level.

23.2.1 All types of soil

23.2.1.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.000	7850.00	7850.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0114	Beldar	day	2.00	736.00	1472.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				17411.60	W
	Add 1 % Water charges on “W”				174.12	
	TOTAL				17585.72	X
	Add GST on “X” (multiplying factor 0.2127)				3740.48	
	TOTAL				21326.20	Y
	Add 15% CPOH on “Y”				3198.93	
	TOTAL				24525.13	Z
	Add Cess @ 1% on “Z”				245.25	
	Cost for 30 metre				24770.38	
	Cost of 1 metre				825.68	
	Say				825.70	

23.2.1.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 27 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.000	7850.00	7850.00	
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0114	Beldar	day	2.00	736.00	1472.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				17411.60	W
	Add 1 % Water charges on “W”				174.12	
	TOTAL				17585.72	X
	Add GST on “X” (multiplying factor 0.2127)				3740.48	
	TOTAL				21326.20	Y
	Add 15% CPOH on “Y”				3198.93	
	TOTAL				24525.13	Z
	Add Cess @ 1% on “Z”				245.25	
	Cost for 27 metre				24770.38	
	Cost of 1 metre				917.42	
	Say				917.40	

23.2.1.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.000	7850.00	7850.00	
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0114	Beldar	day	2.00	736.00	1472.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				17411.60	W
	Add 1 % Water charges on “W”				174.12	
	TOTAL				17585.72	X
	Add GST on “X” (multiplying factor 0.2127)				3740.48	
	TOTAL				21326.20	Y
	Add 15% CPOH on “Y”				3198.93	
	TOTAL				24525.13	Z
	Add Cess @ 1% on “Z”				245.25	
	Cost for 20 metre				24770.38	
	Cost of 1 metre				1238.52	
	Say				1238.50	

23.2.2 Rocky strata including Boulders

23.2.2.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.900	7850.00	7065.00	
1235	Diesel oil	litre	10.000	89.62	896.20	
	Extra diesel required for boring in rockystrata					
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/ 140Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0134	Rock Hole Driller	day	1.00	736.00	736.00	
0114	Beldar	day	5.00	736.00	3680.00	
0103	Blacksmith 2nd class	day	0.70	816.00	571.20	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				21038.00	W
	Add 1 % Water charges on “W”				210.38	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				21248.38	X
	Add GST on “X” (multiplying factor 0.2127)				4519.53	
	TOTAL				25767.91	Y
	Add 15% CPOH on “Y”				3865.19	
	TOTAL				29633.10	Z
	Add Cess @ 1% on “Z”				296.33	
	Cost for 16 metre				29929.43	
	Cost of 1 metre				1870.59	
	Say				1870.60	

23.2.2.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 16 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.900	7850.00	7065.00	
1235	Diesel oil	litre	12.000	89.62	1075.44	
	Extra diesel required for boring in rockystrata					
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0134	Rock Hole Driller	day	1.00	736.00	736.00	
0114	Beldar	day	6.00	736.00	4416.00	
0103	Blacksmith 2nd class	day	0.75	816.00	612.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				21994.04	W
	Add 1 % Water charges on “W”				219.94	
	TOTAL				22213.98	X
	Add GST on “X” (multiplying factor 0.2127)				4724.91	
	TOTAL				26938.89	Y
	Add 15% CPOH on “Y”				4040.83	
	TOTAL				30979.72	Z
	Add Cess @ 1% on “Z”				309.80	
	Cost for 16 metre				31289.52	
	Cost of 1 metre				1955.60	
	Say				1955.60	

23.2.2.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 14 metre					
	MACHINERY :					
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.950	7850.00	7457.50	
1235	Diesel oil	litre	16.000	89.62	1433.92	
	Extra diesel required for boring in rockystrata					
0005	Hire charges of Diesel Truck - 9 tonne	day	0.429	4400.00	1887.60	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140					
	Loading, unloading &Errection charges of drilling Rig Machine					
	LABOUR					
0114	Beldar	day	4.00	736.00	2944.00	
0130	Mistry	day	1.00	897.00	897.00	
7763	Water supply tanker of 5000 litre capacity	each	1.00	1625.00	1625.00	
	Extra labour to assist M/C operator &security					
0134	Rock Hole Driller	day	1.20	736.00	883.20	
0114	Beldar	day	8.00	736.00	5888.00	
0103	Blacksmith 2nd class	day	1.00	816.00	816.00	
0113	Chowkidar	day	1.00	736.00	736.00	
	TOTAL				24568.22	W
	Add 1 % Water charges on “W”				245.68	
	TOTAL				24813.90	X
	Add GST on “X” (multiplying factor 0.2127)				5277.92	
	TOTAL				30091.82	Y
	Add 15% CPOH on “Y”				4513.77	
	TOTAL				34605.59	Z
	Add Cess @ 1% on “Z”				346.06	
	Cost for 14 metre				34951.65	
	Cost of 1 metre				2496.55	
	Say				2496.55	

23.3 Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.

23.3.1 100 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7758	uPVC blind pipe 100 mm dia as per IS: 12818	metre	100.00	465.00	46500.00	
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.50	0.00	0.00	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries	L.S.	10.07	2.27	22.86	
	TOTAL				47258.86	W
	Add 1 % Water charges on “W”				472.59	
	TOTAL				47731.45	X
	Add GST on “X” (multiplying factor 0.2127)				10152.48	
	TOTAL				57883.93	Y
	Add 15% CPOH on “Y”				8682.59	
	TOTAL				66566.52	Z
	Add Cess @ 1% on “Z”				665.67	
	Cost of 100 metres				67232.19	
	Cost of 1 metre				672.32	
	Say				672.30	

23.3.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7745	uPVC blind pipe 150 mm dia as per IS: 12818	metre	100.00	550.00	55000.00	
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.50	0.00	0.00	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.27	22.86	
	TOTAL				55758.86	W
	Add 1 % Water charges on “W”				557.59	
	TOTAL				56316.45	X
	Add GST on “X” (multiplying factor 0.2127)				11978.51	
	TOTAL				68294.96	Y
	Add 15% CPOH on “Y”				10244.24	
	TOTAL				78539.20	Z
	Add Cess @ 1% on “Z”				785.39	
	Cost of 100 metres				79324.59	
	Cost of 1 metre				793.25	
	Say				793.25	

23.3.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7746	uPVC blind pipe 200 mm dia as per IS: 12818	metre	100.00	775.00	77500.00	
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.50	0.00	0.00	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries	L.S.	10.07	2.27	22.86	
	TOTAL				78258.86	W
	Add 1 % Water charges on “W”				782.59	
	TOTAL				79041.45	X
	Add GST on “X” (multiplying factor 0.2127)				16812.12	
	TOTAL				95853.57	Y
	Add 15% CPOH on “Y”				14378.04	
	TOTAL				110231.61	Z
	Add Cess @ 1% on “Z”				1102.32	
	Cost of 100 metres				111333.93	
	Cost of 1 metre				1113.34	
	Say				1113.35	

23.4 Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.

23.4.1 100 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7759	uPVC slotted pipe 100 mm dia as per IS: 12818	metre	100.00	475.00	47500.00	
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.50	0.00	0.00	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.27	22.86	
	TOTAL				48258.86	W
	Add 1 % Water charges on “W”				482.59	
	TOTAL				48741.45	X
	Add GST on “X” (multiplying factor 0.2127)				10367.31	
	TOTAL				59108.76	Y
	Add 15% CPOH on “Y”				8866.31	
	TOTAL				67975.07	Z
	Add Cess @ 1% on “Z”				679.75	
	Cost of 100 metres				68654.82	
	Cost of 1 metre				686.55	
	Say				686.55	

23.4.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7751	uPVC slotted pipe 150 mm dia as per IS: 12818	metre	100.00	560.00	56000.00	
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.50	0.00	0.00	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.27	22.86	
w	TOTAL				56758.86	W
	Add 1 % Water charges on “W”				567.59	
	TOTAL				57326.45	X
	Add GST on “X” (multiplying factor 0.2127)				12193.34	
	TOTAL				69519.79	Y
	Add 15% CPOH on “Y”				10427.97	
	TOTAL				79947.76	Z
	Add Cess @ 1% on “Z”				799.48	
	Cost of 100 metres				80747.24	
	Cost of 1 metre				807.47	
	Say				807.45	

23.4.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7752	uPVC slotted pipe 200 mm dia as per IS: 12818	metre	100.00	875.00	87500.00	
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.50	0.00	0.00	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	736.00	368.00	
0115	Coolie	day	0.50	736.00	368.00	
9999	Sundries (Adhesive etc.)	L.S.	13.42	2.27	30.46	
	TOTAL				88266.46	W
	Add 1 % Water charges on “W”				882.66	
	TOTAL				89149.12	X
	Add GST on “X” (multiplying factor 0.2127)				18962.02	
	TOTAL				108111.14	Y
	Add 15% CPOH on “Y”				16216.67	
	TOTAL				124327.81	Z
	Add Cess @ 1% on “Z”				1243.28	
	Cost of 100 metres				125571.09	
	Cost of 1 metre				1255.71	
	Say				1255.70	

23.5 Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
7753	Boulder 50 mm to 200 mm including carriage	cum	1.00	875.00	875.00	
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	1.00	2.27	2.27	
	TOTAL				1061.27	W
	Add 1 % Water charges on “W”				10.61	
	TOTAL				1071.88	X
	Add GST on “X” (multiplying factor 0.2127)				227.99	
	TOTAL				1299.87	Y
	Add 15% CPOH on “Y”				194.98	
	TOTAL				1494.85	Z
	Add Cess @ 1% on “Z”				14.95	
	Cost of 1 Cum.				1509.80	
	Say				1509.80	

23.6 Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7754	Gravel 5 mm to 10 mm including carriage	cum	1.00	895.00	895.00	
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	1.00	2.27	2.27	
	TOTAL				1081.27	W
	Add 1 % Water charges on “W”				10.81	
	TOTAL				1092.08	X
	Add GST on “X” (multiplying factor 0.2127)				232.29	
	TOTAL				1324.37	Y
	Add 15% CPOH on “Y”				198.66	
	TOTAL				1523.03	Z
	Add Cess @ 1% on “Z”				15.23	
	Cost of 1 Cum.				1538.26	
	Say				1538.25	

23.7 Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
7755	Gravel 1.5 mm to 2 mm including carriage	cum	1.00	895.00	895.00	
	LABOUR					
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries	L.S.	1.00	2.27	2.27	
	TOTAL				1081.27	W
	Add 1 % Water charges on “W”				10.81	
	TOTAL				1092.08	X
	Add GST on “X” (multiplying factor 0.2127)				232.29	
	TOTAL				1324.37	Y
	Add 15% CPOH on “Y”				198.66	
	TOTAL				1523.03	Z
	Add Cess @ 1% on “Z”				15.23	
	Cost of 1 Cum.				1538.26	
	Say				1538.25	

23.8 Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
7772	Pea Gravel including carriage	cum	1.00	1200.00	1200.00	
	LABOUR					
0114	Beldar	day	0.30	736.00	220.80	
9999	Sundries	L.S.	1.00	2.27	2.27	
	TOTAL				1423.07	W
	Add 1 % Water charges on “W”				14.23	
	TOTAL				1437.30	X
	Add GST on “X” (multiplying factor 0.2127)				305.71	
	TOTAL				1743.01	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				261.45	
	TOTAL				2004.46	Z
	Add Cess @ 1% on "Z"				20.04	
	Cost of 1 Cum.				2024.50	
	Say				2024.50	

23.9 Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No. RCC drain cover					
	MATERIAL					
7762	Precast R.C.C. perforated slab	each	1.00	950.00	950.00	
	LABOUR					
9988	Carriage and fixing charges	L.S.	15.00	2.27	34.05	
	TOTAL				984.05	W
	Add 1 % Water charges on "W"				9.84	
	TOTAL				993.89	X
	Add GST on "X" (multiplying factor 0.2127)				211.40	
	TOTAL				1205.29	Y
	Add 15% CPOH on "Y"				180.79	
	TOTAL				1386.08	Z
	Add Cess @ 1% on "Z"				13.86	
	Cost of 1 No.				1399.94	
	Say				1399.95	

23.10 Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.

23.10.1 100 mm nominal size dia having minimum wall thickness 5.00 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7757	M.S. pipe 100 mm dia casing pipe	metre	30.00	850.00	25500.00	
7764	M.S. socket 100 mm dia	each	5.00	140.00	700.00	
2343	Carriage of ductile iron pipes (k7) 100 mm dia	100 metre	0.30	0.00	0.00	
	including loading and unloading Painting with anti-corrosive Paint 3.14 x.0110x30.00=10.36 sqm.					
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing	sqm	10.36	140.25	1452.99	A
	LABOUR					
0114	Beldar	day	1.35	736.00	993.60	
0130	Mistry	day	0.50	897.00	448.50	
	TOTAL				29095.09	W
	Add 1 % Water charges on "W-A"				276.42	
	TOTAL				29371.51	X
	Add GST on "X-A" (multiplying factor 0.2127)				5938.27	
	TOTAL				35309.78	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				5078.52	
	TOTAL				40388.30	Z
	Add Cess @ 1% on "Z-A"				389.35	
	Cost for 30 metre				40777.65	
	Cost of 1 metre				1359.26	
	Say				1359.25	

23.10.2 150 mm nominal size dia having minimum wall thickness 5.00 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7743	M.S. pipe 150 mm dia casing pipe	metre	30.00	1250.00	37500.00	
7765	M.S. socket 150 mm dia	each	5.00	225.00	1125.00	
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.30	0.00	0.00	
	including loading and unloading Painting with Anticorrosive Paint 3.14 x0.160x30.00=15.07 sqm.					
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	15.07	140.25	2113.57	A
	LABOUR					
0114	Beldar	day	1.40	736.00	1030.40	
0130	Mistry	day	0.50	897.00	448.50	
	TOTAL				42217.47	W
	Add 1 % Water charges on "W-A"				401.04	
	TOTAL				42618.51	X
	Add GST on "X-A" (multiplying factor 0.2127)				8615.40	
	TOTAL				51233.91	Y
	Add 15% CPOH on "Y-A"				7368.05	
	TOTAL				58601.96	Z
	Add Cess @ 1% on "Z-A"				564.88	
	Cost for 30 metre				59166.84	
	Cost of 1 metre				1972.23	
	Say				1972.25	

23.10.3 200 mm nominal size dia having minimum wall thickness 5.40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7744	M.S. pipe 200 mm dia casing pipe	metre	30.00	1550.00	46500.00	
7766	M.S. socket 200 mm dia	each	5.00	300.00	1500.00	
2345	Carriage of cast iron pipes 200 mm dia	100 metre	0.30	0.00	0.00	
	including loading and unloading Painting with anticorrosive Paint 3.14 x0.210x30.00=20.25 sqm.					
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	20.25	140.25	2840.06	A
	LABOUR					
0114	Beldar	day	1.45	736.00	1067.20	
0130	Mistry	day	0.50	897.00	448.50	
	TOTAL				52355.76	W
	Add 1 % Water charges on "W-A"				495.16	
	TOTAL				52850.92	X
	Add GST on "X-A" (multiplying factor 0.2127)				10637.31	
	TOTAL				63488.23	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y-A"				9097.23	
	TOTAL				72585.46	Z
	Add Cess @ 1% on "Z-A"				697.45	
	Cost for 30 metre				73282.91	
	Cost of 1 metre				2442.76	
	Say				2442.75	

23.11 Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/3.2 mm) mild steel threaded and socketed/ plain bevel ended pipe (type A) of required dia, conforming to IS: 8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with outside surface with two coats of anticorrosive bitumestic paint of approved brand and manufacture, including hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer -in-charge.

23.11.1 100 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7757	M.S. pipe 100 mm dia casing pipe	metre	30.00	850.00	25500.00	
7764	M.S. socket 100 mm dia	each	5.00	140.00	700.00	
9999	Sundries	L.S.	906.04	2.27	2056.71	
2343	Carriage of ductile iron pipes (k7) 100 mm dia	100 metre	0.30	0.00	0.00	
	including loading and unloading Painting with anticorrosive Paint 3.14 x.11x30.00=10.36 sqm					
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	10.36	140.25	1452.99	A
	LABOUR					
0114	Beldar	day	1.35	736.00	993.60	
0130	Mistry	day	0.50	897.00	448.50	
	TOTAL				31151.80	W
	Add 1 % Water charges on "W-A"				296.99	
	TOTAL				31448.79	X
	Add GST on "X-A" (multiplying factor 0.2127)				6380.11	
	TOTAL				37828.90	Y
	Add 15% CPOH on "Y-A"				5456.39	
	TOTAL				43285.29	Z
	Add Cess @ 1% on "Z-A"				418.32	
	Cost for 30 metre				43703.61	
	Cost of 1 metre				1456.79	
	Say				1456.80	

23.11.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7743	M.S. pipe 150 mm dia casing pipe	metre	30.00	1250.00	37500.00	
7765	M.S. socket 150 mm dia	each	5.00	225.00	1125.00	
9999	Extra for making slots	L.S.	1208.05	2.27	2742.27	
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.30	0.00	0.00	
	including loading and unloading Painting with anticorrosive Paint 3.14 x.160x30.00=15.07 sqm.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	15.07	140.25	2113.57	A
	LABOUR					
0114	Beldar	day	1.40	736.00	1030.40	
0130	Mistry	day	0.50	897.00	448.50	
	TOTAL				44959.74	W
	Add 1 % Water charges on “W-A”				428.46	
	TOTAL				45388.20	X
	Add GST on “X-A” (multiplying factor 0.2127)				9204.51	
	TOTAL				54592.71	Y
	Add 15% CPOH on “Y-A”				7871.87	
	TOTAL				62464.58	Z
	Add Cess @ 1% on “Z-A”				603.51	
	Cost for 30 metre				63068.09	
	Cost of 1 metre				2102.27	
	Say				2102.25	

23.11.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7744	M.S. pipe 200 mm dia casing pipe	metre	30.00	1550.00	46500.00	
7766	M.S. socket 200 mm dia	each	5.00	300.00	1500.00	
9999	Extra for making slots	L.S.	1208.05	2.27	2742.27	
2345	Carriage of cast iron pipes 200 mm dia including loading and unloading Painting with anticorrosive Paint 3.14 x 0.210x30.00=20.25 sqm.	100 metre	0.30	0.00	0.00	
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	20.25	140.25	2840.06	A
	LABOUR					
0114	Beldar	day	1.40	736.00	1030.40	
0130	Mistry	day	0.50	897.00	448.50	
	TOTAL				55061.23	W
	Add 1 % Water charges on “W-A”				522.21	
	TOTAL				55583.44	X
	Add GST on “X-A” (multiplying factor 0.2127)				11218.52	
	TOTAL				66801.96	Y
	Add 15% CPOH on “Y-A”				9594.29	
	TOTAL				76396.25	Z
	Add Cess @ 1% on “Z-A”				735.56	
	Cost for 30 metre				77131.81	
	Cost of 1 metre				2571.06	
	Say				2571.05	

23.12 Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of useable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by “V” notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, including disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 8 Hours					
	MACHINERY :					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0040	Air compressor 250 cfm with two leads for pneumatic cutters/ hammers.	day	1.00	1800.00	1800.00	
	MATERIAL					
1235	Diesel oil	litre	48.00	89.62	4301.76	
	TOTAL				6101.76	W
	Add 1 % Water charges on “W”				61.02	
	TOTAL				6162.78	X
	Add GST on “X” (multiplying factor 0.2127)				1310.82	
	TOTAL				7473.60	Y
	Add 15% CPOH on “Y”				1121.04	
	TOTAL				8594.64	Z
	Add Cess @ 1% on “Z”				85.95	
	Cost of 8 Hours				8680.59	
	Cost of 1 Hour				1085.07	
	Say				1085.05	

23.13 Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:

23.13.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
	100mm dia MS screwed cap with locking arrangement					
7760	M.S. cap 100 mm dia	each	1.00	150.00	150.00	P
	Add 5% labour factor on P				7.50	
	TOTAL				157.50	W
	Add 1 % Water charges on “W”				1.58	
	TOTAL				159.08	X
	Add GST on “X” (multiplying factor 0.2127)				33.84	
	TOTAL				192.92	Y
	Add 15% CPOH on “Y”				28.94	
	TOTAL				221.86	Z
	Add Cess @ 1% on “Z”				2.22	
	Cost of 1 No				224.08	
	Say				224.10	

23.13.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
	150 mm dia MS screwed cap with locking arrangement					
7747	M.S. cap 150 mm dia	each	1.00	165.00	165.00	
	Add 5% labour facor on X				8.25	
	TOTAL				173.25	W
	Add 1 % Water charges on “W”				1.73	
	TOTAL				174.98	X
	Add GST on “X” (multiplying factor 0.2127)				37.22	
	TOTAL				212.20	Y
	Add 15% CPOH on “Y”				31.83	
	TOTAL				244.03	Z
	Add Cess @ 1% on “Z”				2.44	
	Cost of 1 No				246.47	
	Say				246.45	

23.13.3 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
	200 mm dia MS screwed cap with locking arrangement					
7748	M.S. cap 200 mm dia	each	1.00	215.00	215.00	
	Add 5% labour facor on X				10.75	
	TOTAL				225.75	W
	Add 1 % Water charges on “W”				2.26	
	TOTAL				228.01	X
	Add GST on “X” (multiplying factor 0.2127)				48.50	
	TOTAL				276.51	Y
	Add 15% CPOH on “Y”				41.48	
	TOTAL				317.99	Z
	Add Cess @ 1% on “Z”				3.18	
	Cost of 1 No				321.17	
	Say				321.15	

23.14 Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.

23.14.1 100 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
	Clamps made of MS flat of size 100x10mm thick1x2mt.x7.80 kg per mt.=15.60 kg.					
10.1	Rate as per Item No.10.1 of SH:Steel Work	kg	15.60	117.35	1830.66	A
9999	Sundries, nuts and bolts etc.	L.S.	25.00	2.27	56.75	
	TOTAL				1887.41	W
	Add 1 % Water charges on “W-A”				0.57	
	TOTAL				1887.98	X
	Add GST on “X-A” (multiplying factor 0.2127)				12.19	
	TOTAL				1900.17	Y
	Add 15% CPOH on “Y-A”				10.43	
	TOTAL				1910.60	Z
	Add Cess @ 1% on “Z-A”				0.80	
	Cost of 1 No				1911.40	
	Say				1911.40	

23.14.2 150 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
	Clamps made of MS flat of size 100x10mm thick1x2.10 mt.x7.80 kg per mt.=16.38 kg.					
10.1	Rate as per Item No.10.1 of SH:Steel Work	kg	16.38	117.35	1922.19	A
9999	Sundries, nuts and bolts etc.	L.S.	30.00	2.27	68.10	
	TOTAL				1990.29	W
	Add 1 % Water charges on “W-A”				0.68	
	TOTAL				1990.97	X
	Add GST on “X-A” (multiplying factor 0.2127)				14.63	
	TOTAL				2005.60	Y
	Add 15% CPOH on “Y-A”				12.51	
	TOTAL				2018.11	Z
	Add Cess @ 1% on “Z-A”				0.96	
	Cost of 1 No				2019.07	
	Say				2019.05	

23.14.3 200 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
	Clamps made of MS flat of size 100x10mm thick1x2.40 mt.x7.80 kg per mt.=18.72 kg.					
10.1	Rate as per Item No.10.1 of SH:Steel Work	kg	18.72	117.35	2196.79	A
9999	Sundries, nuts and bolts etc.	L.S.	30.00	2.27	68.10	
	TOTAL				2264.89	W
	Add 1 % Water charges on “W-A”				0.68	
	TOTAL				2265.57	X
	Add GST on “X-A” (multiplying factor 0.2127)				14.63	
	TOTAL				2280.20	Y
	Add 15% CPOH on “Y-A”				12.51	
	TOTAL				2292.71	Z
	Add Cess @ 1% on “Z-A”				0.96	
	Cost of 1 No				2293.67	
	Say				2293.65	

23.15 Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).

23.15.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
7761	M.S. bail plug 100 mm dia	each	1.00	175.00	175.00	
9999	Sundries	L.S.	5.00	2.27	11.35	
	TOTAL				186.35	W
	Add 1 % Water charges on “W”				1.86	
	TOTAL				188.21	X
	Add GST on “X” (multiplying factor 0.2127)				40.03	
	TOTAL				228.24	Y
	Add 15% CPOH on “Y”				34.24	
	TOTAL				262.48	Z
	Add Cess @ 1% on “Z”				2.62	
	Cost of 1 No				265.10	
	Say				265.10	

23.15.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
7749	M.S bail plug 150 mm dia	each	1.00	215.00	215.00	
9999	Sundries	L.S.	5.00	2.27	11.35	
	TOTAL				226.35	W
	Add 1 % Water charges on “W”				2.26	
	TOTAL				228.61	X
	Add GST on “X” (multiplying factor 0.2127)				48.63	
	TOTAL				277.24	Y
	Add 15% CPOH on “Y”				41.59	
	TOTAL				318.83	Z
	Add Cess @ 1% on “Z”				3.19	
	Cost of 1 No				322.02	
	Say				322.00	

23.15.3 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No					
	MATERIAL					
7750	M.S bail plug 200 mm dia	each	1.00	240.00	240.00	
9999	Sundries	L.S.	5.00	2.27	11.35	
	TOTAL				251.35	W
	Add 1 % Water charges on “W”				2.51	
	TOTAL				253.86	X
	Add GST on “X” (multiplying factor 0.2127)				54.00	
	TOTAL				307.86	Y
	Add 15% CPOH on “Y”				46.18	
	TOTAL				354.04	Z
	Add Cess @ 1% on “Z”				3.54	
	Cost of 1 No				357.58	
	Say				357.60	

SUB HEAD : 24.0

CONSERVATION OF HERITAGE BUILDINGS

24.1 Raking out joints of stone masonry surface to the required width and depth, with due care and precaution, by mechanical / manual means, including preparing and cleaning the surface for re-pointing/ refilling of joints, including disposal of rubbish to the dumping ground within 50 metre lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0114	Beldar	day	0.53	736.00	390.08	
0115	Coolie	day	0.08	736.00	58.88	
0101	Bhisti	day	0.07	816.00	57.12	
9999	Sundries	L.S.	1.43	2.27	3.25	
	TOTAL				509.33	W
	Add 1 % Water charges on “W”				5.09	
	TOTAL				514.42	X
	Add GST on “X” (multiplying factor 0.2127)				109.42	
	TOTAL				623.84	Y
	Add 15% CPOH on “Y”				93.58	
	TOTAL				717.42	Z
	Add Cess @ 1% on “Z”				7.17	
	Cost of 10.00 sqm				724.59	
	Cost of 1.00 sqm				72.46	
	Say				72.45	

24.2 Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/ structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge.

Note:- (1) The elevational area of the scaffolding shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for area 22.5x9.0=202.50 sqm					
	MATERIAL					
	Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost					
	Taking slvage value after full use of material @ 25% of cost					
7397	Base jack	each	0.30	155.00	46.50	
	Qty taken for cost of using once =14x0.85/40=0.2975					
4009	Mild steel tubes hot finished welded type	kilogram	80.02	72.00	5761.44	
	Vertical standard 2.5m length=7x2x9x2.5=315.00 m					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Side support 6.00m length=3x2x6.00=36.00m					
	Horizonatal support 3.00mlength=18x3x-3.00=162.00m					
	Total=1026.00m					
	@ 3.67 kg/m =3765.42 kgQty taken for					
	cost of using once= 3765.42x0.85/40=80.02kg					
7387	Spigot for standard jointing	kg	2.63	44.00	115.72	
	7x2x9=126 nos x 0.40m length = 50.40m @2.46kg /m=123.98kgQty taken for cost of using once= 123.98x0.85/40=2.63kg					
1034	Bolts and nuts upto 300 mm in length	quintal	0.008	5200.00	41.60	
	2x7x2x9=252 nos @ 0.15 kg each=37.80 kg =0.378qQty taken for cost of using once= 0.378x0.85/40=0.008q					
7346	Double coupler	each	2.55	49.00	124.95	
	Clamp coupler for fixing MS tube with scafolding 2x3x2+2x18x3=120 nosQty taken for cost of using once= 120x0.85/40=2.55 nos					
7398	Challies	each	1.91	834.00	1592.94	
	3 nos x 18 lines=54 nosTwo level plate challies=2x18 lines=36nosTotal=90 nos					
	Qty taken for cost of using once=90x0.85/40=1.9125 nos					
7399	Cup lock	each	27.92	50.00	1396.00	
	For Vertical standards=(5x7x2x9=630 nos) +(2x18x19=694 nos)Total=1314 nos					
	Qty taken for cost of using once= 1314x0.85/40=27.92					
2205	Carriage of Steel	tonne	6.054	0.00	0.00	
	40mm dia MS pipe=3765.42kg					
	25mm spigot=123.98kgNuts &					
	bolts=37.80kgclamp=120 nos@1.00kg					
	each=120.00kgChallies=90 nos @ 15.00kg					
	each=1350.00kgCup locks=1314 nos @					
	0.50kg each=					
	657.00kgTotal=6054.20kg=6.054 tonne					
	LABOUR					
0116	Fitter (grade 1)	day	15.50	897.00	13903.50	
0114	Beldar	day	31.00	736.00	22816.00	
9999	Sundries	L.S.	1035.00	2.27	2349.45	
	TOTAL				48148.10	W
	Add 1 % Water charges on “W”				481.48	
	TOTAL				48629.58	X
	Add GST on “X” (multiplying factor 0.2127)				10343.51	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				58973.09	Y
	Add 15% CPOH on "Y"				8845.96	
	TOTAL				67819.05	Z
	Add Cess @ 1% on "Z"				678.19	
	Cost of 202.50 sqm				68497.24	
	Cost of 1.00 sqm				338.26	
	Say				338.25	

24.3 Cleaning the sand stone surface and removing dirt, dust, bird dropping, grease, oil, algae, fungus, monkey beats, vegetable growth etc., including providing, applying and washing the surface with liquid Ammonia Chemical of 5% solution and other chemical cleaning agent as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with the help of required scrubbers and also cleaning with machine operated water jet mixed with desired quantity of fine silica where ever required, without causing any scratching/ damage to the stone surface and finally washing the surface with clean water with the help of pressure jet machine, complete in all respect, including taking all precautions to safeguard ventilators, windows, doors etc. by suitable covering so as to avoid any damage to the building/structure, all as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
7767	Stone cleaning chemical approved by ASI	litre	0.100	300.00	30.00	
	1 kg teepal of 3% solution for 10 sqm area					
	for 10sqm = 0.10 litre					
7771	Liquid Amonia 5%	litre	0.170	150.00	25.50	
	LABOUR (for applying the camical Salution)					
0103	Blacksmith 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.20	736.00	147.20	
0128	Mate	day	0.10	816.00	81.60	
9999	Cleaning T & P & its manitinance cost (Jet Pump, electrice cable, horse pipe, waler pipe, Nozel safety belt Rope & mantance cost and safety machine for window etc.)	L.S.	1.00	2.27	2.27	
6501	Sand zone V (Jamuna)	cum	0.028	1320.00	36.96	
	LABOUR (for pressure cleaning)					
0131	Painter	day	0.40	816.00	326.40	
0114	Beldar	day	0.80	736.00	588.80	
0128	Mate	day	0.10	816.00	81.60	
	TOTAL				1483.53	W
	Add 1 % Water charges on "W"				14.84	
	TOTAL				1498.37	X
	Add GST on "X" (multiplying factor 0.2127)				318.70	
	TOTAL				1817.07	Y
	Add 15% CPOH on "Y"				272.56	
	TOTAL				2089.63	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				20.90	
	Cost of 10.00 sqm				2110.53	
	Cost of 1.00 sqm				211.05	
	Say				211.05	

24.4 Providing and applying antifungal wash treatment using 3% solution of sodium pentachlorophenate, of reputed brand and manufacturer, on cleaned sand stone surface at desired locations as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
7775	Sodium pentachlorophenate	Kg	0.10	575.00	57.50	
	LABOUR					
0131	Painter	day	0.25	816.00	204.00	
0114	Beldar	day	0.25	736.00	184.00	
0128	Mate	day	0.125	816.00	102.00	
	TOTAL				547.50	W
	Add 1 % Water charges on "W"				5.48	
	TOTAL				552.98	X
	Add GST on "X" (multiplying factor 0.2127)				117.62	
	TOTAL				670.60	Y
	Add 15% CPOH on "Y"				100.59	
	TOTAL				771.19	Z
	Add Cess @ 1% on "Z"				7.71	
	Cost of 10.00 sqm				778.90	
	Cost of 1.00 sqm				77.89	
	Say				77.90	

24.5 Ruled / Flush pointing on Red sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime: 1.5 surkhi (50% red and 50% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
3.19	Rate as per Item No.3.19 of SH: Marble dust mortar 1:1.5:1/2	cum	0.023	2880.67	66.26	
	LABOUR					
0155	Mason (average)	day	0.92	857.00	788.44	
0115	Coolie	day	1.37	736.00	1008.32	
0101	Bhisti	day	0.93	816.00	758.88	
9999	Sundries	L.S.	4.03	2.27	9.15	
	TOTAL				2631.05	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1 % Water charges on “W”				26.31	
	TOTAL				2657.36	X
	Add GST on “X” (multiplying factor 0.2127)				565.22	
	TOTAL				3222.58	Y
	Add 15% CPOH on “Y”				483.39	
	TOTAL				3705.97	Z
	Add Cess @ 1% on “Z”				37.06	
	Cost of 10.00 sqm				3743.03	
	Cost of 1.00 sqm				374.30	
	Say				374.30	

24.6 Ruled/ Flush pointing on White sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime : 1.5 surkhi (15% dark red and 85% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
3.19	Rate as per Item No.3.19 of SH:Marble dust mortar 1:1.5:1/2	cum	0.023	2880.67	66.26	
	LABOUR					
0155	Mason (average)	day	0.92	857.00	788.44	
0115	Coolie	day	1.37	736.00	1008.32	
0101	Bhisti	day	0.93	816.00	758.88	
9999	Sundries	L.S.	4.03	2.27	9.15	
	TOTAL				2631.05	W
	Add 1 % Water charges on “W”				26.31	
	TOTAL				2657.36	X
	Add GST on “X” (multiplying factor 0.2127)				565.22	
	TOTAL				3222.58	Y
	Add 15% CPOH on “Y”				483.39	
	TOTAL				3705.97	Z
	Add Cess @ 1% on “Z”				37.06	
	Cost of 10.00 sqm				3743.03	
	Cost of 1.00 sqm				374.30	
	Say				374.30	

24.7 Applying two or more coat of Ethyl Silicate chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with brush or spray on the existing stone masonry surface till there is no further absorption of chemical by stone surface, including protecting the applied surface from direct sunlight by suitable means during application, all complete as per direction of the Engineer-in-Charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 5 sqm					
	MATERIAL					
7769	Stone surface strengthening chemical approved by ASI	litre	1.00	910.00	910.00	
	LABOUR					
0131	Painter	day	0.15	816.00	122.40	
0114	Beldar	day	0.15	736.00	110.40	
9999	Sundries	L.S.	6.00	2.27	13.62	
	TOTAL				1156.42	W
	Add 1 % Water charges on “W”				11.56	
	TOTAL				1167.98	X
	Add GST on “X” (multiplying factor 0.2127)				248.43	
	TOTAL				1416.41	Y
	Add 15% CPOH on “Y”				212.46	
	TOTAL				1628.87	Z
	Add Cess @ 1% on “Z”				16.29	
	Cost of 5.00 sqm				1645.16	
	Cost of 1.00 sqm				329.03	
	Say				329.05	

24.8 Applying breathable, non-reactive, antifungal, and water repellant Silane/Siloxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:12 (One part of approved chemical :12 Part of Turpentine oil), on the existing sand stone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-In-charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 45 sqm					
	MATERIAL					
7768	Water repallent chemical approved by ASI	litre	1.00	1190.00	1190.00	
7770	Turpentine oil	litre	12.00	60.00	720.00	
	LABOUR					
0131	Painter	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
9999	Handling / Transportation charges	L.S.	6.00	2.27	13.62	
	TOTAL				3475.62	W
	Add 1 % Water charges on “W”				34.76	
	TOTAL				3510.38	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				746.66	
	TOTAL				4257.04	Y
	Add 15% CPOH on “Y”				638.56	
	TOTAL				4895.60	Z
	Add Cess @ 1% on “Z”				48.96	
	Cost of 45.00 sqm				4944.56	
	Cost of 1.00 sqm				109.88	
	Say				109.90	

SUB HEAD : 25.0

STRUCTURAL GLAZING ALUMINIUM COMPOSITE PANEL

25.1 Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account). The weight of aluminium extruded section shall be taken for purpose of payment.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6.50 kg					
	Width of the unit 1.6 m					
	Height of the unit 4.2 m					
	Area of Single Unit 6.72 sqm					
	Total Area 6.72 sqm, No of Panels 1 no					
	Aluminium Weight per sqm = 6.50 Kg/m2					
	Vision Height 2.2 m					
	Add for cleats, sleeves, screws etc. @5% = 0.33 kg					
	Add wastage @ 5% = 0.34 kg					
	Total = 7.17 kg					
	Details of cost for 6.50 kg					
	MATERIALS					
7306	Aluminium T or L sections	kilogram	7.17	198.00	1419.66	
7392	Powder coating 50 microns on aluminium sections	kilogram	7.17	66.00	473.22	
	TOTAL				1892.88	W
	Add 1 % Water charges on “W”				18.93	
	TOTAL				1911.81	X
	Add GST on “X” (multiplying factor 0.2127)				406.64	
	TOTAL				2318.45	Y
	Add 15% CPOH on “Y”				347.77	
	TOTAL				2666.22	Z
	Add Cess @ 1% on “Z”				26.66	
	Cost for 6.5 kg				2692.88	
	Cost for 1 kg				414.29	
	Say				414.30	

25.2 Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:

(a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:

(b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimentional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/ structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.

(c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.

(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.

(e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer- in-Charge.

Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.

Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accreditated by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately.

The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NABL accredited lab or any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025

1. **Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr**
2. **Static Water Penetration Test. (50pa to 1500pa) as per ASTME- 331-09 testing method for a range up to 2000 ml.**
3. **Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml**
4. **Structural Performance Deflection and deformation by static air pressure test (1.5 times design wind pressure without any failure) as per ASTME-330-10 testing method for a range upto 50 mm**
5. **Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test, Tests to be conducted on site.**
6. **Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ml**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6.72 sqm Width of the unit 1.6 m Height of the unit 4.2 m Area of Single Unit 6.72 sqm Total Area 6.72 sqm, No of Panels 1 no Aluminium Weight per sqm = 6.50 Kg/sqm Vision Height 2.2 m					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Sparndrel Height 2.0 m					
	Details of cost for 6.72 sqm					
	MATERIALS					
2605	Structural sealant - 6 mm x 12 mm	metre	17.02	32.00	544.64	
2606	Spacer tape 6.4 mm thick x 6 mm wide	metre	20.11	22.00	442.42	
2607	Weather Sealant - Non Staining (600 ml)	each	1.96	338.00	662.48	
2608	Weather Sealant - Normal (300 ml)	each	2.55	104.00	265.20	
2609	MS Brackets/Aluminium Alloy Brackets	kg	9.78	107.00	1046.46	
2610	Silicon Gasket in Kg (Above 50 g / m)	kg	0.78	502.00	391.56	
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	0.70	163.00	114.10	
2612	Anchor Fastner - M10	each	2.00	12.00	24.00	
2613	SS Bolt with washer of sizes for structural glazing / ACP Cladding	each	2.00	39.00	78.00	
2630	Baker rod	metre	5.04	7.00	35.28	
2614	SS Screws of sizes for structural glazing /ACP Cladding	each	52.00	5.00	260.00	
2632	Fire Stop	metre	1.60	487.00	779.20	
2615	Protective Tape	metre	6.72	23.00	154.56	
2616	GI flashing - 1.2 mm Thick	kg	3.96	64.00	253.44	
8654	Masking tape	metre	6.72	2.00	13.44	
9999	Sundries	L.S.	225.50	2.27	511.89	
9999	Sundries (For Fabrication)	L.S.	1804.03	2.27	4095.15	
9999	Sundries (For Installation)	L.S.	1804.03	2.27	4095.15	
9999	Sundries (Transporation)	L.S.	451.00	2.27	1023.77	
9999	Sundries (Scaffolding / Loading / Unloading)	L.S.	573.00	2.27	1300.71	
9999	Sundries (Designing charges etc.)	L.S.	216.18	2.27	490.73	
	TOTAL				16582.18	W
	Add 1 % Water charges on “W”				165.82	
	TOTAL				16748.00	X
	Add GST on “X” (multiplying factor 0.2127)				3562.30	
	TOTAL				20310.30	Y
	Add 15% CPOH on “Y”				3046.55	
	TOTAL				23356.85	Z
	Add Cess @ 1% on “Z”				233.57	
	Cost for 6.72 sqm				23590.42	
	Cost for 1 sqm				3510.48	
	Say				3510.50	

25.3 Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthned clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor.

(Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.25.2)

For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.

(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6.72 sqm					
	Width of the unit 1.6 m					
	Height of the unit 4.2 m					
	Area of Single Unit 6.72 sqm					
	Total Area 6.72 sqm, No of Panels 1 no					
	Area of Glass deducting area of gap/grove 5% = 6.38 sqm					
	Vision Height 2.2 m					
	Wastage 10% = 0.638 sqm say 0.7 sqm					
	Net = 7.02 sqm					
	Details of cost for 6.72 sqm					
	MATERIALS					
2617	6 mm thick High performance glass	sqm	7.02	1056.00	7413.12	
2618	6 mm thick clear heat strengthened glass	sqm	7.02	679.00	4766.58	
9999	Sundries (for insurance Charges)	L.S.	126.27	2.27	286.63	
9999	Sundries (Fabrication charges including silicon sealant, baker rod, desecant etc.	L.S.	2120.13	2.27	4812.70	
9999	Transporation including loading and unloading	L.S.	126.27	2.27	286.63	
	TOTAL				17565.66	W
	Add 1 % Water charges on “W”				175.66	
	TOTAL				17741.32	X
	Add GST on “X” (multiplying factor 0.2127)				3773.58	
	TOTAL				21514.90	Y
	Add 15% CPOH on “Y”				3227.24	
	TOTAL				24742.14	Z
	Add Cess @ 1% on “Z”				247.42	
	Cost for 6.72 sqm				24989.56	
	Cost for 1 sqm				3718.68	
	Say				3718.70	

25.4 Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer- in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.76 sqm					
	Width of the unit 1.6 m					
	Shuttter Weight					
	Height of the unit 1.1 m					
	Outer glass 6 mm					
	Area 1.76 sqm					
	Inner glass 6 mm					
	Aluminium Weight per sqm 7.78 Kg					
	Al weight = 1.76x7.78 = 13.7 Kg					
	No of Locking Point 4 no Total 67 Kg					
	Wedge Block 1 no					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.76 sqm					
	MATERIALS					
2619	Extra for 6 mm thick clear heat strengthened glass	each	3.00	134.00	402.00	
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	0.80	163.00	130.40	
2614	SS Screws of sizes for structural glazing / ACP Cladding	each	49.00	5.00	245.00	
2615	Protective Tape	metre	1.76	23.00	40.48	
2620	ARMS GS HD -TOP HUNG -20"-TYPE P-COUPLE	pair	1.00	1416.00	1416.00	
2621	Connection Block	each	2.00	37.00	74.00	
2622	Curtain wall striker	each	4.00	89.00	356.00	
2623	Adjustable Fastening Pawl	each	4.00	37.00	148.00	
2624	Corner drive	each	2.00	267.00	534.00	
2625	Top wedge Block	each	1.00	124.00	124.00	
9999	Sundries	L.S.	118.00	2.27	267.86	
9999	Sundries (For Fabrication)	L.S.	354.36	2.27	804.40	
	TOTAL				4542.14	W
	Add 1 % Water charges on "W"				45.42	
	TOTAL				4587.56	X
	Add GST on "X" (multiplying factor 0.2127)				975.77	
	TOTAL				5563.33	Y
	Add 15% CPOH on "Y"				834.50	
	TOTAL				6397.83	Z
	Add Cess @ 1% on "Z"				63.98	
	Cost for 1.76 sqm				6461.81	
	Cost for 1 sqm				3671.48	
	Say				3671.50	

25.5 Providing, fabricating and supplying shadow box of required size and shape, for fixing in the spandrel portion of the structural glazing, in linear as well as curvilinear portions of the building by providing semi -rigid, inorganic, non-combustible fibre glass wool insulation 50 mm thick, conforming to IS: 8183 and BS: 3958 Part 5. The insulation layer shall have facing (factory bonded on surface # 1 of the fibre glass insulation layer), of black non-woven fibre glass tissue of nominal thickness 0.5 mm and nominal mass not less than 60 gm /sqm, made of randomly oriented glass fibres distributed in a binder by a wet-lay process including fixing 1.5 mm thick solid aluminum sheet backing using, 6 mm thick cement board including SS rivets, nuts, bolts, washers etc complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.23 sqm					
	Width of the unit = 0.86 m					
	Height of the unit = 3.75 m					
	Area = 3.23 sqm					
	Area including wastage @5 % = 3.39					
	Details of cost for 3.23 sqm					
	MATERIALS					
2626	Glass wool Denisity 48 Kg / m3 with Black Glass Tissue (BGT)	sqm	3.39	258.00	874.62	
2634	GI/Aluminium Sheet (0.8 mm thick)	kg	21.30	56.00	1192.80	
2627	SS Screws - # 8 x 19	each	32.00	8.00	256.00	
2628	Weather Sealant - DC 789	cartridge	2.00	127.00	254.00	
2629	Cement Board	sqm	3.39	251.00	850.89	
9999	Sundries with clips & adhesives	L.S.	308.50	2.27	700.30	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries (For Fabrication)	L.S.	170.64	2.27	387.35	
9999	Sundries (For Installation)	L.S.	170.64	2.27	387.35	
	TOTAL				4903.31	W
	Add 1 % Water charges on “W”				49.03	
	TOTAL				4952.34	X
	Add GST on “X” (multiplying factor 0.2127)				1053.36	
	TOTAL				6005.70	Y
	Add 15% CPOH on “Y”				900.86	
	TOTAL				6906.56	Z
	Add Cess @ 1% on “Z”				69.07	
	Cost for 3.23 sqm				6975.63	
	Cost for 1 sqm				2159.64	
	Say				2159.65	

25.6 Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer-in- Charge.

For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevent Item*).“(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.23 sqm					
	Width of the unit = 0.86 m					
	Height of the unit = 3.75 m					
	Area = 3.23 sqm					
	Area i/c wastage @ 5 % = 3.39 sqm					
	Details of cost for 3.23 sqm					
	MATERIALS					
2617	6 mm thick High performance glass	sqm	3.39	1056.00	3579.84	
9999	Sundries (Insurance charges)	L.S.	43.46	2.27	98.65	
9999	Sundries (Fabrication charges including silicon sealant, baker rod, desecant etc.)	L.S.	682.55	2.27	1549.39	
9999	Sundries (transporation including loading & unloading)	L.S.	147.59	2.27	335.03	
	TOTAL				5562.91	W
	Add 1 % Water charges on “W”				55.63	
	TOTAL				5618.54	X
	Add GST on “X” (multiplying factor 0.2127)				1195.06	
	TOTAL				6813.60	Y
	Add 15% CPOH on “Y”				1022.04	
	TOTAL				7835.64	Z
	Add Cess @ 1% on “Z”				78.36	
	Cost for 3.23 sqm				7914.00	
	Cost for 1 sqm				2450.15	
	Say				2450.15	

25.8 Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/ beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof.

The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 35.28 Sqm Description WD HT Nos Area (Sqm) Facade Area 7.00 5.04 1.00 35.28 Fin Area 0.40 2.30 5.00 4.60 (A) Spider Fitting					
8945	4 Point spider fittings of SS-316 grade with fin but without flat head bolt(c/c routel distance 200mm)	each	5.00	3650.00	18250.00	
8946	2 Point wall mounted spider fitting of SS- 316 grade without flat head bolt and anchor fastener (c/c routel distance 200mm)	each	2.00	1825.00	3650.00	
8947	1 Point wall mounted spider fitting of SS-316 grade without flat head bolt and anchor fastener (c/c routel distance 200mm)	each	12.00	1430.00	17160.00	
8948	Flate head bolt	Nos	36.00	716.00	25776.00	
8949	400 mm long fin plate without fastners	pair	5.00	6524.00	32620.00	
	(B) Local Hardware					
2612	Anchor Fastner - M10 For one point spider fitting =12x2=24 nos For two point spider fitting =2x2=4 nos For 400mm fin plates =5x6=30 nosTotal=58 nos	each	58.00	12.00	696.00	
8560	Non staining water resistant Clear silicon filling in gap Vr. joints between glasses = 7x5.04=35.28 m Hr.joints between glass & wall = 2x7.00=14.00 mTotal=49.28 m	metre	49.28	80.00	3942.40	
8559	Stainless steel U Channel of size (50x25x-2mm)	metre	7.00	176.00	1232.00	
9999	Sundries(Baker Road, Screw &Accessories)	L.S.	1000.00	2.27	2270.00	
9999	Labour	L.S.	10000.00	2.27	22700.00	
9999	Scaffolding	L.S.	2600.00	2.27	5902.00	
	(C) Glass Area					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8778	Toughened glass 12 mm thickness with hole =7.00x5.04=35.28 sqm + 1.76 sqm (Add 5% Wastage)Total = 37.04 sqm	sqm	37.04	1925.00	71302.00	
2415	21mm thick clear toughened Laminated glass for fins with holes = 5x2.30x.40=4.60sqm + 0.23sqm (Add 5% Wastage)Total = 4.83 sqm	sqm	4.83	6242.00	30148.86	
	TOTAL				235649.26	W
	Add 1 % Water charges on “W”				2356.49	
	TOTAL				238005.75	X
	Add GST on “X” (multiplying factor 0.2127)				50623.82	
	TOTAL				288629.57	Y
	Add 15% CPOH on “Y”				43294.44	
	TOTAL				331924.01	Z
	Add Cess @ 1% on “Z”				3319.24	
	Cost of 35.28 sqm				335243.25	
	Cost of 1 sqm				9502.36	
	Say				9502.35	

SUB HEAD : 26.0

NEW TECHNOLOGIES AND MATERIALS

26.1 **Providing & fixing in position Phenol bonded Bamboowood flooring with planks of sizes 14mm thick, minimum 1800mm length and minimum 100 mm wide, in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The flooring shall be fixed with tongue and groove interlocking system, with underlayment of 4mm thick expanded polyethylene foam sheets having density 40kg/cum, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and door reducer of size 1900mm x 44mm, wherever required. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m x 10m = 100 sqm					
	MATERIAL					
8021	Bamboo wood Tile Flooring 14mm thick, minimum 1800 mm length and 100 mm wide 100 + 10 (Add for wastage @10%) = 110 sqm	sqm	110.00	3790.50	416955.00	
8022	Bamboo wood Quarter Round 18mm thick of size 1900mm x 18mm	metre	39.90	128.25	5117.18	
8023	Bamboo wood door reducer 14mm thick of size 1900mm x 44mm	metre	2.00	289.75	579.50	
8015	Expanded polyethylene Foam sheet 4mm thick of Density 40kg/m3 100 + 5 (Add for wastage @5%) = 105 sqm	sqm	105.00	22.00	2310.00	
1246	Silicon based Joint Sealant for Tiles	kg	5.00	160.00	800.00	
1247	Rubber base Adhesive	kg	5.00	223.00	1115.00	
	LABOUR					
0111	Carpenter 1st class	day	3.00	897.00	2691.00	
0114	Beldar	day	3.00	736.00	2208.00	
9999	Sundries	L.S.	100.00	2.27	227.00	
	TOTAL				432002.68	W
	Add 1 % Water charges on “W”				4320.03	
	TOTAL				436322.71	X
	Add GST on “X” (multiplying factor 0.2127)				92805.84	
	TOTAL				529128.55	Y
	Add 15% CPOH on “Y”				79369.28	
	TOTAL				608497.83	Z
	Add Cess @ 1% on “Z”				6084.98	
	Cost of 100 sqm				614582.81	
	Cost of 1 sqm				6145.83	
	Say				6145.85	

26.2 **Providing & fixing in position Phenol bonded Bamboo wood in wall skirting with planks of sizes 14mm thick, 1900mm length (minimum) and 85mm wide(minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The skirting shall be fixed with SS screws & rawl plugs, over underlayment of 4mm thick, expanded polyethylene foam sheets having 40kg/cum density over prepared surface. The bamboowood planks shall have minimum density of 1000Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm skirting					
	MATERIAL					
8024	Bamboo wood Skirting 14mm thick of Size 1900mm x 85mm	metre	120.59	327.75	39523.37	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Area of 1 length skirting is 1.9 m x 0.085 m = 0.162 sqm Quantity required for 10 sqm = 10 / 0.1615 = 61.92 pieces Add 2.5% wastage= 1.548 Total = 61.92 + 1.548 = 63.468 Qty in running mtr = 63.468 x1.9m = 120.59 running meter					
8015	High Density Expanded poly ethylene Foam sheet 4mm thick of Density 40kg/m3 10 + 0.5 (Add for wastage @5%) = 10.5 sqm	sqm	10.50	22.00	231.00	
8210	Stainless steel screws 50 mm (62x3=186 nos)	100 Nos	1.86	320.00	595.20	
1246	Silicon based Joint Sealant for Tiles	kg	1.00	160.00	160.00	
1247	Rubber base Adhesive	kg	1.00	223.00	223.00	
	LABOUR					
0111	Carpenter 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	1.00	736.00	736.00	
9999	Sundries	L.S.	20.00	2.27	45.40	
	TOTAL				42410.97	W
	Add 1 % Water charges on “W”				424.11	
	TOTAL				42835.08	X
	Add GST on “X” (multiplying factor 0.2127)				9111.02	
	TOTAL				51946.10	Y
	Add 15% CPOH on “Y”				7791.92	
	TOTAL				59738.02	Z
	Add Cess @ 1% on “Z”				597.38	
	Cost of 10 sqm				60335.40	
	Cost of 1 sqm				6033.54	
	Say				6033.55	

26.3 **Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, minimum 1800mm length and minimum 100 mm wide, in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC), with necesasary profiled edges fixed with 40mm SS screws 5 nos in each tile to frame work made of second class teak wood of size 20x15 mm in centre of each tile and bottom and top of work height, 40x15mm placed at ends of each tile. The cladding shall be laid over backlayment of 1.00 mm thick expanded polyethylene foam of density 40kg/cum in two layers, first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m x 9.5m = 95 sqm					
	MATERIAL					
8025	Bamboo wood Tile Wall Cladding 10mm thick, minimum 1800 mm length and minimum 100 mm wide 10 x 9.5 = 95 + 9.5 (Add for wastage @10%) = 104.5 sqm	sqm	104.500	3562.50	372281.25	
8026	Bamboo wood T-mold 14mm thick of size 1900mm x 44mm	metre	41.620	275.50	11466.31	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	At end joints of planks = 4x9.91 = 39.64 mtr + 1.98 (Add for wastage 5%) = 41.62 mtr					
8027	Bamboo wood Threshold 14mm thick of size 1900mm x 44mm At perriferi of cladding = 2x(10+9.5)+1.95 (Add for wastage @5%) =40.95 metre	metre	40.950	275.50	11281.73	
8016	High Density expanded poly ethylene (EPE) Foam 1mm thick (2x10x9.5) = 190 + 9.5 (Add for wastage @5%)=199.5 sqm	sqm	199.500	12.00	2394.00	
8210	Stainless steel screws 50 mm @500mm c/c at teak wood frame	100 Nos	2.580	320.00	825.60	
8212	Stainless steel screws 30 mm (5nos in each panels) No of panels=95/(1.9 x 0.135)=370 nos No. of screws= 370 x 5=1850 nos	100 Nos	18.500	255.00	4717.50	
1190	Second class teak wood in planks 10 metre height, at every 1.9 metre height one length of 10 metre i.e (5x9.91x0.02x 0.015+2x10x0.02x.015+2x-9.50x.02x.015+4x9.91x0.04x0.015)+wastage @5% =0.05287 cum= 52.87 cudm	10 cudm	5.287	791.00	4182.02	
	LABOUR					
0111	Carpenter 1st class	day	5.000	897.00	4485.00	
0112	Carpenter 2nd class	day	5.000	816.00	4080.00	
0114	Beldar	day	5.000	736.00	3680.00	
9999	Sundries	L.S.	100.000	2.27	227.00	
	TOTAL				419620.41	W
	Add 1 % Water charges on “W”				4196.20	
	TOTAL				423816.61	X
	Add GST on “X” (multiplying factor 0.2127)				90145.79	
	TOTAL				513962.40	Y
	Add 15% CPOH on “Y”				77094.36	
	TOTAL				591056.76	Z
	Add Cess @ 1% on “Z”				5910.57	
	Cost of 95 sqm				596967.33	
	Cost of 1 sqm				6283.87	
	Say				6283.85	

26.4 Providing & fixing in position Phenol bonded Bamboowood panelled or panelled and glazed shutters for doors windows, clerestorey windows with pre-molded minimum 30mm thick planks, in approved colours, texture & finish. It shall have 10mm wide, 25mm deep grove to fit in panels.The bamboo wood shall have minimum density of 1000 Kg/cum, minimum Hardness 1000 Kgf. All styles and rails shall have profiled interlocking system locked in place by bamboo pins, all complete as per direction of Engineer in charge. (The panelling will be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for shutters of Bamboowood 200 x 108cm = 2.16 sqm					
	MATERIAL					
8028	Bamboo wood shutter of doors Styles 4x2.00x0.115x0.03 =0.0276 cum + Top rails 1x1.08x0.11x0.03m = 0.0036 cum +	10 cudm	4.83	2018.75	9750.56	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Bottom rails 1x1.08x0.212x0.03 = 0.0069 cum + Lock rails 1x1.08x0.18x0.03 = 0.0058 cum Total =0.0439 cum + 0.004 cum (Wastage @5%) Grand Total =0.0483 cum OR 48.30 cudm					
8215	Stainless steel butt hinges 125x64x1.9 mm IS : 12817 marked	10 Nos	0.40	388.00	155.20	
8211	Stainless steel screws 40 mm	100 Nos	0.32	270.00	86.40	
	LABOUR					
0156	Carpenter (average)	day	0.33	857.00	282.81	
0114	Beldar	day	0.33	736.00	242.88	
9999	Sundries T&P etc.	L.S.	5.62	2.27	12.76	
	TOTAL				10530.61	W
	Add 1 % Water charges on “W”				105.31	
	TOTAL				10635.92	X
	Add GST on “X” (multiplying factor 0.2127)				2262.26	
	TOTAL				12898.18	Y
	Add 15% CPOH on “Y”				1934.73	
	TOTAL				14832.91	Z
	Add Cess @ 1% on “Z”				148.33	
	Cost of 2.16 sqm				14981.24	
	Cost of 1 sqm				6935.76	
	Say				6935.75	

26.5 Providing & fixing in position Phenol bonded Bamboo wood panelling of 10mm thick, in 25 to 40 mm thick panelled or panelled & glazed shutters for doors, windows, clerestorey windows, in approved colour, texture & finish. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. The panels shall have profiled interlocking system locked in place with bamboo pins all complete as per direction of the Engineer in-charge. (area of opening for panel inserts excluding portion inside grooves or rebates to be measured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for shutters of a door with 2/3rd panelling… 200 x 108 cm = 2.16 sqm Panel area = 4x45.1x36.55cm = 0.66 sqm					
	MATERIAL					
8029	Bamboo wood panelling (10mm thick) 4x47.2x38.65x1.0cm = 0.0073cum + 0.0007 sqm (Add Wastage @10%) Total = 0.008 cum OR 8 cudm	10 cudm	0.80	2018.75	1615.00	
	LABOUR					
0156	Carpenter (average)	day	0.57	857.00	488.49	
9999	Sundries	L.S.	4.42	2.27	10.03	
	TOTAL				2113.52	W
	Add 1 % Water charges on “W”				21.14	
	TOTAL				2134.66	X
	Add GST on “X” (multiplying factor 0.2127)				454.04	
	TOTAL				2588.70	Y
	Add 15% CPOH on “Y”				388.31	
	TOTAL				2977.01	Z
	Add Cess @ 1% on “Z”				29.77	
	Cost of 0.66 sqm				3006.78	
	Cost of 1 sqm				4555.73	
	Say				4555.75	

26.6 Providing & fixing in position 65 mm thick factory made door frame of Phenol bonded Bamboo wood (superior class, interior use), in approved colour, texture and finish.The bamboo wood shall have minimum density of 1000 Kg/cum, minimum hardness 1000 Kgf. The door frame shall have tenon & mortise interlocking system, to be fixed to the wall with 100 mm size G.I screws all a complete as per direction of Engineer-in charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 33 cudm					
	MATERIAL					
8030	Superior class Bamboo wood door frame 65 mm thick 2x206.75x9.5x6.5 cm = 0.0255 cum + 1x117.50x9.5x6.5 cm = 0.0072 cum Total = 0.033 cum = 33 cudm + 0.001 cum (Add for wastage @ 5%) Grand total = 0.034 cum = 34 Cudm	10 cudm	3.40	2018.75	6863.75	
	LABOUR					
0111	Carpenter 1st class	day	0.72	897.00	645.84	
0114	Beldar	day	0.07	736.00	51.52	
	TOTAL				7561.11	W
	Add 1 % Water charges on “W”				75.61	
	TOTAL				7636.72	X
	Add GST on “X” (multiplying factor 0.2127)				1624.33	
	TOTAL				9261.05	Y
	Add 15% CPOH on “Y”				1389.16	
	TOTAL				10650.21	Z
	Add Cess @ 1% on “Z”				106.50	
	Cost of 33 cudm				10756.71	
	Cost of 1 cudm				325.96	
	Say				325.95	

26.6A Providing, erecting, laying and fixing in position in 3.5 to 4 mm thick bamboo mat corrugated sheet (BMCS) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 181.30sqm area. Consider a sheet of 18mx9m (external dimension of plinth). Area of roof = 18.5x9.8m = 181.30 sqm. MATERIAL: Sheets used = 2x 19 nos (2.44m x 1.05m) & 4x19 nos (1.83mx 1.05m). Total area = (2x19x2.44x1.05)+(4x19x1.83x1.05) = 243.39sqm, Add wastage @ 3% = 7.30 sqm, Total area = 250.69 sqm.					
8144	Bamboo Mat corrugated sheets 3.5 to 4mm thick conforming to IS 15476:2004 Weight of sheets, For 2.44mx1.05m sheet size, 12kg/Nos x 38 nos = 456 kgs, For 1.83m x 1.05m sheet size, 9kgs/Nos x 76 Nos = 684 kgs. Total weight of sheet = 456+684 = 1140 kgs = 1.14 tonne	sqm	250.69	2891.00	724744.79	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2358	Carriage of Bamboo Mat corrugated sheets and accessories	tonne	1.14	17700.00	20178.00	
1023	Galvanized steel J or L hooks 8mm dia	10 Nos	68.40	130.00	8892.00	
1208	Bitumen washer	100 Nos	6.84	30.00	205.20	
1209	G.I. plain washer thick	100 Nos	6.84	35.00	239.40	
9977	Carriage of bolts and washers	L.S.	11.58	2.27	26.29	
9999	Sundries	L.S.	56.78	2.27	128.89	
	LABOUR:					
0130	Mistry	day	3.00	897.00	2691.00	
0112	Carpenter 2nd class	day	3.00	816.00	2448.00	
0114	Beldar	day	9.00	736.00	6624.00	
	TOTAL				766177.57	W
	Add 1 % Water charges on “W”				7661.78	
	TOTAL				773839.35	X
	Add GST on “X” (multiplying factor 0.2127)				164595.63	
	TOTAL				938434.98	Y
	Add 15% CPOH on “Y”				140765.25	
	TOTAL				1079200.23	Z
	Add Cess @ 1% on “Z”				10792.00	
	Cost of 181.30 sqm				1089992.23	
	Cost of 1sqm				6012.09	
	Say				6012.10	

26.6B Providing and fixing in position ridges of 3.5 to 4 mm thick bamboo mat ridge cap (BMRC) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for length of ridge 18.50 metre (pair of 43cm width each)					
	Consider a shed of 18mx9m (external dimensions of plinth). Length of ridge 18.50 metre.					
	MATERIAL:					
	Ridges (Male & female) of size: 1.05m length required = 20 sets x 1.05m = 21.00 metre, Add wastage @ 5% = 1.05 metre, Total length = 22.05 metre.					
8145	Bamboo Mat Ridge cap 3.5 to 4mm thick conforming to IS 15476:2004	metre	22.05	2810.00	61960.50	
9977	Carriage (The ridges to be fixed with the same hooks as the sheets)	L.S.	19.43	2.27	44.11	
9999	Sundries	L.S.	9.71	2.27	22.04	
	LABOUR:					
0130	Mistry	day	0.20	897.00	179.40	
0112	Carpenter 2nd class	day	0.20	816.00	163.20	
0114	Beldar	day	0.60	736.00	441.60	
	TOTAL				62810.85	W
	Add 1 % Water charges on “W”				628.11	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				63438.96	X
	Add GST on "X" (multiplying factor 0.2127)				13493.47	
	TOTAL				76932.43	Y
	Add 15% CPOH on "Y"				11539.86	
	TOTAL				88472.29	Z
	Add Cess @ 1% on "Z"				884.72	
	Cost of 18.50 metre				89357.01	
	Cost of 1 metre				4830.11	
	Say				4830.10	

26.6C Providing and fixing at all height false ceiling of 4 mm thick phenol bonded Bamboo Mat board (595x595 mm) conforming to IS:13958-1994 including providing and fixing of frame work made of GI angle 25x25x0.4 mm thick all around suitably fixed to wall with the help of dash fastener and hanger frame (600x600 mm c/c) made GI slotted Tee having powder coating on bottom side (30x25x0.3 mm thick for main member & 25x25x0.3 mm for cross member) connected to ceiling with 2.64 mm GI wire and anchor fastener at every junction and also including cost of making openings for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm. Ceiling area = 100sqm, Add wastage @ 5% = 5sqm, Total area = 105 sqm					
	MATERIAL:					
8147	4mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: (0.595x0.595m of Bamboo board). Total number of board = 297. Total weight of Bamboo board = 297 Nos x 1.31kgs/Nos = 389.07 kgs = 0.39 tonne.	sqm	105.00	1950.00	204750.00	
2358	Carriage of 4mm thick Bamboo mat board and accessories.	tonne	0.39	17700.00	6903.00	
8570	GI Main T ceiling section 30x25x0.3 mm (3 metre long) including of wastage of 10%	each	29.50	240.00	7080.00	
8571	GI Perimeter wall angle 25x25x0.4 mm (3 metre long) including of wastage of 10%	each	13.50	200.00	2700.00	
8572	GI Intermediate cross T section 25x25x0.3 mm (1.2 metre long) including of wastage of 10% on grid cutouts.	each	147.00	90.00	13230.00	
8573	GI Intermediate cross T section 25x25x0.3 mm (0.6 metre long) including of wastage of 10% on grid cutouts.	each	147.00	45.00	6615.00	
8615	Hanger rod 4mm thick	each	72.00	11.00	792.00	
8616	Adjustment clip 85x30x0.8mm	each	72.00	7.00	504.00	
7015	Soffit cleat (size 27x37x25x1.60mm)	each	72.00	3.00	216.00	
7388	Dash hold fasteners 12.5mm dia, 50mm long with 6mm dia bolts	each	72.00	10.00	720.00	
9977	Carriage of grid materials	L.S.	89.28	2.27	202.67	
9999	Sundries	L.S.	187.95	2.27	426.65	
	LABOUR:					
0112	Carpenter 2nd class	day	28.00	816.00	22848.00	
0114	Beldar	day	23.00	736.00	16928.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				283915.32	W
	Add 1 % Water charges on “W”				2839.15	
	TOTAL				286754.47	X
	Add GST on “X” (multiplying factor 0.2127)				60992.68	
	TOTAL				347747.15	Y
	Add 15% CPOH on “Y”				52162.07	
	TOTAL				399909.22	Z
	Add Cess @ 1% on “Z”				3999.09	
	Cost of 100 sqm				403908.31	
	Cost of 1sqm				4039.08	
	Say				4039.10	

26.6D Providing and fixing at Bamboo Mat board conforming to IS:13958-1994 for partition to frame by bucking or studding with screws etc. complete (Frames, backing or studding to be paid separately)

26.6D.1 3mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.5mx2m = 7.0 sqm					
	Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm					
	MATERIAL:					
8146	3mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	7.35	1713.00	12590.55	
	Weight: 7.35sqm x 2.70 kgs/sqm =19.845 kgs = 0.02 tonne.					
2358	Carriage of 3mm thick Bamboo mat board and accessories.	tonne	0.02	17700.00	354.00	
9999	Sundries and screws	L.S.	26.91	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				14476.04	W
	Add 1 % Water charges on “W”				144.76	
	TOTAL				14620.80	X
	Add GST on “X” (multiplying factor 0.2127)				3109.84	
	TOTAL				17730.64	Y
	Add 15% CPOH on “Y”				2659.60	
	TOTAL				20390.24	Z
	Add Cess @ 1% on “Z”				203.90	
	Cost of 7 sqm				20594.14	
	Cost of 1sqm				2942.02	
	Say				2942.00	

26.6D.2 4mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL:					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8147	4mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 3.70 kgs/sqm =27.195 kgs = 0.03 tonne.	sqm	7.35	1950.00	14332.50	
2358	Carriage of 4mm thick Bamboo mat board and accessories.	tonne	0.03	17700.00	531.00	
9999	Sundries and screws	L.S.	26.91	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				16394.99	W
	Add 1 % Water charges on “W”				163.95	
	TOTAL				16558.94	X
	Add GST on “X” (multiplying factor 0.2127)				3522.09	
	TOTAL				20081.03	Y
	Add 15% CPOH on “Y”				3012.15	
	TOTAL				23093.18	Z
	Add Cess @ 1% on “Z”				230.93	
	Cost of 7 sqm				23324.11	
	Cost of 1sqm				3332.02	
	Say				3332.00	

26.6D.3 6mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.5mx2m = 7.0 sqm					
	Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm					
	MATERIAL:					
8148	6mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 5.40 kgs/sqm =39.69 kgs = 0.04 tonne.	sqm	7.35	2322.00	17066.70	
2358	Carriage of 6mm thick Bamboo mat board and accessories.	tonne	0.04	17700.00	708.00	
9999	Sundries and screws	L.S.	26.91	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				19306.19	W
	Add 1 % Water charges on “W”				193.06	
	TOTAL				19499.25	X
	Add GST on “X” (multiplying factor 0.2127)				4147.49	
	TOTAL				23646.74	Y
	Add 15% CPOH on “Y”				3547.01	
	TOTAL				27193.75	Z
	Add Cess @ 1% on “Z”				271.94	
	Cost of 7 sqm				27465.69	
	Cost of 1sqm				3923.67	
	Say				3923.65	

26.6D.4 9mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm					
	MATERIAL:					
8149	9mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 8.40 kgs/sqm =61.74 kgs = 0.06 tonne.	sqm	7.35	2932.00	21550.20	
2358	Carriage of 9mm thick Bamboo mat board and accessories.	tonne	0.06	17700.00	1062.00	
9999	Sundries and screws	L.S.	26.91	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				24143.69	W
	Add 1 % Water charges on “W”				241.44	
	TOTAL				24385.13	X
	Add GST on “X” (multiplying factor 0.2127)				5186.72	
	TOTAL				29571.85	Y
	Add 15% CPOH on “Y”				4435.78	
	TOTAL				34007.63	Z
	Add Cess @ 1% on “Z”				340.08	
	Cost of 7 sqm				34347.71	
	Cost of 1sqm				4906.82	
	Say				4906.80	

26.6D.5 12mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm					
	MATERIAL:					
8150	12mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 10.00 kgs/sqm =73.50 kgs = 0.07 tonne.	sqm	7.35	3373.00	24791.55	
2358	Carriage of 12mm thick Bamboo mat board and accessories.	tonne	0.07	17700.00	1239.00	
9999	Sundries and screws	L.S.	26.91	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	0.90	816.00	734.40	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				27562.04	W
	Add 1 % Water charges on “W”				275.62	
	TOTAL				27837.66	X
	Add GST on “X” (multiplying factor 0.2127)				5921.07	
	TOTAL				33758.73	Y
	Add 15% CPOH on “Y”				5063.81	
	TOTAL				38822.54	Z
	Add Cess @ 1% on “Z”				388.23	
	Cost of 7 sqm				39210.77	
	Cost of 1sqm				5601.54	
	Say				5601.55	

26.6E Providing and fixing at all height wall panelling with phenol bonded Bamboo Mat board conforming to IS:13958-1994 including providing and fixing to frame work made of 50mm x 50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good the wall etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws all complete as per direction of Engineer-in-Charge.

26.6E.1 9mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for panelling area of 5mx4m = 20.00 sqm with moulding length of 18.00 metre Wall panelling area = 20.00sqm, Add wastage @ 5% = 1.0sqm, Total area = 21.00 sqm MATERIAL:					
8149	9mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 21sqm x 8.40 kgs/sqm =176.4 kgs = 0.18 tonne.	sqm	21.000	2932.00	61572.00	
2358	Carriage of 9mm thick Bamboo mat board and accessories.	tonne	0.180	17700.00	3186.00	
1316	50mmx50mm hardwood plug	each	45.000	48.00	2160.00	
1190	Second class teak wood in planks	10 cudm	2.477	791.00	1959.31	
2204	Carriage of timber	cum	0.025	0.00	0.00	
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.700	62.00	43.40	
9999	Sundries	L.S.	26.910	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	2.000	816.00	1632.00	
0114	Beldar	day	2.000	736.00	1472.00	
	TOTAL				72085.80	W
	Add 1 % Water charges on “W”				720.86	
	TOTAL				72806.66	X
	Add GST on “X” (multiplying factor 0.2127)				15485.98	
	TOTAL				88292.64	Y
	Add 15% CPOH on “Y”				13243.90	
	TOTAL				101536.54	Z
	Add Cess @ 1% on “Z”				1015.37	
	Cost of 20 sqm				102551.91	
	Cost of 1sqm				5127.60	
	Say				5127.60	

26.6E.2 12mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for panelling area of 5mx4m = 20.00 sqm with moulding length of 18.00 metre Wall panelling area = 20.00sqm, Add wastage @ 5% = 1.0sqm, Total area = 21.00 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL:					
8150	12mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 21sqm x 10 kgs/sqm =210 kgs = 0.21 tonne.	sqm	21.000	3373.00	70833.00	
2358	Carriage of 12mm thick Bamboo mat board and accessories.	tonne	0.210	17700.00	3717.00	
1316	50mmx50mm hardwood plug	each	45.000	48.00	2160.00	
1190	Second class teak wood in planks	10 cudm	2.477	791.00	1959.31	
2204	Carriage of timber	cum	0.025	0.00	0.00	
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.700	62.00	43.40	
9999	Sundries	L.S.	26.910	2.27	61.09	
	LABOUR:					
0112	Carpenter 2nd class	day	2.000	816.00	1632.00	
0114	Beldar	day	2.000	736.00	1472.00	
	TOTAL				81877.80	W
	Add 1 % Water charges on “W”				818.78	
	TOTAL				82696.58	X
	Add GST on “X” (multiplying factor 0.2127)				17589.56	
	TOTAL				100286.14	Y
	Add 15% CPOH on “Y”				15042.92	
	TOTAL				115329.06	Z
	Add Cess @ 1% on “Z”				1153.29	
	Cost of 20 sqm				116482.35	
	Cost of 1sqm				5824.12	
	Say				5824.10	

26.7 Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size between cavity wall, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/m³ as per ASTM D 1622, water absorptions ≤ 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
8561	Extruded polystyrene rigid insulation board 50 mm thick including 2% wastage	sqm	10.20	610.00	6222.00	
	LABOUR					
0111	Carpenter 1st class	day	0.25	897.00	224.25	
0128	Mate	day	0.25	816.00	204.00	
0114	Beldar	day	0.25	736.00	184.00	
9999	Sundries (Water based adhesive, fasteners, scaffolding etc.)	L.S.	100.00	2.27	227.00	
	TOTAL				7061.25	W
	Add 1 % Water charges on “W”				70.61	
	TOTAL				7131.86	X
	Add GST on “X” (multiplying factor 0.2127)				1516.95	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				8648.81	Y
	Add 15% CPOH on "Y"				1297.32	
	TOTAL				9946.13	Z
	Add Cess @ 1% on "Z"				99.46	
	Cost of 10 sqm				10045.59	
	Cost of 1 sqm				1004.56	
	Say				1004.55	

26.8 Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size underdeck on ceiling surface, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/cum as per ASTM D 1622, water absorptions ≤ 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
8561	Extruded polystyrene rigid insulation board 50 mm thick including 2% wastage	sqm	10.20	610.00	6222.00	
	LABOUR					
0111	Carpenter 1st class	day	0.50	897.00	448.50	
0128	Mate	day	0.50	816.00	408.00	
0114	Beldar	day	0.50	736.00	368.00	
9999	Sundries (Water based adhesive, fasteners, scaffolding etc.)	L.S.	100.00	2.27	227.00	
	TOTAL				7673.50	W
	Add 1 % Water charges on "W"				76.74	
	TOTAL				7750.24	X
	Add GST on "X" (multiplying factor 0.2127)				1648.48	
	TOTAL				9398.72	Y
	Add 15% CPOH on "Y"				1409.81	
	TOTAL				10808.53	Z
	Add Cess @ 1% on "Z"				108.09	
	Cost of 10 sqm				10916.62	
	Cost of 1 sqm				1091.66	
	Say				1091.65	

26.9 Providing and fixing factory made solid Foam uPVC profile for kitchen cabinet frame (45 x 20 mm) of approved shade, quality and make. The profile shall be laminated on both sides, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and the exposed edges sealed with PVC edge beading of same shade and colour. The frame shall be fire retardent with necessary screw holding capacity. Frame shall be fixed to wall using Expendable Fastner with necesary stainless steel screws, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for kitchen cabinate (2.00 x 0.45)+(2.00+0.615)= 2.13 mtr					
	MATERIAL					
2491	Pre laminated both side solid foam uPVC profile (45x20mm)	metre	2.13	136.00	289.68	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2493	PVC edge beading	metre	4.26	33.00	140.58	
2494	Expandable fastner with plastic sleeve	each	8.00	7.00	56.00	
8210	Stainless steel screws 50 mm	100 Nos	0.08	320.00	25.60	
	LABOUR					
0111	Carpenter 1st class	day	0.10	897.00	89.70	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				675.16	W
	Add 1 % Water charges on “W”				6.75	
	TOTAL				681.91	X
	Add GST on “X” (multiplying factor 0.2127)				145.04	
	TOTAL				826.95	Y
	Add 15% CPOH on “Y”				124.04	
	TOTAL				950.99	Z
	Add Cess @ 1% on “Z”				9.51	
	Cost for 2.13 metre				960.50	
	Cost for 1 metre				450.94	
	Say				450.95	

26.10 Providing and fixing factory made Kitchen Cabinet Shutter/Partition 20 mm nominal thickness of approved shade, quality and make, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and laminated on both side by laminate Sheet/PVC foil lamination. The exposed edges shall be sealed with PVC edge beading of same shade and colour. The shutter shall be fire retardent having necessary screw holding capacity. Shutter shall be fixed to frame using approved hinges with necessary stainless steel screws, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for of one shutter 0.46 x0.61m =0.281 sqm					
	MATERIAL					
2492	Solid foam uPVC sheet 20mm thick prelaminated on both side	sqm	0.281	2187.00	614.55	
2493	PVC edge beading	metre	2.130	33.00	70.29	
9999	Sundries	L.S.	20.000	2.27	45.40	
	LABOUR					
0111	Carpenter 1st class	day	0.200	897.00	179.40	
0114	Beldar	day	0.200	736.00	147.20	
	TOTAL				1056.84	W
	Add 1 % Water charges on “W”				10.57	
	TOTAL				1067.41	X
	Add GST on “X” (multiplying factor 0.2127)				227.04	
	TOTAL				1294.45	Y
	Add 15% CPOH on “Y”				194.17	
	TOTAL				1488.62	Z
	Add Cess @ 1% on “Z”				14.89	
	Cost for 0.281 sqm				1503.51	
	Cost for 1 sqm				5350.57	
	Say				5350.55	

26.11 Providing and fixing concealed hinge of approved quality for 19-20mm thick door with stainless steel screws complete :

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos					
	MATERIAL					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8226	Concealed zinc coated hinges 19-20 mm thick with mounting plate	10 Nos	1.00	570.00	570.00	
8210	Stainless steel screws 50 mm	100 Nos	0.80	320.00	256.00	
9977	Carriage of material	L.S.	2.73	2.27	6.20	
	LABOUR					
0112	Carpenter 2nd class	day	0.14	816.00	114.24	
0114	Beldar	day	0.09	736.00	66.24	
	TOTAL				1012.68	W
	Add 1 % Water charges on “W”				10.13	
	TOTAL				1022.81	X
	Add GST on “X” (multiplying factor 0.2127)				217.55	
	TOTAL				1240.36	Y
	Add 15% CPOH on “Y”				186.05	
	TOTAL				1426.41	Z
	Add Cess @ 1% on “Z”				14.26	
	Cost of 10 nos				1440.67	
	Cost of 1 no				144.07	
	Say				144.05	

26.12 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 15kN/m in the longitudinal and transverse direction, with 5kN/m and 7kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm					
	MATERIAL					
8956	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 15 kN/m in the longitudinal and transverse direction	Sqm	300.00	138.00	41400.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				4140.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				52697.76	W
	Add 1 % Water charges on “W”				526.98	
	TOTAL				53224.74	X
	Add GST on “X” (multiplying factor 0.2127)				11320.90	
	TOTAL				64545.64	Y
	Add 15% CPOH on “Y”				9681.85	
	TOTAL				74227.49	Z
	Add Cess @ 1% on “Z”				742.27	
	Cost for 300 Sqm				74969.76	
	Cost per Sqm				249.90	
	Say				249.90	

26.13 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 20kN/m in the longitudinal and transverse direction, with 7kN/m and 14kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm					
	MATERIAL					
8957	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 20kN/m in the longitudinal and transverse direction	sqm	300.00	155.00	46500.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				4650.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				58307.76	W
	Add 1 % Water charges on "W"				583.08	
	TOTAL				58890.84	X
	Add GST on "X" (multiplying factor 0.2127)				12526.08	
	TOTAL				71416.92	Y
	Add 15% CPOH on "Y"				10712.54	
	TOTAL				82129.46	Z
	Add Cess @ 1% on "Z"				821.29	
	Cost for 300 Sqm				82950.75	
	Cost per Sqm				276.50	
	Say				276.50	

26.14 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm					
	MATERIAL					
8958	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 30kN/m in the longitudinal and transverse direction	sqm	300.00	235.00	70500.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				7050.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				84707.76	W
	Add 1 % Water charges on “W”				847.08	
	TOTAL				85554.84	X
	Add GST on “X” (multiplying factor 0.2127)				18197.51	
	TOTAL				103752.35	Y
	Add 15% CPOH on “Y”				15562.85	
	TOTAL				119315.20	Z
	Add Cess @ 1% on “Z”				1193.15	
	Cost for 300 Sqm				120508.35	
	Cost per Sqm				401.69	
	Say				401.70	

26.15 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 40kN/m in the longitudinal and transverse direction, with 14kN/m and 28kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm					
	MATERIAL					
8959	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 40kN/m in the longitudinal and transverse direction	Sqm	300.00	333.00	99900.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				9990.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				117047.76	W
	Add 1 % Water charges on “W”				1170.48	
	TOTAL				118218.24	X
	Add GST on “X” (multiplying factor 0.2127)				25145.02	
	TOTAL				143363.26	Y
	Add 15% CPOH on “Y”				21504.49	
	TOTAL				164867.75	Z
	Add Cess @ 1% on “Z”				1648.68	
	Cost for 300 Sqm				166516.43	
	Cost per Sqm				555.05	
	Say				555.05	

26.16 Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. Geocomposite for planar drainage, realized by thermobonding a draining core in extruded monofilaments with two filtering nonwoven geotextiles that may also be working as separation or protecting layers. The draining three dimensional core will have a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm charecteristic opening size (O90) of 110 micron and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 18 kN/m , with mass per unit area of 740 gsm, supplied in the form of roll for easy transportation to site of work as per detailed specification all complete as per directions of Engineer in charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Material					
	Details of Cost for 300 Sqm					
8960	Geosynthetic Drainage Composite	sqm	300.00	609.00	182700.00	P
	Add 10 per cent of the cost of synthetic Composits for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composits and other miscelleneus activities required to complete the item in all respect including transpotarion & takes.					
	10% of "P"				18270.00	
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				208127.76	W
	Add 1 % Water charges on "W"				2081.28	
	TOTAL				210209.04	X
	Add GST on "X" (multiplying factor 0.2127)				44711.46	
	TOTAL				254920.50	Y
	Add 15% CPOH on "Y"				38238.08	
	TOTAL				293158.58	Z
	Add Cess @ 1% on "Z"				2931.59	
	Cost for 300 Sqm				296090.17	
	Cost per Sqm				986.97	
	Say				986.95	

26.17 Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlayed ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 gsm and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/m , with mass per unit area of 830 gsm, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer - In - Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Material					
	Details of Cost for 300 Sqm					
8961	Geosynthetic Drainage Composite	sqm	300.00	724.00	217200.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 10 per cent of the cost of synthetic Composits for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composits and other miscelleneus activities required to complete the item in all respect including transpotarion & takes. 10% of "P"				21720.00	
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				246077.76	W
	Add 1 % Water charges on "W"				2460.78	
	TOTAL				248538.54	X
	Add GST on "X" (multiplying factor 0.2127)				52864.15	
	TOTAL				301402.69	Y
	Add 15% CPOH on "Y"				45210.40	
	TOTAL				346613.09	Z
	Add Cess @ 1% on "Z"				3466.13	
	Cost for 300 Sqm				350079.22	
	Cost per Sqm				1166.93	
	Say				1166.95	

26.18 Supplying and laying high strength flexible geogrids (HSFG) as soil reinforcement / basal reinforcement as per MORTH 3100 and IRC 113, made of high tenacity polyester core with polyethylene coating with Minimum Long Term Design Strength (LTDS) of more than 50% of ultimate tensile strength at 30 degree Celcius corresponding to 12 % strain .

26.18.1 Ultimate tensile strength- 100 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8962	Synthetic Geogrid having umtimate tensile strength 100 kN/m	Sqm	300.00	230.00	69000.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				6900.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				83057.76	W
	Add 1 % Water charges on "W"				830.58	
	TOTAL				83888.34	X
	Add GST on "X" (multiplying factor 0.2127)				17843.05	
	TOTAL				101731.39	Y
	Add 15% CPOH on "Y"				15259.71	
	TOTAL				116991.10	Z
	Add Cess @ 1% on "Z"				1169.91	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cost for 300 Sqm				118161.01	
	Cost per Sqm				393.87	
	Say				393.85	

26.18.2 Ultimate tensile strength- 150 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8963	Synthetic Geogrid having umtimate tensile strength 150 kN/m	sqm	300.00	241.00	72300.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				7230.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				86687.76	W
	Add 1 % Water charges on “W”				866.88	
	TOTAL				87554.64	X
	Add GST on “X” (multiplying factor 0.2127)				18622.87	
	TOTAL				106177.51	Y
	Add 15% CPOH on “Y”				15926.63	
	TOTAL				122104.14	Z
	Add Cess @ 1% on “Z”				1221.04	
	Cost for 300 Sqm				123325.18	
	Cost per Sqm				411.08	
	say				411.10	

26.18.3 Ultimate tensile strength- 200 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8964	Synthetic Geogrid having umtimate tensile strength 200 kN/m	sqm	300.00	391.00	117300.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				11730.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				136187.76	W
	Add 1 % Water charges on “W”				1361.88	
	TOTAL				137549.64	X
	Add GST on “X” (multiplying factor 0.2127)				29256.81	
	TOTAL				166806.45	Y
	Add 15% CPOH on “Y”				25020.97	
	TOTAL				191827.42	Z
	Add Cess @ 1% on “Z”				1918.27	
	Cost for 300 Sqm				193745.69	
	Cost per Sqm				645.82	
	say				645.80	

26.18.4 Ultimate tensile strength- 250 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8965	Synthetic Geogrid having umtimate tensile strength 250 kN/m	sqm	300.00	402.00	120600.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				12060.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				139817.76	W
	Add 1 % Water charges on “W”				1398.18	
	TOTAL				141215.94	X
	Add GST on “X” (multiplying factor 0.2127)				30036.63	
	TOTAL				171252.57	Y
	Add 15% CPOH on “Y”				25687.89	
	TOTAL				196940.46	Z
	Add Cess @ 1% on “Z”				1969.40	
	Cost for 300 Sqm				198909.86	
	Cost per Sqm				663.03	
	say				663.05	

26.18.5 Ultimate tensile strength- 300 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8966	Synthetic Geogrid having umtimate tensile strength 300 kN/m	sqm	300.00	414.00	124200.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				12420.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				143777.76	W
	Add 1 % Water charges on "W"				1437.78	
	TOTAL				145215.54	X
	Add GST on "X" (multiplying factor 0.2127)				30887.35	
	TOTAL				176102.89	Y
	Add 15% CPOH on "Y"				26415.43	
	TOTAL				202518.32	Z
	Add Cess @ 1% on "Z"				2025.18	
	Cost for 300 Sqm				204543.50	
	Cost per Sqm				681.81	
	say				681.80	

26.18.6 Ultimate tensile strength- 350 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8967	Synthetic Geogrid having umtimate tensile strength 350 kN/m	sqm	300.00	425.00	127500.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				12750.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				147407.76	W
	Add 1 % Water charges on "W"				1474.08	
	TOTAL				148881.84	X
	Add GST on "X" (multiplying factor 0.2127)				31667.17	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				180549.01	Y
	Add 15% CPOH on “Y”				27082.35	
	TOTAL				207631.36	Z
	Add Cess @ 1% on “Z”				2076.31	
	Cost for 300 Sqm				209707.67	
	Cost per Sqm				699.03	
	say				699.05	

26.18.7 Ultimate tensile strength- 400 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8968	Synthetic Geogrid having umtimate tensile strength 400 kN/m	sqm	300.00	517.00	155100.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				15510.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				177767.76	W
	Add 1 % Water charges on “W”				1777.68	
	TOTAL				179545.44	X
	Add GST on “X” (multiplying factor 0.2127)				38189.32	
	TOTAL				217734.76	Y
	Add 15% CPOH on “Y”				32660.21	
	TOTAL				250394.97	Z
	Add Cess @ 1% on “Z”				2503.95	
	Cost for 300 Sqm				252898.92	
	Cost per Sqm				843.00	
	say				843.00	

26.18.8 Ultimate tensile strength- 500 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8969	Synthetic Geogrid having umtimate tensile strength 500 kN/m	sqm	300.00	575.00	172500.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				17250.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				196907.76	W
	Add 1 % Water charges on “W”				1969.08	
	TOTAL				198876.84	X
	Add GST on “X” (multiplying factor 0.2127)				42301.10	
	TOTAL				241177.94	Y
	Add 15% CPOH on “Y”				36176.69	
	TOTAL				277354.63	Z
	Add Cess @ 1% on “Z”				2773.55	
	Cost for 300 Sqm				280128.18	
	Cost per Sqm				933.76	
	say				933.75	

26.18.9 Ultimate tensile strength- 600 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8970	Synthetic Geogrid having umtimate tensile strength 600 kN/m	sqm	300.00	632.00	189600.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				18960.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				215717.76	W
	Add 1 % Water charges on “W”				2157.18	
	TOTAL				217874.94	X
	Add GST on “X” (multiplying factor 0.2127)				46342.00	
	TOTAL				264216.94	Y
	Add 15% CPOH on “Y”				39632.54	
	TOTAL				303849.48	Z
	Add Cess @ 1% on “Z”				3038.49	
	Cost for 300 Sqm				306887.97	
	Cost per Sqm				1022.96	
	say				1022.95	

26.18.10 Ultimate tensile strength- 700 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8971	Synthetic Geogrid having umtimate tensile strength 700 kN/m	sqm	300.00	747.00	224100.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				22410.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				253667.76	W
	Add 1 % Water charges on "W"				2536.68	
	TOTAL				256204.44	X
	Add GST on "X" (multiplying factor 0.2127)				54494.68	
	TOTAL				310699.12	Y
	Add 15% CPOH on "Y"				46604.87	
	TOTAL				357303.99	Z
	Add Cess @ 1% on "Z"				3573.04	
	Cost for 300 Sqm				360877.03	
	Cost per Sqm				1202.92	
	say				1202.90	

26.18.11 Ultimate tensile strength- 800 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8972	Synthetic Geogrid having umtimate tensile strength 800 kN/m	sqm	300.00	833.00	249900.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				24990.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				282047.76	W
	Add 1 % Water charges on "W"				2820.48	
	TOTAL				284868.24	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on “X” (multiplying factor 0.2127)				60591.47	
	TOTAL				345459.71	Y
	Add 15% CPOH on “Y”				51818.96	
	TOTAL				397278.67	Z
	Add Cess @ 1% on “Z”				3972.79	
	Cost for 300 Sqm				401251.46	
	Cost per Sqm				1337.50	
	say				1337.50	

26.18.12 Ultimate tensile strength- 900 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8973	Synthetic Geogrid having umtimate tensile strength 900 kN/m	sqm	300.00	977.00	293100.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of “P”				29310.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				329567.76	W
	Add 1 % Water charges on “W”				3295.68	
	TOTAL				332863.44	X
	Add GST on “X” (multiplying factor 0.2127)				70800.05	
	TOTAL				403663.49	Y
	Add 15% CPOH on “Y”				60549.52	
	TOTAL				464213.01	Z
	Add Cess @ 1% on “Z”				4642.13	
	Cost for 300 Sqm				468855.14	
	Cost per Sqm				1562.85	
	say				1562.85	

26.18.13 Ultimate tensile strength- 1000 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8974	Synthetic Geogrid having umtimate tensile strength 1000 kN/m	sqm	300.00	1092.00	327600.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				32760.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				367517.76	W
	Add 1 % Water charges on "W"				3675.18	
	TOTAL				371192.94	X
	Add GST on "X" (multiplying factor 0.2127)				78952.74	
	TOTAL				450145.68	Y
	Add 15% CPOH on "Y"				67521.85	
	TOTAL				517667.53	Z
	Add Cess @ 1% on "Z"				5176.68	
	Cost for 300 Sqm				522844.21	
	Cost per Sqm				1742.81	
	say				1742.80	

26.18.14 Ultimate tensile strength- 1100 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8975	Synthetic Geogrid having umtimate tensile strength 1100 kN/m	sqm	300.00	1150.00	345000.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wsatage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				34500.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				386657.76	W
	Add 1 % Water charges on "W"				3866.58	
	TOTAL				390524.34	X
	Add GST on "X" (multiplying factor 0.2127)				83064.53	
	TOTAL				473588.87	Y
	Add 15% CPOH on "Y"				71038.33	
	TOTAL				544627.20	Z
	Add Cess @ 1% on "Z"				5446.27	
	Cost for 300 Sqm				550073.47	
	Cost per Sqm				1833.58	
	say				1833.60	

26.18.15 Ultimate tensile strength- 1200 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
	Details of Cost for 300 Sqm					
8976	Synthetic Geogrid having umtimate tensile strength 1200 kN/m	sqm	300.00	1207.00	362100.00	P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				36210.00	
	LABOUR					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	TOTAL				405467.76	W
	Add 1 % Water charges on "W"				4054.68	
	TOTAL				409522.44	X
	Add GST on "X" (multiplying factor 0.2127)				87105.42	
	TOTAL				496627.86	Y
	Add 15% CPOH on "Y"				74494.18	
	TOTAL				571122.04	Z
	Add Cess @ 1% on "Z"				5711.22	
	Cost for 300 Sqm				576833.26	
	Cost per Sqm				1922.78	
	say				1922.80	

26.19 Providing at all heights, levels and locations Aluminium profile industrial troughed sheet of Alloy 31500/31000/40800, conforming to IS 1254, IS 737, IS 2676. The sheet shall be fixed using self drilling/self tapping SS screws of size 5.5x65 mm with EPDM seal complete upto required pitch in horizontal, vertical or curved surfaces i/c cutting to size and shape where required as per specifications, detail drawings and direction of Engineer-in-Charge. The rate shall be inclusive of all screws, seal, ridge, labour, scaffolding, machinery for fixing and approved sealent where required etc. but excluding the cost of purlins, rafters and trusses.

26.19.1 0.71 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 216.14 sqm Consider a shed of 20x10 metres. (External dimensions of plinth). Area of roof- 20.20x10.70m = 216.14 sqm. MATERIAL: Sheets used = 20 Nosx10.70mx1.044m = 223.42 sqm, Add 3% wastage = 6.70 sqm,- Total = 230.12sqm					
8977	Aluminium profile sheet 0.71 mm	sqm	230.12	660.00	151879.20	
9999	Carriage of sheets	L.S.	104.00	2.27	236.08	
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	47.60	130.00	6188.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1208	Bitumen washer	100 Nos	4.76	30.00	142.80	
1209	G.I. plain washer thick	100 Nos	4.76	35.00	166.60	
9999	Carriage of bolts and nuts, washers etc.	L.S.	8.06	2.27	18.30	
9999	Sundries	L.S.	39.52	2.27	89.71	
	LABOUR:					
0130	Mistry	day	2.34	897.00	2098.98	
0112	Carpenter 2nd class	day	9.34	816.00	7621.44	
0114	Beldar	day	9.34	736.00	6874.24	
	TOTAL				175315.35	W
	Add 1 % Water charges on “W”				1753.15	
	TOTAL				177068.50	X
	Add GST on “X” (multiplying factor 0.2127)				37662.47	
	TOTAL				214730.97	Y
	Add 15% CPOH on “Y”				32209.65	
	TOTAL				246940.62	Z
	Add Cess @ 1% on “Z”				2469.41	
	Cost of 216.14 sqm				249410.03	
	Cost of 1 sqm				1153.93	
	Say				1153.95	

26.19.2 0.91 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 216.14 sqm Consider a shed of 20x10 metres. (External dimensions of plinth). Area of roof- 20.2x10.70m = 216.14 sqm. MATERIAL: Sheets used = 20 Nosx10.70mx1.044m = 223.42 sqm, Add 3% wastage = 6.70 sqm, Total = 230.12sqm					
8978	Aluminium profile sheet 0.91 mm	sqm	230.12	864.00	198823.68	
9999	Carriage of sheets	L.S.	104.00	2.27	236.08	
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	47.60	130.00	6188.00	
1208	Bitumen washer	100 Nos	4.76	30.00	142.80	
1209	G.I. plain washer thick	100 Nos	4.76	35.00	166.60	
9999	Carriage of bolts and nuts, washers etc.	L.S.	8.06	2.27	18.30	
9999	Sundries	L.S.	39.52	2.27	89.71	
	LABOUR:					
0130	Mistry	day	2.34	897.00	2098.98	
0112	Carpenter 2nd class	day	9.34	816.00	7621.44	
0114	Beldar	day	9.34	736.00	6874.24	
	TOTAL				222259.83	W
	Add 1 % Water charges on “W”				2222.60	
	TOTAL				224482.43	X
	Add GST on “X” (multiplying factor 0.2127)				47747.41	
	TOTAL				272229.84	Y
	Add 15% CPOH on “Y”				40834.48	
	TOTAL				313064.32	Z
	Add Cess @ 1% on “Z”				3130.64	
	Cost of 216.14 sqm				316194.96	
	Cost of 1 sqm				1462.92	
	Say				1462.90	

26.22 Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns as per CPWD Specification 2019, to be laid in true horizontal level suspended on inter-locking metal T-Grid of hot dipped galvanised iron section of 0.33mmthick (galvanized @ 120 grams per sqm including both sides)comprising of main-T runners of size 24x38 mm of length 3000 mm,cross - T of size 24x32 mm of length 1200 mm and secondaryintermediate cross-T of size 24x32 mm of length 600mm to formgrid module of size 600 x 600 mm, suspended from ceiling usinggalvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 12x50 mm long dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 76x25x25x1.6 mm fixed with grid and Z cleat of size 25x37x25x1.6mm thick with precut hole on both 25mm flange to pierce into 12x50mm or even bigger size dash fastener if require, fixed with Glavanised iron perimeter wall angle or size 24x24x0.40 mm of length 3000 mm to be fixed on periphey wall / partition with the help of plastic rawl plugs at 450mm center to center and 40 mm long dry wall S.S screws. The workshall be carried out as per specifications, drawing and as per directionsof the Engineer-in-Charge.

26.22.1 With 15 mm thick Tegular edged light weight calcium sliciate false ceiling tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
8589	Calcium Slicate tegular edged Flase ceiling tiles 595x595 mm and 15 mm thick Ceiling Area = 100 sqm + Add 5% wastage = 5 sqm. Total = 105 sqm	sqm	105.00	822.00	86310.00	
8590	Galavanised iron main Tee ceiling section Size 24x38x0.33 mm (3 metre long) including wastage @ 10%	each	29.50	167.00	4926.50	
8591	Galavanised iron perimeter wall Angle Size 24x24x0.40 mm (3.00 metre long) including wastage @ 10%	each	13.50	114.00	1539.00	
8592	Galavanised iron intermediate cross T section Size 24x32x0.33 mm (1.2 metre long) including wastage @ 10%	each	147.00	54.00	7938.00	
8593	Glavanised iron intermediate cross T section Size 24 x 32x 0.33 mm (0.6 metre long)	each	147.00	27.00	3969.00	
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	72.00	17.00	1224.00	
5775	Galavinised MS L-shape level adjuster of size 76x25x25x1.6 mm	each	72.00	15.00	1080.00	
5776	12x50 mm long dash fastener	each	72.00	35.00	2520.00	
5777	Galvanized MS Z Cleat of size 25 x 37 x 25 x 1.6 mm with precut hole on both 25 mm flange	each	72.00	13.00	936.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos.	1.00	270.00	270.00	
9999	Scaffolding etc.	L.S.	498.65	2.27	1131.94	
9977	Carriage of materails etc.	L.S.	237.48	2.27	539.08	
9999	Sundries	L.S.	310.70	2.27	705.29	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				155132.81	W
	Add 1 % Water charges on “W”				1551.33	
	TOTAL				156684.14	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				33326.72	
	TOTAL				190010.86	Y
	Add 15% CPOH on "Y"				28501.63	
	TOTAL				218512.49	Z
	Add Cess @ 1% on "Z"				2185.12	
	Cost of 100 sqm.				220697.61	
	Cost of 1 sqm.				2206.98	
	Say				2207.00	

26.22.2 With 15 mm thick tegular/butt edged without perforation plain/designer light weight calcium silicate Anti-Microbial Bio-Safe coated false ceiling tiles Conforming to JIS-Z2801 and ASTM G-21

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
5778	15 mm thick tegular/butt edged without perforation plain/designer light weight calcium silicate Anti-Microbial Bio-Safe coated false ceiling tiles of size 595x595mm Ceiling Area = 100 sqm + Add 5% wastage = 5 sqm. Total = 105 sqm	sqm	105.00	885.00	92925.00	
8590	Galavanised iron main Tee ceiling section Size 24x38x0.33 mm (3 metre long) including wastage @ 10%	each	29.50	167.00	4926.50	
8591	Galavanised iron perimeter wall Angle Size 24x24x0.40 mm (3.00 metre long) including wastage @ 10%	each	13.50	114.00	1539.00	
8592	Galavanised iron intermediate cross T section Size 24x32x0.33 mm (1.2 metre long) including wastage @ 10%	each	147.00	54.00	7938.00	
8593	Glavanised iron intermediate cross T section Size 24 x 32x 0.33 mm (0.6 metre long)	each	147.00	27.00	3969.00	
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	72.00	17.00	1224.00	
5775	Galavinised MS L-shape level adjuster of size 76x25x25x1.6 mm	each	72.00	15.00	1080.00	
5776	12x50 mm long dash fastener	each	72.00	35.00	2520.00	
5777	Galvanized MS Z Cleat of size 25 x 37 x 25 x 1.6 mm with precut hole on both 25 mm flange	each	72.00	13.00	936.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos.	1.00	270.00	270.00	
9999	Scaffolding etc.	L.S.	498.65	2.27	1131.94	
9977	Carriage of materails etc.	L.S.	237.48	2.27	539.08	
9999	Sundries	L.S.	310.70	2.27	705.29	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				161747.81	W
	Add 1 % Water charges on "W"				1617.48	
	TOTAL				163365.29	X
	Add GST on "X" (multiplying factor 0.2127)				34747.80	
	TOTAL				198113.09	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				29716.96	
	TOTAL				227830.05	Z
	Add Cess @ 1% on "Z"				2278.30	
	Cost of 100 sqm.				230108.35	
	Cost of 1 sqm.				2301.08	
	Say				2301.10	

26.23 Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on inter-locking metal powder coated T-Grid of hot dipped galvanised iron section of 0.40 mm thick on Silhouette profile,rotary stiched double webbed white with 6mm reveal profile (white/ black),comprising of main-T runners of size 15x42mm of length 3000 mm, cross - T of size 15x42 mm of length 1200 mm and secondary intermediate cross-T of size 15x42 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 22x19x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.

26.23.1 With 15 mm thick integral densified micro edge light weight calcium silicate false ceiling tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
8563	15 mm thick, light weight, integral densified micro look edged,false ceiling tiles of size 595x595 mm.	sqm	105.00	925.00	97125.00	
	Celling Area = 100 sqm + Add 5% wastage = 5 sqm. Total = 105 sqm					
	SILHOUETTE Profile grid frame :					
8567	Galvanized mild steel perimeter wall angle 22x19x0.40 mm (3000 mm long) including wastage @10%	each	13.50	131.00	1768.50	
8566	Powder coated steel section main-T ceiling sections 15x42x0.40 mm (3000 mm long) including wastage @10%	each	29.50	296.00	8732.00	
8568	Powder coated Galvanised Iron intermediate cross-T section 15x42x0.40 mm (1200 mm long) including wastage @10%	each	147.00	120.00	17640.00	
8569	Powder coated Galvanized Iron intermediate cross-T section 15x42x0.40mm (600 mm long) including wastage @10%	each	147.00	60.00	8820.00	
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	72.00	17.00	1224.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	18.00	1296.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8515	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	72.00	50.00	3600.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	270.00	270.00	
9999	Scaffolding etc.	L.S.	498.65	2.27	1131.94	
9977	Carriage of materials etc.	L.S.	237.48	2.27	539.08	
9999	Sundries	L.S.	310.70	2.27	705.29	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				184895.81	W
	Add 1 % Water charges on “W”				1848.96	
	TOTAL				186744.77	X
	Add GST on “X” (multiplying factor 0.2127)				39720.61	
	TOTAL				226465.38	Y
	Add 15% CPOH on “Y”				33969.81	
	TOTAL				260435.19	Z
	Add Cess @ 1% on “Z”				2604.35	
	Cost of 100 sqm.				263039.54	
	Cost of 1 sqm.				2630.40	
	Say				2630.40	

26.24 Providing and fixing in position wall panelling at all heights with integral densified calcium silicate panels/tiles of size 595 x 595 mm, having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity <0.043 W/m K as per ASTM 518:1991, comprising of a frame made from especially fabricated galvanised mild steel sheet 0.50 mm thick pressed section (galvanizing @120 grams per sqm including both sides) i.e.vertical studs of size 48 x 34 x 36 mm are placed at 600 mm centre to centre in a floor and ceiling channel section of size 50 x 32 mm fixed to the floor and soffit at 600 mm centre using 12 mm dia,50 mm long wedge type expanded zinc alloy dash fastner with 10 mm bolt. This same channel is then to be fixed in horiziontal direction at 600 mm centre to centre so as to form a grid of 600 mm x 600 mm. Glasswool of 50 mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13 x 3.2 mm on to this grid leaving an even groove of 1 mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound and fiber joint tape roll 50 mm wide (90 metre)roll and two coats of primer suitable for panelling as per manufacturer’s specification as per direction of Engineer-in-Charge all complete.

26.24.1 With 15 mm thick fully perforated square/butt edge light weight calcium silicate panels/ tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6.00 x 3.65=21.90 sqm					
	MATERIAL					
8564	15 mm thick, light weight,fully perforated square/butt edge integral densified,false ceiling tiles of size 595x595 mm. Ceiling area = 21.90 sqm + 1.10 sqm (Add 5% wastage) Total = 23.00 sqm	sqm	23.000	905.00	20815.00	
7367	Galvanised M.S. sheet 0.5 mm thick pressed channel section of size 50x32 mm	metre	12.600	65.00	819.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	2 x 6.00 m=12m +0.60 (Add 5% wastage) = 12.60 m					
7369	Galvanised M.S. sheet 0.50 mm thick pressed stud : 48x34x36 mm 11 x 3.65 m = 40.15 m + 5 x 6.00 = 30.00 m Total= 70.15 m +3.51 (Add 5% wastage) Total = 73.66m	metre	73.660	76.00	5598.16	
7025	Self tapping pan head nickle coated mild steel screws of size 13 x 3.2 mm	1000 Nos	0.392	523.00	205.02	
7383	12 mm dia 50 mm long wedge type expanded zinc alloy dash fastner	each	19.000	8.00	152.00	
7274	Glass wool 50 mm thick 21.90 +1.10 (Add 5% wastage) = 23.00 sqm	sqm	23.000	220.00	5060.00	
0764	Calcium silicate base compound for jointing calcium silicate tiles 22.81/103.68 x 21.9 = 4.82 kgs	kg	4.820	28.00	134.96	
7026	Fibre joint tape 50 mm wide (90 metre) roll 1.27/103.68 x 21.90 = 0.27 roll	each roll	0.270	162.00	43.74	
9999	Sundries such as scaffolding, tools, bits, etc.	L.S.	130.000	2.27	295.10	
9977	Carriage of materials etc.	L.S.	52.000	2.27	118.04	
	LABOUR					
0111	Carpenter 1st class 0.30x21.90=6.57 days	day	6.570	897.00	5893.29	
0112	Carpenter 2nd class 0.13x21.90=2.847 days	day	2.847	816.00	2323.15	
0114	Beldar 0.35x21.90=7.665 days	day	7.665	736.00	5641.44	
0131	Painter	day	1.095	816.00	893.52	
	TOTAL				47992.42	W
	Add 1 % Water charges on “W”				479.92	
	TOTAL				48472.34	X
	Add GST on “X” (multiplying factor 0.2127)				10310.07	
	TOTAL				58782.41	Y
	Add 15% CPOH on “Y”				8817.36	
	TOTAL				67599.77	Z
	Add Cess @ 1% on “Z”				676.00	
	Cost of 21.90 sqm.				68275.77	
	Cost of 1 sqm.				3117.62	
	Say				3117.60	

26.25 Providing and fixing 15 mm thick false ceiling tiles at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,in true horizontal level on the existing frame work consisting of T-sections and Lsections suitably fixed according to tile size as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
8589	Calcium Silicate tegular edged celling tiles 595x595 mm and 15 mm thick 10 + 0.5 (Add wastage @5%) = 10.5 sqm	sqm	10.50	822.00	8631.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9977	Carriage	L.S.	14.95	2.27	33.94	
	LABOUR					
0111	Carpenter 1st class	day	2.50	897.00	2242.50	
0114	Beldar	day	2.00	736.00	1472.00	
9999	Scaffolding	L.S.	31.07	2.27	70.53	
9999	Sundries	L.S.	31.07	2.27	70.53	
	TOTAL				12520.50	W
	Add 1 % Water charges on “W”				125.21	
	TOTAL				12645.71	X
	Add GST on “X” (multiplying factor 0.2127)				2689.74	
	TOTAL				15335.45	Y
	Add 15% CPOH on “Y”				2300.32	
	TOTAL				17635.77	Z
	Add Cess @ 1% on “Z”				176.36	
	Cost of 10 sqm				17812.13	
	Cost of 1 sqm				1781.21	
	Say				1781.20	

26.26 Providing & fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having moisture content less than 2%, humidity resistance of 99%, NRC0.50 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 (part 4)-1970 and light reflectance of 85% (minimum) to be laid in true horizontal level suspended on inter-locking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 15x32 mm of length 3000 mm, cross - T of size 15x32 mm of length 1200 mm and secondary intermediate cross-T of size 15x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall wood screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.

26.26.1 With semi perforated 12 mm thick micro tegular edged GRG false ceiling tiles.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
	Celling area =100 sqm					
	Add wastage @ 5% = 5 sqm					
	Total=105.00 sqm					
8581	12 mm thick micro tegular edged semi perforated GFRG (Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	105.00	605.00	63525.00	
8555	Galvanized iron main-T ceiling sections 15x32x0.33 mm (3000 mm long) Including wastage @ 10%	each	29.50	142.00	4189.00	
8591	Galvanized iron perimeter wall angle 24x24x0.40 mm (3000 mm long) Including wastage @ 10%	each	13.50	114.00	1539.00	
8556	Galvanized iron intermediate cross-T section 15x32x0.33 mm (1200 mm long) Including wastage @ 10%	each	147.00	57.00	8379.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8557	Galvanized iron intermediate cross- T section 15x32x0.33 mm (600 mm long)	each	147.00	29.00	4263.00	
	Including wastage @ 10%					
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	72.00	17.00	1224.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	18.00	1296.00	
8596	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	72.00	15.00	1080.00	
8211	40mm SS with plastic rawl plugs	100 nos	1.00	270.00	270.00	
9999	Scaffolding etc.	L.S.	498.65	2.27	1131.94	
9977	Carriage of materials etc.	L.S.	237.48	2.27	539.08	
9999	Sundries	L.S.	310.70	2.27	705.29	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				130185.31	W
	Add 1 % Water charges on “W”				1301.85	
	TOTAL				131487.16	X
	Add GST on “X” (multiplying factor 0.2127)				27967.32	
	TOTAL				159454.48	Y
	Add 15% CPOH on “Y”				23918.17	
	TOTAL				183372.65	Z
	Add Cess @ 1% on “Z”				1833.73	
	Cost of 100 sqm				185206.38	
	Cost of 1 sqm				1852.06	
	Say				1852.05	

26.26.2 With fully perforated 12 mm thick micro tegular edged or 10 mm thick square edged GRG false ceiling tiles.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
	Celling area =100 sqm					
	Add wastage @ 5% = 5 sqm					
	Total=105.00 sqm					
8582	12 mm thick micro tegular edged fully perforated GFRG (Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	105.00	642.00	67410.00	
8555	Galvanized iron main-T ceiling sections 15x32x0.33 mm (3000 mm long)	each	29.50	142.00	4189.00	
	Including wastage @ 10%					
8591	Galvanized iron perimeter wall angle 24x24x0.40 mm (3000 mm long)	each	13.50	114.00	1539.00	
	Including wastage @ 10%					
8556	Galvanized iron intermediate cross- T section 15x32x0.33 mm (1200 mm long)	each	147.00	57.00	8379.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Including wastage @ 10%					
8557	Galvanized iron intermediate cross-T section 15x32x0.33 mm (600 mm long) Including wastage @ 10%	each	147.00	29.00	4263.00	
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	72.00	17.00	1224.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	18.00	1296.00	
8596	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	72.00	15.00	1080.00	
8211	40mm long SS screws with plastic rawl plugs	100 nos	1.00	270.00	270.00	
9999	Scaffolding etc.	L.S.	498.65	2.27	1131.94	
9977	Carriage of materials etc.	L.S.	237.48	2.27	539.08	
9999	Sundries	L.S.	310.70	2.27	705.29	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				134070.31	W
	Add 1 % Water charges on “W”				1340.70	
	TOTAL				135411.01	X
	Add GST on “X” (multiplying factor 0.2127)				28801.92	
	TOTAL				164212.93	Y
	Add 15% CPOH on “Y”				24631.94	
	TOTAL				188844.87	Z
	Add Cess @ 1% on “Z”				1888.45	
	Cost of 100 sqm				190733.32	
	Cost of 1 sqm				1907.33	
	Say				1907.35	

26.27 Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance ≥ 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizont al level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main ‘T’. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge.

26.27.1 With 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.60)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 Sqm					
	MATERIAL					
8552	Mineral fibre beveled tegular edged ceiling tiles 595x595 mm, 16 mm thick Area = 100 sqm + 5 sqm (Add for wastage @5%) Total = 105 sqm	sqm	105.00	920.00	96600.00	

Code	Description	Unit	Quantity	Rate Rs.	Amount Rs.	
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick	each	29.50	142.00	4189.00	
	including 10 % wastage					
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick	each	147.00	57.00	8379.00	
	including 10 % wastage					
8557	G.I. cross Tee 15X32mm of 600mm length, 0.33 mm thick	each	147.00	29.00	4263.00	
	including 10 % wastage					
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long)	each	13.50	114.00	1539.00	
	including 10 % wastage					
8558	Galvanised Iron hanger rod 6mm dia fully threaded upto 1000mm length	each	72.00	17.00	1224.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	18.00	1296.00	
8515	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	72.00	50.00	3600.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	270.00	270.00	
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.27	426.65	
9977	Carriage of material etc.	L.S.	89.35	2.27	202.82	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				164033.47	W
	Add 1 % Water charges on “W”				1640.33	
	TOTAL				165673.80	X
	Add GST on “X” (multiplying factor 0.2127)				35238.82	
	TOTAL				200912.62	Y
	Add 15% CPOH on “Y”				30136.89	
	TOTAL				231049.51	Z
	Add Cess @ 1% on “Z”				2310.50	
	Cost of 100 sqm				233360.01	
	Cost of 1 sqm				2333.60	
	Say				2333.60	

26.27.2 With 20 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.7)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
8554	Mineral fibre beveled tegular edged ceiling tiles 595x595mm, 20 mm thick i/c 5% wastage	sqm	105.00	1170.00	122850.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick i/c 10% wastage	each	29.50	142.00	4189.00	
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick i/c 10% wastage	each	147.00	57.00	8379.00	
8557	G.I cross-T 15 x32 mm of 600 mm length, 0.33 mm thick including wastage @10%	each	147.00	29.00	4263.00	
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long) including wastage @10%	each	13.50	114.00	1539.00	
8558	Galvanised Iron hanger rod 6mm dia fully threaded upto 1000mm length	each	72.00	17.00	1224.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	18.00	1296.00	
8596	Galavanised MS 8 mm outer diameter 50mm long	each	72.00	15.00	1080.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	270.00	270.00	
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.27	426.65	
9977	Carriage of materials etc.	L.S.	89.35	2.27	202.82	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				187763.47	W
	Add 1 % Water charges on “W”				1877.63	
	TOTAL				189641.10	X
	Add GST on “X” (multiplying factor 0.2127)				40336.66	
	TOTAL				229977.76	Y
	Add 15% CPOH on “Y”				34496.66	
	TOTAL				264474.42	Z
	Add Cess @ 1% on “Z”				2644.74	
	Cost of 100 sqm				267119.16	
	Cost of 1 sqm				2671.19	
	Say				2671.20	

26.27.3 With 16 mm thick beveled tegular mineral fibre Anti-microbial false ceiling tile conforming to ISO 5 (class 100) specifications

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 Sqm					
	MATERIAL					
8553	Mineral fibre beveled tegular edged ceiling tiles 595x595 mm, 16 mm thick with bioblock, conforming to ISO 5 (class 100) specifications Area = 100 sqm + 5 sqm (Add for wastage @5%) Total = 105 sqm	sqm	105.00	1020.00	107100.00	
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick including 10 % wastage	each	29.50	142.00	4189.00	
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick including 10 % wastage	each	147.00	57.00	8379.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8557	G.I. cross Tee 15X32mm of 600mm length,0.33 mm thick including 10 % wastage	each	147.00	29.00	4263.00	
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long) including 10 % wastage	each	13.50	114.00	1539.00	
8558	Galvanised Iron hanger rod 6mm dia fully threaded upto 1000mm length	each	72.00	17.00	1224.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	18.00	1296.00	
8596	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	72.00	15.00	1080.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	270.00	270.00	
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.27	426.65	
9977	Carriage of material etc.	L.S.	89.35	2.27	202.82	
	LABOUR					
0111	Carpenter 1st class	day	28.00	897.00	25116.00	
0114	Beldar	day	23.00	736.00	16928.00	
	TOTAL				172013.47	W
	Add 1 % Water charges on “W”				1720.13	
	TOTAL				173733.60	X
	Add GST on “X” (multiplying factor 0.2127)				36953.14	
	TOTAL				210686.74	Y
	Add 15% CPOH on “Y”				31603.01	
	TOTAL				242289.75	Z
	Add Cess @ 1% on “Z”				2422.90	
	Cost of 100 sqm				244712.65	
	Cost of 1 sqm				2447.13	
	Say				2447.15	

26.28 Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge

26.28.1 75mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for One Sqm					
	75mm average thickness for beams					
	MACHINERY					
9999	Hire charges for HILTY-TE 504 Pneumatic Chisel	L.S.	5.60	2.27	12.71	
	LABOUR					
0157	Machine Operator	day	0.20	897.00	179.40	
0114	Beldar	day	0.10	736.00	73.60	
	TOTAL				265.71	W
	Add 1 % Water charges on “W”				2.66	
	TOTAL				268.37	X
	Add GST on “X” (multiplying factor 0.2127)				57.08	
	TOTAL				325.45	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on “Y”				48.82	
	TOTAL				374.27	Z
	Add Cess @ 1% on “Z”				3.74	
	Cost of 1.0 sqm				378.01	
	Say				378.00	

26.28.2 50mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for One Sqm					
	50mm average thickness for beams					
	MACHINERY					
9999	Hire charges for HILTY-TE 504 Pneumatic Chisel	L.S.	3.740	2.27	8.49	
	LABOUR					
0157	Machine Operator	day	0.134	897.00	120.20	
0114	Beldar	day	0.070	736.00	51.52	
	TOTAL				180.21	W
	Add 1 % Water charges on “W”				1.80	
	TOTAL				182.01	X
	Add GST on “X” (multiplying factor 0.2127)				38.71	
	TOTAL				220.72	Y
	Add 15% CPOH on “Y”				33.11	
	TOTAL				253.83	Z
	Add Cess @ 1% on “Z”				2.54	
	Cost of 1.0 sqm				256.37	
	Say				256.35	

26.28.3 25 mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for One Sqm					
	25mm average thickness for beams					
	MACHINERY					
9999	Hire charges for HILTY-TE 504 Pneumatic Chisel	L.S.	1.87	2.27	4.24	
	LABOUR					
0157	Machine Operator	day	0.07	897.00	62.79	
0114	Beldar	day	0.03	736.00	22.08	
	TOTAL				89.11	W
	Add 1 % Water charges on “W”				0.89	
	TOTAL				90.00	X
	Add GST on “X” (multiplying factor 0.2127)				19.14	
	TOTAL				109.14	Y
	Add 15% CPOH on “Y”				16.37	
	TOTAL				125.51	Z
	Add Cess @ 1% on “Z”				1.26	
	Cost of 1.0 sqm				126.77	
	Say				126.75	

26.29 Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.

26.29.1 Bars upto 12 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 3.00 sqm (95.54 meter length of 10 mm dia bar) Bars upto 12 mm diameter					
	(1 litre chemical shall cover 3.00 sqm area of bars)					
	MATERIALS					
7911	Chemical Rust Remover	litre	1.00	290.00	290.00	
	LABOUR					
	(Application charges for 3.0 sqm)					
0131	Painter	day	0.162	816.00	132.19	
0115	Coolie	day	0.162	736.00	119.23	
9999	Putty, brush, sand paper	L.S.	3.162	2.27	7.18	
9999	Sundries	L.S.	1.980	2.27	4.49	
	TOTAL				553.09	W
	Add 1 % Water charges on “W”				5.53	
	TOTAL				558.62	X
	Add GST on “X” (multiplying factor 0.2127)				118.82	
	TOTAL				677.44	Y
	Add 15% CPOH on “Y”				101.62	
	TOTAL				779.06	Z
	Add Cess @ 1% on “Z”				7.79	
	Cost of 3 sqm (95.54 m length of 10 mm dia bar)				786.85	
	Rate per metre length of bar				8.24	
	Say				8.25	

26.29.2 Bars above 12 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 3.00 sqm (47.78 metre length of 20 mm dia bar) Bars above 12 mm diameter					
	(1 litre chemical shall cover 3.00 sqm area of bars)					
	MATERIALS					
7911	Chemical Rust Remover	litre	1.000	290.00	290.00	
	LABOUR					
	(Application charges for 3.0 sqm)					
0131	Painter	day	0.162	816.00	132.19	
0115	Coolie	day	0.162	736.00	119.23	
9999	Putty, brush, sand paper	L.S.	3.162	2.27	7.18	
9999	Sundries	L.S.	1.980	2.27	4.49	
	TOTAL				553.09	W
	Add 1 % Water charges on “W”				5.53	
	TOTAL				558.62	X
	Add GST on “X” (multiplying factor 0.2127)				118.82	
	TOTAL				677.44	Y
	Add 15% CPOH on “Y”				101.62	
	TOTAL				779.06	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				7.79	
	Cost of 3.00 sqm (47.78m length of 20 mm dia bar)				786.85	
	Rate per metre length of bar				16.47	
	Say				16.45	

26.30 Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm upto 200mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/balconies including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.

26.30.1 Upto and including 12mm dia.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 holes					
	MATERIAL					
7913	Epoxy	kg	0.200	380.00	76.00	
	Approx unit Weight of Epoxy= 2000kg/cum or 2gm/cucm					
	Volume of Epoxy filled =3.14/4[(1.5)2-(1.2)2] x 15.5cm = 9.86cucm					
	Weight of Epoxy for 10 holes=10x9.86 x 2 = 197.20 gms say 200gms = 0.2 kg					
	MACHINERY					
0088	Hire charges of Drill machine upto 30 mm dia	day	0.500	200.00	100.00	
	LABOUR					
0116	Fitter (grade 1)	day	0.500	897.00	448.50	
0114	Beldar	day	0.500	736.00	368.00	
	TOTAL				992.50	W
	Add 1 % Water charges on "W"				9.93	
	TOTAL				1002.43	X
	Add GST on "X" (multiplying factor 0.2127)				213.22	
	TOTAL				1215.65	Y
	Add 15% CPOH on "Y"				182.35	
	TOTAL				1398.00	Z
	Add Cess @ 1% on "Z"				13.98	
	Rate for 10 holes				1411.98	
	Rate for one hole				141.20	
	Say				141.20	

26.31 Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.

26.31.1 SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10.00 Sqm bonding coat					
	MATERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.022	5156.00	113.43	
7914	SBR Polymer	kg	2.200	200.00	440.00	
	@ 10% of cement weight= 22.00kgx10% =2.2 kg					
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0155	Mason (average)	day	0.27	857.00	231.39	
0115	Coolie	day	0.27	736.00	198.72	
9999	Scaffolding and sundries (8.06/2=4.03)	L.S.	4.03	2.27	9.15	
	TOTAL				992.69	W
	Add 1 % Water charges on “W”				9.93	
	TOTAL				1002.62	X
	Add GST on “X” (multiplying factor 0.2127)				213.26	
	TOTAL				1215.88	Y
	Add 15% CPOH on “Y”				182.38	
	TOTAL				1398.26	Z
	Add Cess @ 1% on “Z”				13.98	
	Cost for 10.00 sqm				1412.24	
	Rate per sqm				141.22	
	Say				141.20	

26.31.2 Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 2.20 Sqm					
7913	Epoxy	kg	1.000	380.00	380.00	
9999	Application charge for applying bonding coat of Epoxy	L.S.	18.500	2.27	42.00	
9999	Cost of brushes etc.	L.S.	8.400	2.27	19.07	
	TOTAL				441.07	W
	Add 1 % Water charges on “W”				4.41	
	TOTAL				445.48	X
	Add GST on “X” (multiplying factor 0.2127)				94.75	
	TOTAL				540.23	Y
	Add 15% CPOH on “Y”				81.03	
	TOTAL				621.26	Z
	Add Cess @ 1% on “Z”				6.21	
	Cost for 2.20 sqm				627.47	
	Rate per sqm				285.21	
	Say				285.20	

26.32 Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge.

Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal instrument and/or the 75mm size cube crushing strength at the end of 28 days to be not less than 30 N/Sqmm2).

26.32.1 12 mm average thickness.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10 Sqm MATERIAL Cement mortar 1:4 (1 cement : sand) = 0.144 Cum					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
3.9	Rate as per Item No.3.9 of SH:MORTARS	cum	0.144	4211.70	606.48	
7914	SBR Polymer	kg	1.100	200.00	220.00	
	Qty of cement in mortar= 0.144x0.38= 0.055 MT or 55kg					
	@ 2% of weight of cement 55kgx2%=1.10 kg					
	LABOUR					
0155	Mason (average)	day	0.670	857.00	574.19	
0115	Coolie	day	0.750	736.00	552.00	
0101	Bhisti	day	0.920	816.00	750.72	
9999	Scaffolding and sundries	L.S.	12.610	2.27	28.62	
	TOTAL				2732.01	W
	Add 1 % Water charges on “W”				27.32	
	TOTAL				2759.33	X
	Add GST on “X” (multiplying factor 0.2127)				586.91	
	TOTAL				3346.24	Y
	Add 15% CPOH on “Y”				501.94	
	TOTAL				3848.18	Z
	Add Cess @ 1% on “Z”				38.48	
	Cost for 10 sqm				3886.66	
	Rate per sqm				388.67	
	Say				388.65	

26.32.2 25 mm average thickness in 2 layers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10 Sqm					
	MATERIAL					
	Cement mortar 1:4 (1 cement : 4 coarse sand) =(0.144/12)x25=0.30 Cum					
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.30	4211.70	1263.51	
7914	SBR Polymer	kg	2.28	200.00	456.00	
	Cement 0.30x0.38 = 0.114 MT OR 114 kg					
	@ 2% of weight of cement 114kgx2% =2.28kg					
	LABOUR					
0155	Mason (average)	day	0.94	857.00	805.58	
0115	Coolie	day	1.02	736.00	750.72	
0101	Bhisti	day	1.01	816.00	824.16	
9999	Scaffolding and sundries	L.S.	12.61	2.27	28.62	
	TOTAL				4128.59	W
	Add 1 % Water charges on “W”				41.29	
	TOTAL				4169.88	X
	Add GST on “X” (multiplying factor 0.2127)				886.93	
	TOTAL				5056.81	Y
	Add 15% CPOH on “Y”				758.52	
	TOTAL				5815.33	Z
	Add Cess @ 1% on “Z”				58.15	
	Cost for 10 sqm				5873.48	
	Rate per sqm				587.35	
	Say				587.35	

26.32.3 50 mm average thickness in 3 layers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10 Sqm					
	MATERIAL					
	Cement mortar 1:4 (1 cement : 4 coarse sand) 0.144/12)x50= 0.60 Cum					
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.60	4211.70	2527.02	
7914	SBR Polymer	kg	4.56	200.00	912.00	
	Cement 0.60x0.38 = 0.228 MT OR 228 kg @ 2% of weight of cement 228kgx2% =4.56 kg					
	LABOUR					
0155	Mason (average)	day	1.88	857.00	1611.16	
0115	Coolie	day	2.04	736.00	1501.44	
0101	Bhisti	day	2.02	816.00	1648.32	
9999	Scaffolding and sundries	L.S.	25.22	2.27	57.25	
	TOTAL				8257.19	W
	Add 1 % Water charges on “W”				82.57	
	TOTAL				8339.76	X
	Add GST on “X” (multiplying factor 0.2127)				1773.87	
	TOTAL				10113.63	Y
	Add 15% CPOH on “Y”				1517.04	
	TOTAL				11630.67	Z
	Add Cess @ 1% on “Z”				116.31	
	Cost for 10 sqm				11746.98	
	Rate per sqm				1174.70	
	Say				1174.70	

26.33 **Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members having minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness.**

Note: Rates shall be for finished surface area of concrete and shall include the cost of labour, concrete and appropriate approved Super-Plasticiser for rendering concrete as flowable and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)

26.33.1 50mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm area (0.5cum)					
	M25 concrete 0.5 cum of concrete@ 330 kg/ cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete	cum	0.50	9860.40	4930.20	A
	Deduction of pumping charges					
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.50	250.00	-125.00	
7914	SBR Polymer	kg	3.30	200.00	660.00	
	@2% of cement 165 kg = 165X2% = 3.3 kg					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				5465.20	W
	Add 1 % Water charges on "W-A"				5.35	
	TOTAL				5470.55	X
	Add GST on "X-A" (multiplying factor 0.2127)				114.93	
	TOTAL				5585.48	Y
	Add 15% CPOH on "Y-A"				98.29	
	TOTAL				5683.77	Z
	Add Cess @ 1% on "Z-A"				7.54	
	Cost of 10 sqm				5691.31	
	Cost of 1 sqm				569.13	
	Say				569.15	

26.33.2 75mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm area (0.75cum) M25 concrete 0.75 cum of concrete@ 330 kg/cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC	cum	0.75	9860.40	7395.30	A
	Deduction of pumping charges					
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc	cum	-0.75	250.00	-187.50	
7914	SBR Polymer @2% of cement 247.50 kg = 247.50X2% = 4.95 kg	kg	4.95	200.00	990.00	
	TOTAL				8197.80	W
	Add 1 % Water charges on "W-A"				8.02	
	TOTAL				8205.82	X
	Add GST on "X-A" (multiplying factor 0.2127)				172.40	
	TOTAL				8378.22	Y
	Add 15% CPOH on "Y-A"				147.44	
	TOTAL				8525.66	Z
	Add Cess @ 1% on "Z-A"				11.30	
	Cost of 10 sqm				8536.96	
	Cost of 1 sqm				853.70	
	Say				853.70	

26.34 Providing and laying SBR Polymer modified (of approved make @ minimum 2% by wt. of cement used) plain/reinforced concrete jacket for the structural members e.g. columns, pillars, piers, beams etc with concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness all-round existing core of RCC member.

Note: Rates shall be for finished surface area of concrete and shall include the cost of making holes in existing RCC slab, if required, for pouring concrete in shuttering mould of jacket and appropriate approved Super-Plasticiser for rendering concrete as flowable self compacting and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/ tapping with a blunt metal instrument)

26.34.1 50mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm area (0.5cum) M25 concrete 0.5 cum of concrete@ 330 kg/ cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC Deduction of pumping charges	cum	0.50	9860.40	4930.20	A
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc	cum	-0.50	250.00	-125.00	
7914	SBR Polymer @2% of cement 165 kg = 165X2% = 3.3 kg	kg	3.30	200.00	660.00	
	TOTAL				5465.20	W
	Add 1 % Water charges on “W-A”				5.35	
	TOTAL				5470.55	X
	Add GST on “X-A” (multiplying factor 0.2127)				114.93	
	TOTAL				5585.48	Y
	Add 15% CPOH on “Y-A”				98.29	
	TOTAL				5683.77	Z
	Add Cess @ 1% on “Z-A”				7.54	
	Cost of 10 sqm				5691.31	
	Cost of 1 sqm				569.13	
	Say				569.15	

26.34.2 75mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm area (0.75cum) M25 concrete 0.75 cum of concrete@ 330 kg/cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC Deduction of pumping charges	cum	0.75	9860.40	7395.30	A
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc	cum	-0.75	250.00	-187.50	
7914	SBR Polymer @2% of cement 247.50 kg = 247.50X2% = 4.95 kg	kg	4.95	200.00	990.00	
	TOTAL				8197.80	W
	Add 1 % Water charges on “W-A”				8.02	
	TOTAL				8205.82	X
	Add GST on “X-A” (multiplying factor 0.2127)				172.4	
	TOTAL				8378.22	Y
	Add 15% CPOH on “Y-A”				147.44	
	TOTAL				8525.66	Z
	Add Cess @ 1% on “Z-A”				11.3	
	Cost of 10 sqm				8536.96	
	Cost of 1 sqm				853.70	
	Say				853.70	

26.34.3 100mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm area (1.00cum) M25 concrete 1.00 cum of concrete@ 330 kg/cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC	cum	1.00	9860.40	9860.40	A
	Deduction of pumping charges					
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc	cum	-1.00	250.00	-250.00	
7914	SBR Polymer @2% of cement 330 kg = 330X2% = 6.6 kg	kg	6.60	200.00	1320.00	
	TOTAL				10930.40	W
	Add 1 % Water charges on “W-A”				10.7	
	TOTAL				10941.10	X
	Add GST on “X-A” (multiplying factor 0.2127)				229.86	
	TOTAL				11170.96	Y
	Add 15% CPOH on “Y-A”				196.58	
	TOTAL				11367.54	Z
	Add Cess @ 1% on “Z-A”				15.07	
	Cost of 10 sqm				11382.61	
	Cost of 1 sqm				1138.26	
	Say				1138.25	

26.35 Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honey-comb area of concrete/masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in-Charge.

(The payment shall be made on the basis of actual weight of approved grout injected.)

26.35.1 Stirrer mixed Acrylic Polymer of approved make @ 2% of weight of cement used) modified Cement slurry made with non shrink compound in concrete/RCC work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 kg Acrylic polymer mixed cement grout					
	MATERIAL					
7927	Acrylic Polymer chemical for cracks Considering 1 kg of cement grout mixed with non shrink polymer compound with cement @ 2% of cement	kg	2.00	35.00	70.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5156.00	515.60	
9977	Carriage of materials	L.S.	1.00	2.27	2.27	
9999	Injecting charges of Stirrer mixed polymer grout Gun, rubber, pipe and other accessories hire charges of plant, machinery including necessary fuel and transportation of site	L.S.	2250.00	2.27	5107.50	
	LABOUR					
0122	Foreman	day	1.00	897.00	897.00	
0157	Nozzleman	day	1.00	897.00	897.00	
0157	Pump Operator	day	1.00	897.00	897.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				8386.37	W
	Add 1 % Water charges on “W”				83.86	
	TOTAL				8470.23	X
	Add GST on “X” (multiplying factor 0.2127)				1801.62	
	TOTAL				10271.85	Y
	Add 15% CPOH on “Y”				1540.78	
	TOTAL				11812.63	Z
	Add Cess @ 1% on “Z”				118.13	
	Cost of 100 kg				11930.76	
	Cost of 1 kg				119.31	
	Say				119.30	

26.35.2 Stirrer mixed SBR Polymer (of approved make) modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100kg of SBR Polymer mixed cement grout					
	MATERIAL					
7914	SBR Polymer for crack	kg	2.00	200.00	400.00	
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5156.00	515.60	
9977	Carriage of materials	L.S.	1.00	2.27	2.27	
9999	Injecting charges of Stirrer mixed polymer grout Gun, rubber, pipe and other accessories hire charges of plant, machinery including necessary fuel and transportation of site Rs 4000/- per day including plant shall be used of doing approximate v Hence cost per sqm (4000/50 = 80)	L.S.	2250.00	2.27	5107.50	
	LABOUR					
0122	Foreman	day	1.00	897.00	897.00	
0157	Nozzle Operator	day	1.00	897.00	897.00	
0157	Pump Operator	day	1.00	897.00	897.00	
	TOTAL				8716.37	W
	Add 1 % Water charges on “W”				87.16	
	TOTAL				8803.53	X
	Add GST on “X” (multiplying factor 0.2127)				1872.51	
	TOTAL				10676.04	Y
	Add 15% CPOH on “Y”				1601.41	
	TOTAL				12277.45	Z
	Add Cess @ 1% on “Z”				122.77	
	Cost of 100 kg				12400.22	
	Cost of 1 kg				124.00	
	Say				124.00	

26.35.3 Epoxy injection grout in concrete/RCC work of approved make

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for10kg Epoxy grout					
	MATERIAL					
7913	Epoxy	kg	10.00	380.00	3800.00	
0092	Hire charges of Plant and machinery, it can inject - 350kg/day	day	0.03	250.00	7.50	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.06	736.00	44.16	
0157	Nozzle Operator	day	0.03	897.00	26.91	
9999	Sundries (gloves gogles etc.)	L.S.	5.00	2.27	11.35	
	TOTAL				3889.92	W
	Add 1 % Water charges on “W”				38.90	
	TOTAL				3928.82	X
	Add GST on “X” (multiplying factor 0.2127)				835.66	
	TOTAL				4764.48	Y
	Add 15% CPOH on “Y”				714.67	
	TOTAL				5479.15	Z
	Add Cess @ 1% on “Z”				54.79	
	Cost of 10 kg				5533.94	
	Cost of 1 kg				553.39	
	Say				553.40	

26.36 Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the Engineer-in-charge.

26.36.1 Wooven PVC cloth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	MATERIAL					
7915	Wooven PVC cloth	sqm	10.00	28.00	280.00	
9999	Fixing double scaffolding outside	L.S.	11.00	2.27	24.97	
	Total Material				304.97	
	LABOUR					
	For fixing and removal after complete of work @25%				76.24	
	TOTAL				381.21	W
	Add 1 % Water charges on “W”				3.81	
	TOTAL				385.02	X
	Add GST on “X” (multiplying factor 0.2127)				81.89	
	TOTAL				466.91	Y
	Add 15% CPOH on “Y”				70.04	
	TOTAL				536.95	Z
	Add Cess @ 1% on “Z”				5.37	
	Rate for 10 sqm				542.32	
	Rate for 1 sqm				54.23	
	Say				54.25	

26.37 Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	Machinery					
0089	Hire charges of sand blasting equipment (14 sqm per day)	day	0.70	450.00	315.00	
0090	Hire charges of compressor	day	0.70	550.00	385.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Material					
0982	Coarse sand (zone III)	cum	1.00	1450.00	1450.00	
2203	Carriage of coarse sand	cum	1.00	0.00	0.00	
	LABOUR					
0114	Beldar	day	0.70	736.00	515.20	
9999	Sundries	L.S.	10.00	2.27	22.70	
	TOTAL				2687.90	W
	Add 1 % Water charges on “W”				26.88	
	TOTAL				2714.78	X
	Add GST on “X” (multiplying factor 0.2127)				577.43	
	TOTAL				3292.21	Y
	Add 15% CPOH on “Y”				493.83	
	TOTAL				3786.04	Z
	Add Cess @ 1% on “Z”				37.86	
	Cost of 10 sqm				3823.90	
	Cost of 1 sqm				382.39	
	Say				382.40	

26.38 Shotcreting R.C.C. columns, beams and slabs etc. in layers with approved design mix concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10 mm maximum size in proportion as per design criteria] including the cost of centering and shuttering at edges and corners etc. as directed by Engineer- in-Charge

Note: Rates shall include the providing necessary ground wires etc. The levelling gauges, if used, shall be paid for separately. Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument.

26.38.1 25mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm M25 concrete 2.5 cum of concrete@ 330 kg/ cum Cubical qty of concrete for 100 sqm = 100x1.00x0.025 = 2.5 cum + Wastage 25%, = 2.5x25/100=0.625 cum. Total=3.125 cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC	cum	3.125	9860.40	30813.75	A
	Machinary					
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel (approx. 40 sqm area of shotcrete per day = 100/40 = 2.5 day)	day	2.500	4500.00	11250.00	
	Labour					
0157	Operator (Pile/ Special machine)	day	4.000	897.00	3588.00	
0154	Nozzel man/ gun man	day	4.000	897.00	3588.00	
0124	Mason 2nd class	day	4.000	816.00	3264.00	
0161	Helper (Technician)	day	8.000	736.00	5888.00	
0101	Bhisti	day	4.000	816.00	3264.00	
	TOTAL				61655.75	W
	Add 1 % Water charges on “W-A”				308.42	
	TOTAL				61964.17	X
	Add GST on “X-A” (multiplying factor 0.2127)				6625.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				68589.86	Y
	Add 15% CPOH on "Y-A"				5666.42	
	TOTAL				74256.28	Z
	Add Cess @ 1% on "Z-A"				434.43	
	Cost of 100 sqm				74690.71	
	Cost of 1 sqm				746.91	
	Say				746.90	

26.38.2 50mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	M25 concrete 0.5 cum of concrete@ 330 kg/ cum					
	Cubical qty of concrete for 10 sqm = 10x1.00x0.050 = 0.50 cum Wastage 25%, = 0.50x25/100=0.125 cum Total=0.625 cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC Machinary	cum	0.625	9860.40	6162.75	A
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel	day	0.400	4500.00	1800.00	
	(approx. 25 sqm area of shotcrete per day = 10/25 = 0.4 day)					
	Labour					
0157	Operator (Pile/ Special machine)	day	0.400	897.00	358.80	
0154	Nozzel man/ gun man	day	0.400	897.00	358.80	
0124	Mason 2nd class	day	0.400	816.00	326.40	
0161	Helper (Technician)	day	0.800	736.00	588.80	
0101	Bhisti	day	0.400	816.00	326.40	
	TOTAL				9921.95	W
	Add 1 % Water charges on "W-A"				37.59	
	TOTAL				9959.54	X
	Add GST on "X-A" (multiplying factor 0.2127)				807.58	
	TOTAL				10767.12	Y
	Add 15% CPOH on "Y-A"				690.66	
	TOTAL				11457.78	Z
	Add Cess @ 1% on "Z-A"				52.95	
	Cost of 10 sqm				11510.73	
	Cost of 1 sqm				1151.07	
	Say				1151.05	

26.38.3 75mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm					
	M25 concrete 7.5 cum of concrete@ 330 kg/ cum					
	Cubical qty of concrete for 100 sqm = 100x1.00x0.075 = 7.5 cum Wastage 25%, = 7.5x25/100=1.875 cum Total=9.375 cum					
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: RCC Machinary	cum	9.375	9860.40	92441.25	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel (approx. 15 sqm area of shotcrete per day = 100/15 = 6.65 day)	day	6.650	4500.00	29925.00	
	Labour					
0157	Operator (Pile/ Special machine)	day	4.000	897.00	3588.00	
0154	Nozzel man/ gun man	day	4.000	897.00	3588.00	
0124	Mason 2nd class	day	4.000	816.00	3264.00	
0161	Helper (Technician)	day	8.000	736.00	5888.00	
0101	Bhisti	day	4.000	816.00	3264.00	
	TOTAL				141958.25	W
	Add 1 % Water charges on “W-A”				495.17	
	TOTAL				142453.42	X
	Add GST on “X-A” (multiplying factor 0.2127)				10637.59	
	TOTAL				153091.01	Y
	Add 15% CPOH on “Y-A”				9097.46	
	TOTAL				162188.47	Z
	Add Cess @ 1% on “Z-A”				697.47	
	Cost of 100 sqm				162885.94	
	Cost of 1 sqm				1628.86	
	Say				1628.85	

26.39 Providing and inserting 12mm dia galvanised steel injection nipple in honey comb area and along crack line including drilling of holes of required diametre (20mm to 30mm) up to depth from 30mm to 80mm at required spacing and making the hole & crack dust free by blowing compressed air, sealing the distance between injection nipple with adhesive chemical of approved make and allow it to cure complete as per direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20.00 Nos Hole					
	MATERIAL					
7921	Adhesive chemical (750 mm deep & 20 mm Dia Hole) Volume of hole =20x(3.14/4) x2.00x2.00x7.5=471 cub cm. Adhesive @ 40% of 471 ml=188.40 ml, Say 188 ml	ml	188.00	2.00	376.00	
7922	Bit of drilling machine for Hole upto 30mm dia (One Bit done 20 Holes only)	each	1.00	550.00	550.00	
7923	GI injection nipple 12mm dia, 75mm long	each	20.00	50.00	1000.00	
7924	Blowing compressed air for cleaning holes upto 30mm dia	each	20.00	10.00	200.00	
	LABOUR					
0155	Mason (average)	day	0.50	857.00	428.50	
0115	Coolie	day	0.50	736.00	368.00	
0101	Bhisti	day	0.50	816.00	408.00	
	TOTAL				3330.50	W
	Add 1 % Water charges on “W”				33.31	
	TOTAL				3363.81	X
	Add GST on “X” (multiplying factor 0.2127)				715.48	
	TOTAL				4079.29	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				611.89	
	TOTAL				4691.18	Z
	Add Cess @ 1% on "Z"				46.91	
	Cost of 20 Nos hole				4738.09	
	Cost of 1 hole				236.90	
	Say				236.90	

26.40 Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 sqm (i.e 77.50 kg.)					
	MATERIAL					
7925	L shaped 100mm long, 10mm dia mild steel shear key key to be provided at 0.5 mtr centre to centre in each direction Total no. of Shear key of MS Bar in 10sqm = 25 nos 25x0.10x0.617=1.55 kg	kg	1.55	90.00	139.50	
0091	Welding charges of shear key to existing reinforcement	each	25.00	5.00	125.00	
1021	Hard drawn steel wire fabric 75x25mm, weight 7.75kg/sqm 75x25 mm = 10.00 sqm + Add 5% wastage = 0.50 sqm Total = 10.50 sqm	sqm	10.50	430.00	4515.00	
9977	Carriage at site	L.S.	5.61	2.27	12.73	
	LABOUR					
0103	Blacksmith 2nd class	day	1.00	816.00	816.00	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				6344.23	W
	Add 1 % Water charges on "W"				63.44	
	TOTAL				6407.67	X
	Add GST on "X" (multiplying factor 0.2127)				1362.91	
	TOTAL				7770.58	Y
	Add 15% CPOH on "Y"				1165.59	
	TOTAL				8936.17	Z
	Add Cess @ 1% on "Z"				89.36	
	Cost of 10 sqm				9025.53	
	Cost of 1 sqm				902.55	
	Say				902.55	

26.41 Designing, providing, installing and fixing factory finished custom designed cold form Light Gauge Steel Framed super structure comprising of steel wall panel, trusses, purlins etc manufactured out of minimum 0.75 mm thick steel sheet as per design requirements. The steel sheet shall be galvanized (AZ-150gms Aluminium Zinc Alloy coated steel having minimum yield strength 300-550 Mpa) conforming to AISI specifications and IBC 2009 for cold formed steel framing and construction and also as per IS: 875-1987, ISO 800-1984 and IS:801- 1975. The wind load shall be as per provisions of IS 875 (part -III). LGSFS frame shall be designed as per IS: 801 using commercially available software such as Frame CAD Pro-11.7/ STAAD PRO-V8i/ArchitekV2.5.16/ Revit architecture-2011 or equivalent. Proper usage of Connection Accessories like Heavy Duty Tension Ties, Light Duty Hold-ons, Twist Straps (to connect truss with wall frames), Strong Tie, Tie Rod, H-Brackets, Boxing Sections, L-Shaped Angles for better structural stability. The framing section shall be cold form C-type having minimum web depth 89 mm x 39mm flange x 11mm lip in required length as per structural design requirement duly punched with dimple/slot at required locations as per approved drawings. The slots will be along centre line of webs and shall be spaced minimum 250mm away from both ends of the member. The frame can be supplied in panelized or knock down condition in specific dimensions and fastened with screws extending through the steel beyond by minimum of three exposed threads. All self drilling tapping screws for joining the members shall have a Type II coating in accordance with ASTM B633(13) or equivalent corrosion protection of gauge 10 & 12, TPI 16 & 8 of length 20mm. The frames shall be fixed to RCC slab or Tie beam over Neoprene rubber using self expanding carbon steel anchor bolt of dia as per approved drawings. design subject to minimum 12mm diameter and 121mm length conforming to AISI 304 and 316 at 500mm c/c with minimum embedment of 100mm in RCC (RCC to be paid separately) and located not more than 300mm from corners or termination of bottom tracks complete in all respects. The item also includes the submission of stability reports duly examined and issued by any NIT/IIT. The rate includes the concept design, detailed design, fabrication of sections, transportation, installation and all required fixing arrangement at site as described above.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.00 Kg					
	MATERIAL					
8579	Cold form light gauge Steel C-section of thickness 0.75mm i/c zink coating/sliting etc. = 1.00 + 0.05 (Add for wastage @5%) = 1.05 kg	kg	1.050	160.00	168.00	
9977	Carriage	L.S.	1.685	2.27	3.82	
	Deduct for					
8580	Scrap value wastage of cold form light gauge steel	kg	-0.050	22.00	-1.10	
	Labour for assembling/ fixing etc					
0103	Blacksmith 2nd class	day	0.010	816.00	8.16	
0114	Beldar	day	0.030	736.00	22.08	
	TOTAL				200.96	W
	Add 1 % Water charges on “W”				2.01	
	TOTAL				202.97	X
	Add GST on “X” (multiplying factor 0.2127)				43.17	
	TOTAL				246.14	Y
	Add 15% CPOH on “Y”				36.92	
	TOTAL				283.06	Z
	Add Cess @ 1% on “Z”				2.83	
	Cost for 1.00 kg				285.89	
	Say				285.90	

26.42 Providing and fixing of external wall system on Light gauge steel frame work with outer face cement boards as per standard sizes fixed with self- drilling / taping screws / fasteners @ 60cm c/c of approved make. A groove of 2 mm to 3mm shall be maintained and grooves shall be sealed with silicon based sealant. The board shall be fixed in a staggered pattern. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm and. Internal face 12.5 mm thick gypsum plaster board fixed on cement board as per standard sizes fixed with self- drilling / taping screws / fasteners @ 60cm c/c of approved make, proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately)

26.42.1 Outer face- Outer face having 6mm thick fiber cement board Type A, Category-IV as per IS:14862:2000 fixed on 9mm thick fiber cement board, Type A, Category-IV as per IS:14862:2000 (high pressure steam cured) Inner Face- 12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick fibre cement board of Type B, Category-III as per IS:14862:2000 (High pressure steam cured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10.00 Sqm					
	MATERAILS					
	Outer face:					
0238	6mm thick Type A, Category IV as per IS:14862:2000 fiber cement board 1x10 =10 Sqm + 1.00 (Add for wastage @ 10%) Total = 11.00 Sqm	Sqm	11.00	470.00	5170.00	
2636	GI Screws of Gauge 10, length 45 mm for fixing cement fibre board to C section.	each	40.00	3.10	124.00	
0240	9 mm thick Type A, Category IV as per IS:14862:2000 fiber cement board 1x10=10 sqm +1 sqm (Add for wastage @10%) Total = 11.00 sqm	Sqm	11.00	625.00	6875.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement fibre board to C section Tapping and finishing Cement board joints	each	40.00	3.15	126.00	
Sub A/R 1	Filling the Grove of 2 mm to 3 mm between 6 mm and 9 mm thick cement bonded particle boards.	Sqm	10.00	92.85	928.50	
	Inner face :					
0237	Multi purpose fibre (high impact poly propelene reinforced) cement board 8 mm thick Type B, Category III as per IS:14862:2000 fiber cement board 1x10 = 10 sqm +1.00 (Add for wastage @ 10%) Total = 11.00 Sqm.	Sqm	11.00	220.00	2420.00	
2636	GI screw of gauge 10, length 45 mm for fixing cement bonded particle board to C section	each	40.00	3.10	124.00	
7009	12.5 mm thick tapered edge gypsum plain board 1x10 =10 sqm +1.00 (Add for wastage @10%) Total = 11.00 sqm.	Sqm	11.00	140.00	1540.00	
2635	GI Screws of Gauge 10, length 25 mm for Gypsum board to C section.	each	40.00	3.15	126.00	
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick heavy duty cement fibre board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	243.75	2437.50	
	LABOUR					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	For cutting and fixing of cement and gypsum board					
0112	Carpenter 2nd class	day	2.00	714.00	1428.00	
0114	Beldar	day	6.00	645.00	3870.00	
	TOTAL				25169.00	W
	Add 1 % Water charges on “W”				251.69	
	TOTAL				25420.69	X
	Add GST on “X” (multiplying factor 0.2127)				5406.98	
	TOTAL				30827.67	Y
	Add 15% CPOH on “Y”				4624.15	
	TOTAL				35451.82	Z
	Add Cess @ 1% on “Z”				354.52	
	Cost of 10 sqm				35806.34	
	Cost of 1 sqm				3580.63	
	Say				3580.65	

26.42.1 A Outer face- Outer face having 6mm thick fiber cement board Type A, Category-III as per IS:14862:2000 fixed on 9mm thick fiber cement board Type A, Category-III, as per IS:14862:2000 (high pressure steam cured) Inner Face- 12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick fibre cement board of Type B, Category-III, as per IS:14862:2000 (High pressure steam cured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10.00 Sqm					
	MATERAILS					
	Outer face :					
0251	6mm thick Type A, Category III as per IS:14862:2000 fiber cement board 1x10 =10 Sqm + 1.00 (Add for wastage @ 10%) Total = 11.00 Sqm	Sqm	11.00	244.00	2684.00	
2636	GI Screws of Gauge 10, length 45 mm for fixing cement bonded particle board to C section.	each	40.00	3.10	124.00	
0252	9 mm thick Type A, Category III as per IS:14862:2000 fiber cement board 1x10=10 sqm +1 sqm (Add for wastage @10%) Total = 11.00 sqm	Sqm	11.00	366.00	4026.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints	each	40.00	3.15	126.00	
Sub A/R 1	Filling the Groove of 2mm to 3 mm between 8 mm and 10 mm thick cement bonded particle boards.	Sqm	10.00	92.85	928.50	
	Inner face :					
0237	Multi purpose fibre (high impact poly propelene reinforced) cement board 8 mm thick Type B, Category III as per IS:14862:2000 fiber cement board 1x10 = 10 sqm +1.00 (Add for wastage @ 10%) Total = 11.00 Sqm.	Sqm	11.00	220.00	2420.00	
2636	GI screw of gauge 10, length 45 mm for fixing cement bonded particle board to C section.	each	40.00	3.10	124.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7009	12.5 mm thick tapered edge gypsum plain board 1x10 =10 sqm +1.00 (Add for wastage @10%) Total = 11.00 sqm.	Sqm	11.00	140.00	1540.00	
2635	GI Screws of Gauge 10, length 25 mm for Gypsum board to C section.	each	40.00	3.15	126.00	
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	243.75	2437.50	
	LABOUR					
	For cutting and fixing of cement and gypsum board					
0112	Carpenter 2nd class	day	2.00	714.00	1428.00	
0114	Beldar	day	6.00	645.00	3870.00	
	TOTAL				19834.00	W
	Add 1 % Water charges on “W”				198.34	
	TOTAL				20032.34	X
	Add GST on “X” (multiplying factor 0.2127)				4260.88	
	TOTAL				24293.22	Y
	Add 15% CPOH on “Y”				3643.98	
	TOTAL				27937.20	Z
	Add Cess @ 1% on “Z”				279.37	
	Cost of 10 sqm				28216.57	
	Cost of 1 sqm				2821.66	
	Say				2821.65	

26.42.2 Outer face: Outer face having 8 mm thick cement bonded particle Board fixed on 10 mm thick cement bonded particle board. (Termite, Fire and Moisture Resistance) as per IS 14276:1995. Inner face:-12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick cement bonded particle board (Termite, fire and moisture resistance) conforming to IS:14276:1995)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 10.00 Sqm					
	MATERAILS					
	Outer face :					
0243	8mm thick Cement bonded particle board 1x10 =10 Sqm + 1.00 (Add for wastage @ 10%) Total = 11.00 Sqm	Sqm	11.00	230.00	2530.00	
2636	GI Screws of Gauge 10, length 45 mm for fixing cement bonded particle board to C section.	each	40.00	3.25	130.00	
0249	10 mm thick Cement Bonded particle board 1x10=10 sqm +1 sqm (Add for wastage @10%) Total = 11.00 sqm	Sqm	11.00	500.00	5500.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints	each	40.00	3.30	132.00	
Sub A/R 1	Filling the Groove of 2mm to 3 mm between 8 mm and 10 mm thick cement bonded particle boards.	Sqm	10.00	95.40	954.00	
	Inner face :					
0243	8 mm thick cement bonded particle board 1x10 = 10 sqm +1.00 (Add for wastage @ 10%) Total = 11.00 Sqm.	Sqm	11.00	230.00	2530.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2636	GI screw of gauge 10, length 45 mm for fixing cement bonded particle board to C section.	each	40.00	3.25	130.00	
7009	12.5 mm thick tapered edge gypsum plain board 1x10 =10 sqm +1.00 (Add for wastage @10%) Total = 11.00 sqm.	Sqm	11.00	154.00	1694.00	
2635	GI Screws of Gauge 10, length 25 mm for Gypsum board to C section.	each	40.00	3.30	132.00	
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	248.75	2487.50	
	LABOUR					
	For cutting and fixing of cement and gypsum board					
0112	Carpenter 2nd class	day	2.00	816.00	1632.00	
0114	Beldar	day	6.00	736.00	4416.00	
	TOTAL				22267.50	W
	Add 1 % Water charges on “W”				222.68	
	TOTAL				22490.18	X
	Add GST on “X” (multiplying factor 0.2127)				4783.66	
	TOTAL				27273.84	Y
	Add 15% CPOH on “Y”				4091.08	
	TOTAL				31364.92	Z
	Add Cess @ 1% on “Z”				313.65	
	Cost of 10 sqm				31678.57	
	Cost of 1 sqm				3167.86	
	Say				3167.85	

Sub A/R-1 Filling the groove (i.e. 2-3mm gap between boards),taping and jointing of the first layer 6mm and 9mm thick fiber cement boards with epoxy based sealing compound or with silicon sealant. Second layer is fixed over it in a staggered pattern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	MATERIAL					
1248	Epoxy based sealing Compound	kg	1.400	535.00	749.00	
	LABOUR					
0112	Carpenter 2nd class	day	0.132	816.00	107.71	
0114	Beldar	day	0.132	736.00	97.15	
	Cost of 10 sqm				953.86	
	Cost of 1 sqm				95.39	
	Say				95.40	

Sub A/R-2 **Fill the groove (i.e. 2-3mm gap between boards),taping and jointing 8mm thick fiber cement board and 12.5mm thick gypsum plaster boards with epoxy based sealing compound, Acrylic based sealing compound, Non woven reinforcement Tape as per direction of Engineer in charge.(Use a flexible knife so that no air bubble is entrapped. Allow 1-2 hours gap. Once hard tacky or set, apply a coat of Acrylic based sealing compound paste to flash fill the beveled area. After 2-4 hours go on to repeat a skin coat with Acrylic based sealing compound to securely embed the 40mm width (non woven reinforcement Tape. Use only flexible steel knife, such as provided with packs, to avoid air entrapment within compound. After overnight drying shrinkage apply a coat of acrylic based sealing compound to compensate shrinkage. Finally cover the bevel portion with any suitable overall skin coat with a desired full surface-leveler material).**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 Sqm					
	MATERIAL					
1248	Epoxy based sealing Compound	kg	0.140	535.00	74.90	
1249	Acrylic based sealing compound	kg	0.260	500.00	130.00	
1250	Non woven reinforcement Tape	metre	25.000	0.14	3.50	
	LABOUR					
0112	Carpenter 2nd class	day	0.026	816.00	21.22	
0114	Beldar	day	0.026	736.00	19.14	
	Cost of 1 sqm				248.76	
	Say				248.75	

26.43 **Providing and fixing internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on cement board as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately**

26.43.1 **Cement Fiber Board 8 mm thick of Type B, Category III as per IS 14862:2000 (High pressure Steam Cured)**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	Material					
0237	Multi purpose fibre (high impact poly propelene reinforced) cement board 8 mm thick Type B, Category III as per IS 14862:2000 fiber cement board 2x10=20 sqm + 2.00 (Add for wastage @10 %) = 22.00 sqm	Sqm	22.00	240.00	5280.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement fiber board to C section Tapping and finishing Cement board joints.	each	80.00	3.30	264.00	
0241	12.5 mm thick Gypsum plaster board 2x10 = 20 sqm + 2.00(Add for wastage @ 10%) = 22.00 sqm	Sqm	22.00	180.00	3960.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement fiber board to C section Tapping and finishing Cement board joints.	each	80.00	3.30	264.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board. LABOUR (For cutting & fixing cement board and Gypsum board)	Sqm	10.00	248.75	2487.50	
0112	Carpenter 2nd class	day	1.11	816.00	905.76	
0114	Beldar	day	3.33	736.00	2450.88	
	TOTAL				15612.14	W
	Add 1 % Water charges on “W”				156.12	
	TOTAL				15768.26	X
	Add GST on “X” (multiplying factor 0.2127)				3353.91	
	TOTAL				19122.17	Y
	Add 15% CPOH on “Y”				2868.33	
	TOTAL				21990.50	Z
	Add Cess @ 1% on “Z”				219.91	
	Cost of 10 sqm				22210.41	
	Cost of 1 sqm				2221.04	
	Say				2221.05	

26.43.2 Cement Bonded particle board 8 mm (Termite, Fire & Moisture Resistance), as per IS:14276: 1995

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	Material					
0243	8 mm thick cement bonded particle board 2x10=20 sqm + 2.00 (Add for wastage @10 %) = 22.00 sqm	Sqm	22.00	230.00	5060.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints.	each	80.00	3.30	264.00	
0241	12.5 mm thick Gypsum plaster board 2x10 = 20 sqm + 2.00(Add for wastage @ 10%) = 22.00 sqm	Sqm	22.00	180.00	3960.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints.	each	80.00	3.30	264.00	
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board. LABOUR (For cutting & fixing cement board and Gypsum board)	Sqm	10.00	248.75	2487.50	
0112	Carpenter 2nd class	day	1.11	816.00	905.76	
0114	Beldar	day	3.33	736.00	2450.88	
	TOTAL				15392.14	W
	Add 1 % Water charges on “W”				153.92	
	TOTAL				15546.06	X
	Add GST on “X” (multiplying factor 0.2127)				3306.65	
	TOTAL				18852.71	Y
	Add 15% CPOH on “Y”				2827.91	
	TOTAL				21680.62	Z
	Add Cess @ 1% on “Z”				216.81	
	Cost of 10 sqm				21897.43	
	Cost of 1 sqm				2189.74	
	Say				2189.75	

26.44 Providing and fixing in all exterior face panels breathable vapour barrier underneath the cement fiber board as per National Building Code 2009 complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10.00 Sqm					
	MATERIAL					
2637	Vapour barrier	sqm	11.000	184.00	2024.00	
	10.00 sqm + 1.00 sqm (Add for wastage @10%) = 11.00 sqm					
	LABOUR					
	For fixing10 sqm vapour barrier					
0112	Carpenter 2nd class	day	0.049	816.00	39.98	
0114	Beldar	day	0.049	736.00	36.06	
	TOTAL				2100.04	W
	Add 1 % Water charges on “W”				21.00	
	TOTAL				2121.04	X
	Add GST on “X” (multiplying factor 0.2127)				451.15	
	TOTAL				2572.19	Y
	Add 15% CPOH on “Y”				385.83	
	TOTAL				2958.02	Z
	Add Cess @ 1% on “Z”				29.58	
	Cost of 10 sqm				2987.60	
	Cost of 1.00 sqm				298.76	
	Say				298.75	

26.45 Supplying and installation of moisture resistant/fire resistant cement board as per standard sizes fixed with self-drilling / taping screws. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm.

26.45.1 Cement Fiber Board 6 mm thick as per IS 14862:2000 of type B (High pressure Steam Cured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	Material					
0238	6 mm thick fibre cement board 10 sqm +1 sqm (Add for wastage @10%)=11.00 sqm	Sqm	11.00	510.00	5610.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement fibre board to C section Tapping and finishing Cement board joints	each	40.00	3.30	132.00	
Sub A/R 1	Filling the Grove of 2 mm to 3 mm between 6 mm and 10 mm thick cement bonded particle boards.	Sqm	10.00	95.40	954.00	
	LABOUR					
	For cutting and fixing of Cement & gypsum board					
0112	Carpenter 2nd class	day	1.11	816.00	905.76	
0114	Beldar	day	3.33	736.00	2450.88	
	TOTAL				10052.64	W
	Add 1 % Water charges on “W”				100.53	
	TOTAL				10153.17	X
	Add GST on “X” (multiplying factor 0.2127)				2159.58	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				12312.75	Y
	Add 15% CPOH on “Y”				1846.91	
	TOTAL				14159.66	Z
	Add Cess @ 1% on “Z”				141.60	
	Cost of 10 sqm				14301.26	
	Cost of 1 sqm				1430.13	
	Say				1430.15	

26.45.2 Cement Bonded particle board 8 mm thick (Termite, Fire & Moisture Resistance), as per IS:14276 : 1995

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 Sqm					
	Material					
0243	8 mm thick cement bonded particle board 10 sqm +1 sqm (Add for wastage @10%)=11.00 sqm	Sqm	11.00	230.00	2530.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints	each	40.00	3.30	132.00	
Sub A/R 1	Filling the Grove of 2 mm to 3 mm between 6 mm and 10 mm thick cement bonded particle boards.	Sqm	10.00	95.40	954.00	
	LABOUR					
	For cutting and fixing of Cement & gypsum board					
0112	Carpenter 2nd class	day	1.11	816.00	905.76	
0114	Beldar	day	3.33	736.00	2450.88	
	TOTAL				6972.64	W
	Add 1 % Water charges on “W”				69.73	
	TOTAL				7042.37	X
	Add GST on “X” (multiplying factor 0.2127)				1497.91	
	TOTAL				8540.28	Y
	Add 15% CPOH on “Y”				1281.04	
	TOTAL				9821.32	Z
	Add Cess @ 1% on “Z”				98.21	
	Cost of 10 sqm				9919.53	
	Cost of 1 sqm				991.95	
	Say				991.95	

26.46 Providing and fixing in position, 200 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shortcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree) . The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} À with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100Kn/m2) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.20x3.00m= 3.60 sqm					
	MATERIAL					
8013	Factory made EPS Core wallpanel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh,with 50 mm pitch in both the directions, kept at 120-135 mm gap and interconnected by the zig zag G.I. wire of 3 mm dia at alternate row by welding. 3.60 sqm + 0.18 sqm (Add for wastage @5%)Total = 3.78 sqm	sqm	3.78	1708.00	6456.24	
9999	Add for L-shape,U-shape & straight lap mesh	L.S.	208.00	2.27	472.16	
	Cement mortar 1:3 (1cement:3 coarse sand) 2x1.20x3.00x0.05= 0.36 cum					
3.8	Rate as per Item No.3.8 of SH: Mortar	cum	0.36	4881.95	1757.50	
	10 mm TMT bars (2 nos.75 mm long)					
	Aluminium C-channels (100mmx150mm long)					
9999	For fixing wall with foundation	L.S.	312.15	2.27	708.58	
	LABOUR					
9999	For carrying out shotcreting, shoring, leveling, and finishing the surface with trowel.	L.S.	707.50	2.27	1606.03	
	TOTAL				11000.51	W
	Add 1 % Water charges on “W”				110.01	
	TOTAL				11110.52	X
	Add GST on “X” (multiplying factor 0.2127)				2363.21	
	TOTAL				13473.73	Y
	Add 15% CPOH on “Y”				2021.06	
	TOTAL				15494.79	Z
	Add Cess @ 1% on “Z”				154.95	
	Cost of 3.60 sqm				15649.74	
	Cost of 1 sqm				4347.15	
	Say				4347.15	

26.47 Providing and fixing in position, 230mm thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of panel, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20kg/ per cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1: 3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} À with the help of shotcreting equipment etc at a pressure of not less than 1 bar (100Kn/ m2) and surface finished with trowel. The top face of the panel shall be provided and finished by applying 70-75 mm thick layer of cement concrete 1:1.5: 3 (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size). Fixing operations of roof/floor panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.20x3.00m= 3.60 sqm					
	MATERIAL					
8013	Factory made EPS Core wallpanel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh,with 50 mm pitch in both the directions, kept at 120-135 mm gap and interconnected by the zig zag G.I. wire of 3 mm dia at alternate row by welding. sqm 3.78 3.60 sqm + 0.18 sqm (Add for wastage @5%)Total = 3.78 sqm	sqm	3.780	1708.00	6456.24	
	Cement mortar 1:3 (1cement:3 coarse sand) 60mm thick on the bottom of roof slab =1x1.2x3.00x0.060= 0.216cum					
3.8	Rate as per Item No.3.8 of SH: Mortar	cum	0.216	4881.95	1054.50	
	Cement concrete 1:1.5:3 70mm thick on the top of roof slab =1x1.20x3.00x0.07= 0.252 cum					
5.3	Rate as per Item No.5.3 of SH: Reinforced Cement Concrete	cum	0.252	11505.50	2899.39	A
9999	Add for L-shape, U-shape & straight lap mesh	L.S.	202.320	2.27	459.27	
	LABOUR					
9999	For providing concreting, shotcreting, shoring, leveling, plastering and finishing the surface with trowel.	L.S.	832.360	2.27	1889.46	
	TOTAL				12758.86	W
	Add 1 % Water charges on “W-A”				98.59	
	TOTAL				12857.45	X
	Add GST on “X-A” (multiplying factor 0.2127)				2118.08	
	TOTAL				14975.53	Y
	Add 15% CPOH on “Y-A”				1811.42	
	TOTAL				16786.95	Z
	Add Cess @ 1% on “Z-A”				138.88	
	Cost of 3.60 sqm				16925.83	
	Cost of 1 sqm				4701.62	
	Say				4701.60	

26.48 Providing and fixing of customized Aluminium form work for monolithic construction on RCC members with repetitive usage made up of aluminium sheets/plates of minimum 4mm thickness and grade 6061 (Type-6). The formwork comprises of (a) wall panel, roccker, kicker and internal soffit corner, external soffit corner, external corner, internal corner etc., (b) beam components i.e, beam side panel, prop head for soffit beam, beams soffit panel, beam soffit bulk head and (c) deck components i.e. deck panel, deck prop, prop length, deck mid, soffit length, deck beam bar. The panels are held in position by a simple pin and wedge system that passes thorugh holes in the out side rib of each panel. The tolerance of finished panel shall not be less than (-1 mm) and shall conform to IS 14987-1999. Pins and wedges to be made of high grade hot dipped galvansied mild steel. This form work also comprises of M.S. angle iron, "Z" shaped brackets braced diagonally at 0.90 to 1.00 metre centre to centre on extrenal wall face just the level below on which to lay M.S. square tube panels (Challis) and guard railing supports to form working platform and 40 mm dia G.I./M.S. telescopic adjustable props to support deck formwork and beam soffit panels including de-shuttering the formwork from odd/even level to be shifted/lifted to next alterante odd/even level before which the points and shuttering surface to be thoroughly cleaned, pins greasing and shuttering surface oiling propoerly before fixing all complete including sealing of gap between kicker plates of wall panel and floors (if any) as per design of formwork as provided by shuttering supplier and as per direction of the Engineer-in-charge including filling and finishing the holes of varied sizes and shapes (left by keys/pins of aluminium form work shuttering while de-shuttering) with GP-2 cementitious polymer compound mixed with water in ratio prescribed by manufacturer to form consistent workable enough for pushing it in the holes upto full depth of wall using appropriate tools and finishing smooth all complete as per directions of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 sqm (Assuming 100 repetitions)					
	MATERIAL					
	Aluminium formwork & MS working platform 100 sqm					
Sub A/R-1	Cost for using once	100 sqm	1.00	12805.90	12805.90	A
Sub A/R-3	Deduct salvage value of aluminium form work and working platform with 100 repetitions @30% of bare material cost using once (marked as ' S ' below)				-2120.35	
5772	Grease to be applied to pins for 100 sqm @ 5pins/sqm. using 25gm grease /pin = 100x5x25 gm = 12.50 Kg	Kg	12.50	195.00	2437.50	
9999	Add replacement of lost/ damaged accessories	L.S.	98.85	2.27	224.39	
5773	Shuttering oil for panels @ 20sqm /ltr = 100/20 = 5.00 ltr	litre	5.00	95.00	475.00	
9999	Add sundries for gaps filling with sealants etc. and T& P including pully, ropes and misc. tools	L.S.	400.00	2.27	908.00	
9999	Add for PVC sleeve and plastic cover for wall ties	L.S.	500.00	2.27	1135.00	
	LABOUR					
0116	Fitter	day	5.00	897.00	4485.00	
0117	Assistant Fitter	day	5.00	816.00	4080.00	
0155	Mason (Average)	day	2.00	857.00	1714.00	
0114	Beldar	day	10.00	736.00	7360.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
Sub A/R-2	Add for filling and finishing the holes of aluminium form work with GP-2	each	225.00	9.00	2025.00	
	TOTAL				35529.44	W
	Add 1 % Water charges on “W-A”				227.24	
	TOTAL				35756.68	X
	Add GST on “X” (multiplying factor 0.2127)				4881.63	
	TOTAL				40638.31	Y
	Add 15% CPOH on “Y-A”				4174.86	
	TOTAL				44813.17	Z
	Add Cess @ 1% on “Z-A”				320.07	
	Cost of 100.00 sqm				45133.24	
	Cost of 1.00 sqm				451.33	
	Say				451.35	

Sub A/R-1

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Material cost Part-1 : Aluminium formwork 4mm thick sheet of aluminium alloy grade 6061 (type-6) for the contact face area of 100 sqm the sheet/plate requirement including framing flanges and specials = 100 + 120 = 220 sqm 220 sqm @ 10.72 kg/sqm = 2358.40 Kg Add 5% extra waste = 117.92 Kg Total = 2358.40 + 117.82 = 2476.32 Kg					
5780	4mm thick sheet of aluminium alloy grade 6061 (type-6) for aluminuum formwork Aluminium formwork weight without wastage = 2358.40 Kg	Kg	2476.32	260.00	643843.20	E
5781	Fabrication cost for formwork panels and special including computerised designing for fabrication and mock testing before transportation to site of work.	Kg	2358.40	37.00	87260.80	
	Accossories like pins, wedges and wall ties @ 5% of (E)				32192.16	
	Add cost towards maintenance and time to time repalcement of damaged members @5% (E)				32192.16	
5782	Packaging and carting of aluminium sheet/plate to the site of work	Tonne	2.36	5400.00	12744.00	
	Part-2: M S working platform on external face (required while fixing & removing)					
10.2	M.S angle iron bracket of size 50x50x6 mm (Rate i/c priming coat) 10x6.00 mtr @ 4.50 Kg/mtrs = 270 Kg (Rate as per item no 10.2 SH:10 Steel work}	Kg	270.00	133.70	36099.00	A
10.16.1	M.S. Square tube panel of tubes 25x25mm, 1.8mm thick (Rate i/c priming coat) 7x2x11.45 = 160mtr + 45 mtr (railing guards) = 205 mtr @ 1.25 Kg/mtr = 256.25 Kg (Rate as per item no.10.16.1 SH:10 Steel work)	Kg	256.25	194.40	49815.00	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7343	Telescopic adjustabe props 3 m (2.02-3.75 m)	each	30.00	1051.00	31530.00	
	TOTAL				925676.32	W
	Add 1 % Water charges on “W-A”				8397.62	
	TOTAL				934073.94	X
	Add GST on “X-A” (multiplying factor 0.2127)				180403.62	
	TOTAL				1114477.56	Y
	Add 15% CPOH on “Y-A”				154284.53	
	TOTAL				1268762.09	Z
	Add Cess @ 1% on “Z-A”				11828.48	
	Cost of 100 sqm for 100 Uses				1280590.57	
	Cost of 100 sqm using Once				12805.91	
	Say				12805.90	

Sub A/R-3 **Details of Bare cost of material**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5783	M S working platform for aluminium form-work	Kg	270.00	48.00	12960.00	
4009	M S tube panel	Kg	256.25	72.00	18450.00	
7343	Telescopic adjustabe props 3 m (2.02-3.75 m)	each	30.00	1051.00	31530.00	
5780	Aluminium formwork material cost (same as ‘ E ‘ above)	Kg	2476.32	260.00	643843.20	
	Total Bare cost of material for 100 uses				706783.20	
	Bare cost of material of 100 sqm using Once				7067.83	S

Sub A/R - 2 **Filling and finishing the holes of varies sizes and shades (left by keys/pins of aluminium formwork shuttering while de-shuttering) with GP-2 cementitious polymer compound mixed with water in ratio prescribed by manufacturer to form consistent workable enough for pushing it in the holes upto full depth of wall using appropriate tools and finishing smooth all complete as per directions of the Engineer-in-charge.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 110 holes (Assuming 100 to 120 nos holes of 0.0001cum to 0.00008 cum size can be filled with 8 kg (i/c wastage) of GP-2 com-pound)					
	Material					
5774	GP-2 cementitious compound	Kg	8.00	22.00	176.00	
	Labour					
0124	Mason 2nd class	day	0.45	816.00	367.20	
0114	Beldar	day	0.45	736.00	331.20	
9999	Sundries for T&P and scaffolding etc.	L.S.	50.00	2.27	113.50	
	Cost of 110 Nos holes				987.90	
	Cost of each hole				8.98	
	say				9.00	

26.49 Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core panels made of core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum) adhesive, cement, sand, flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fiber cement board conforming to IS 14862:2000 or Calcium silicate board conforming to EN 14306:2009 of 5mm thick each. Panel shall be laid on 6mm thick cement mortar (1 cement: 2 fine sand) mixed with chemical adhesive of 0.5kg per 50kg of cement or shall be preferably fixed into 'C' channel made of 1.2mm thick MS plate screwed/fastenened to the slab/column/beam etc. The panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "C channel" which will be paid seperately).

26.49.1 Non load bearing panels 50mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm) MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
7996	Factory made EPS light weight composite sandwitched wall/roof panel (50mm thick) having core material of EPS granule balls/ beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board conforming to IS 14862:2000 or Calcium silicate board conforming to EN 14306:2009 of 5mm thick each	sqm	10.50	760.00	7980.00	
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.27	83.99	
	LABOUR For fixing, aligning, locking the panels					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				9248.49	W
	Add 1 % Water charges on "W"				92.48	
	TOTAL				9340.97	X
	Add GST on "X" (multiplying factor 0.2127)				1986.82	
	TOTAL				11327.79	Y
	Add 15% CPOH on "Y"				1699.17	
	TOTAL				13026.96	Z
	Add Cess @ 1% on "Z"				130.27	
	Cost of 10 sqm				13157.23	
	Cost of 1sqm				1315.72	
	Say				1315.70	

26.49.2 Non load bearing panels 60mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
7997	Factory made EPS light weight composite sandwitched wall/roof panel (60mm thick) having core material of EPS granule balls/ beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board conforming to IS 14862:2000 or Calcium silicate board conforming to EN 14306:2009 of 5mm thick each	sqm	10.50	875.00	9187.50	
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.27	83.99	
	LABOUR					
	For fixing, aligning, locking the panels					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				10455.99	W
	Add 1 % Water charges on “W”				104.56	
	TOTAL				10560.55	X
	Add GST on “X” (multiplying factor 0.2127)				2246.23	
	TOTAL				12806.78	Y
	Add 15% CPOH on “Y”				1921.02	
	TOTAL				14727.80	Z
	Add Cess @ 1% on “Z”				147.28	
	Cost of 10 sqm				14875.08	
	Cost of 1sqm				1487.51	
	Say				1487.50	

26.49.3 Non load bearing panels 75mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
7998	Factory made EPS light weight composite sandwitched wall/roof panel (75mm thick) having core material of EPS granule balls/ beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board conforming to IS 14862:2000 or Calcium silicate board conforming to EN 14306:2009 of 5mm thick each	sqm	10.50	1111.00	11665.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia) LABOUR	L.S.	37.00	2.27	83.99	
	For fixing, aligning, locking the panels					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				12933.99	W
	Add 1 % Water charges on “W”				129.34	
	TOTAL				13063.33	X
	Add GST on “X” (multiplying factor 0.2127)				2778.57	
	TOTAL				15841.90	Y
	Add 15% CPOH on “Y”				2376.29	
	TOTAL				18218.19	Z
	Add Cess @ 1% on “Z”				182.18	
	Cost of 10 sqm				18400.37	
	Cost of 1sqm				1840.04	
	Say				1840.05	

26.49.4 Non load bearing panels 90mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm) MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
7999	Factory made EPS light weight composite sandwitched wall/roof panel (90mm thick) having core material of EPS granule balls/ beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board conforming to IS 14862:2000 or Calcium silicate board conforming to EN 14306:2009 of 5mm thick each	sqm	10.50	1313.00	13786.50	
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia) LABOUR	L.S.	37.00	2.27	83.99	
	For fixing, aligning, locking the panels					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				15054.99	W
	Add 1 % Water charges on “W”				150.55	
	TOTAL				15205.54	X
	Add GST on “X” (multiplying factor 0.2127)				3234.22	
	TOTAL				18439.76	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on “Y”				2765.96	
	TOTAL				21205.72	Z
	Add Cess @ 1% on “Z”				212.06	
	Cost of 10 sqm				21417.78	
	Cost of 1sqm				2141.78	
	Say				2141.80	

26.49.5 Non load bearing panels 100mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
8000	Factory made EPS light weight composite sandwitched wall/roof panel (100mm thick) having core material of EPS granule balls/ beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board conforming to IS 14862:2000 or Calcium silicate board conforming to EN 14306:2009 of 5mm thick each	sqm	10.50	1565.00	16432.50	
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.27	83.99	
	LABOUR					
	For fixing, aligning, locking the panels					
0123	Mason 1st class	day	0.50	897.00	448.50	
0114	Beldar	day	1.00	736.00	736.00	
	TOTAL				17700.99	W
	Add 1 % Water charges on “W”				177.01	
	TOTAL				17878.00	X
	Add GST on “X” (multiplying factor 0.2127)				3802.65	
	TOTAL				21680.65	Y
	Add 15% CPOH on “Y”				3252.10	
	TOTAL				24932.75	Z
	Add Cess @ 1% on “Z”				249.33	
	Cost of 10 sqm				25182.08	
	Cost of 1sqm				2518.21	
	Say				2518.20	

26.50 Providing and fixing in position factory made non asbestos fibre reinforced aerated cement sandwich wall/roof/floor light weight solid core panels made of light weight cement concrete core composed of OPC cement, pulverized flyash, quick lime, cotton pulp & Gypsum in mortar state mixed with aeration agent in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board conforming to IS 14862:2000. These solid wall panels are installed using Galvanized iron steel tracks/C channel of 1mm thick of required sizes as recommended by manufacturer's and fixed to floor and RCC soffit in plumb to each other with steel screw/fasteners. The panel shall be fixed vertically with tongue & groove joint with cement based polymer modified jointing compound. The exposed surface finished with fibre mesh/glass fibre tape with polymer based jointing compound having superior flexibility. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "tracks/C channel" which will be paid separately).

26.50.1 Non load bearing panels 50 mm thick of required size (minimum 4mm thick fibre cement board Type B, Category III as per IS: 14862:2000 on both faces)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
0244	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) Type B, Category III as per IS 14862:2000	sqm	10.50	650.00	6825.00	
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.27	1135.00	
	LABOUR					
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.					
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	2.00	736.00	1472.00	
0131	Painter	day	0.50	816.00	408.00	
	TOTAL				10737.00	W
	Add 1 % Water charges on "W"				107.37	
	TOTAL				10844.37	X
	Add GST on "X" (multiplying factor 0.2127)				2306.60	
	TOTAL				13150.97	Y
	Add 15% CPOH on "Y"				1972.65	
	TOTAL				15123.62	Z
	Add Cess @ 1% on "Z"				151.24	
	Cost of 10 sqm				15274.86	
	Cost of 1sqm				1527.49	
	Say				1527.50	

26.50.1 A Non load bearing panels 50 mm thick of required size (minimum 4mm thick fibre cement board Type A, Category III as per IS: 14862:2000 on both faces)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95 Nos x 0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
0253	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) Type A, Category III conforming to IS 14862:2000	sqm	10.50	722.00	7581.00	
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.27	1135.00	
	LABOUR					
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.					
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	2.00	736.00	1472.00	
0131	Painter	day	0.50	816.00	408.00	
	TOTAL				11493.00	W
	Add 1 % Water charges on “W”				114.93	
	TOTAL				11607.93	X
	Add GST on “X” (multiplying factor 0.2127)				2469.01	
	TOTAL				14076.94	Y
	Add 15% CPOH on “Y”				2111.54	
	TOTAL				16188.48	Z
	Add Cess @ 1% on “Z”				161.88	
	Cost of 10 sqm				16350.36	
	Cost of 1sqm				1635.04	
	Say				1635.05	

26.50.1 B Non load bearing panels 50 mm thick of required size (minimum 4mm thick fibre cement board Type A, Category IV as per IS: 14862:2000 on both faces)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95 Nos x 0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
0254	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) Type A, Category IV conforming to IS 14862:2000	sqm	10.50	1012.00	10626.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.27	1135.00	
	LABOUR					
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.					
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	2.00	736.00	1472.00	
0131	Painter	day	0.50	816.00	408.00	
	TOTAL				14538.00	W
	Add 1 % Water charges on “W”				145.38	
	TOTAL				14683.38	X
	Add GST on “X” (multiplying factor 0.2127)				3123.15	
	TOTAL				17806.53	Y
	Add 15% CPOH on “Y”				2670.98	
	TOTAL				20477.51	Z
	Add Cess @ 1% on “Z”				204.78	
	Cost of 10 sqm				20682.29	
	Cost of 1sqm				2068.23	
	Say				2068.25	

26.50.2 Non load bearing panels 75 mm thick of required size (minimum 5mm thick fibre cement board Type B, Category III as per IS: 14862:2000 on both faces)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
0245	Factory made light weight non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (75mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 5mm thick) Type B, Category III conforming to IS 14862:2000	sqm	10.50	860.00	9030.00	
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.27	1135.00	
	LABOUR					
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.					
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	2.00	736.00	1472.00	
0131	Painter	day	0.50	816.00	408.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				12942.00	W
	Add 1 % Water charges on “W”				129.42	
	TOTAL				13071.42	X
	Add GST on “X” (multiplying factor 0.2127)				2780.29	
	TOTAL				15851.71	Y
	Add 15% CPOH on “Y”				2377.76	
	TOTAL				18229.47	Z
	Add Cess @ 1% on “Z”				182.29	
	Cost of 10 sqm				18411.76	
	Cost of 1sqm				1841.18	
	Say				1841.20	

26.50.2 A Non load bearing panels 75 mm thick of required size (minimum 5mm thick fibre cement board Type A, Category III as per IS: 14862:2000 on both faces)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
0255	Factory made light weight non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (75mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 5mm thick) Type A, Category III conforming to IS 14862:2000	sqm	10.50	822.00	8631.00	
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.27	1135.00	
	LABOUR					
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.					
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	2.00	736.00	1472.00	
0131	Painter	day	0.50	816.00	408.00	
	TOTAL				12543.00	W
	Add 1 % Water charges on “W”				125.43	
	TOTAL				12668.43	X
	Add GST on “X” (multiplying factor 0.2127)				2694.58	
	TOTAL				15363.01	Y
	Add 15% CPOH on “Y”				2304.45	
	TOTAL				17667.46	Z
	Add Cess @ 1% on “Z”				176.67	
	Cost of 10 sqm				17844.13	
	Cost of 1sqm				1784.41	
	Say				1784.40	

26.50.2 B Non load bearing panels 75 mm thick of required size (minimum 5mm thick fibre cement board Type A, Category IV as per IS: 14862:2000 on both faces)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost 10sqm (6.95Nos x0.6m x2.40m = 10sqm)					
	MATERIAL					
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm					
0256	Factory made light weight non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (75mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 5mm thick) Type A, Category IV conforming to IS 14862:2000	sqm	10.50	1185.00	12442.50	
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.27	1135.00	
	LABOUR					
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.					
0123	Mason 1st class	day	1.00	897.00	897.00	
0114	Beldar	day	2.00	736.00	1472.00	
0131	Painter	day	0.50	816.00	408.00	
	TOTAL				16354.50	W
	Add 1 % Water charges on “W”				163.55	
	TOTAL				16518.05	X
	Add GST on “X” (multiplying factor 0.2127)				3513.39	
	TOTAL				20031.44	Y
	Add 15% CPOH on “Y”				3004.72	
	TOTAL				23036.16	Z
	Add Cess @ 1% on “Z”				230.36	
	Cost of 10 sqm				23266.52	
	Cost of 1sqm				2326.65	
	Say				2326.65	

26.51 Supplying of standard quality GFRG panel of 124 mm thickness with modular cavities purchased from GFRG panel manufacturing plant in the country, cut to required wall sizes and floor/ roof slab sizes in correct length and height, including cutting of door, window and ventilator opening as per the cutting drawing prepared by architects /design engineers for the construction of GFRG building and loaded in stillages for transportation to the construction site. Cost of panel includes security deposits, hire charges of stillages & jaws, cost of transportation in trucks/ lorries without any damages upto 300kms including all leads and lifts from GFRG manufacturing plant to construction site and unloading at site using suitable fork lift/ crane. (Payment shall be made on the basis of area of one side of panel without reduction of opening of door/ window / ventilator). For transportation above 300kms, additional charges to be paid.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1sqm.					
	MATERIALS					
	Panel area = 1.00sqm, Add wastage @ 5% = 0.050sqm, Total area = 1.05 sqm					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7368	GFRG panel of 124mm thick	sqm	1.05	896.00	940.80	
9999	Transportation of panel in suitable truck (Rs 0.15/sqm/km) upto 300 Km	L.S.	26.00	2.27	59.02	
9999	Hire Charges for Stillages/Lifting jaw, un-loading of panel at site using for lift or crane, Hire Charges for Stillages/Lifting jaw	L.S.	17.00	2.27	38.59	
	TOTAL				1038.41	W
	Add 1% water charges				10.38	
	TOTAL				1048.79	X
	Add GST on “X” (multiplying factor 0.2127)				223.08	
	TOTAL				1271.87	Y
	Add 15% CPOH on “Y”				190.78	
	TOTAL				1462.65	Z
	Add Cess @1% on “Z”				14.63	
	Cost of 1 sqm				1477.28	
	Say				1477.30	

26.52 **Erection of GFRG Panels in walls in all floors using suitable crane as per instructions of Engineer-in-Charge, as per cutting drawings and structural drawings, in perfect line and plumb, above RCC plinth beam/GFRG panel below and provide necessary lateral/ slanting support to keep the wall panel in safe position, providing & tieing of Reinforcement as per structural drawings and applying a coat of water repellant coating Zycosil/equivalent or equivalent product (1 Zycosil/equivalent compound :10 water) to saturation level over RCC plinth beam to provide water proofing treatment to joint between wall panel & plinth beam as per the guide lines / instruction by the engineer in charge. (Cost of reinforcement, water proofing of walls and plinth beam/GFRG panel below joints and installation of door/ window frames before filling of concrete shall be paid separately). The rate quoted shall include making provision for laying of lintels, beams, sunshades, staircase beams, lofts, plumbing work, electrical conduits and any structural insertion etc., as per the drawing and direction of the engineer in charge. The payment shall be made based on the actual exposed area (one side only) of the panel.**

The work shall be carried out as per the Special Conditions For Glass Fibre Reinforced Gypsum (GFRG) Structures mentioned in NIT.

Note: i) When cutting panel, “A” side is to be for outside or external surface of respective external wall and B side is to be for internal surface of wall

ii)Erection of panel is to be with reference to both building plan & cutting drawing by following notational mark indicated in the cutting drawing as well as notional mark written on each panel cut as per cutting drawing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 36sqm. (4 walls of 3mx3m = 36 sqm) LABOUR Skilled trained crew erection team 4 persons for 4 hour					
0123	Mason (Brick layer) 1st class For 2 Lintels works, 4 skilled men for 2 hrs	day	2.00	897.00	1794.00	
0123	Mason (Brick layer) 1st class Web cutting for horizontal tie beam, 2 skilled men for 4 hrs	day	1.00	897.00	897.00	
0123	Mason (Brick layer) 1st class	day	1.00	897.00	897.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Placing horizontal tie beam reinforcement 4 men for 2 hrs					
0123	Mason (Brick layer) 1st class	day	1.00	897.00	897.00	
	Cost for technical supervisor for 4 hrs (Technical supervisor = Skilled labour)					
0116	Fitter (Grade 1)	day	0.50	897.00	448.50	
0037	Mobile crane	day	0.375	5050.00	1893.75	
9999	Hire charge for lateral support & Lifting jaws	L.S.	150.00	2.27	340.50	
	TOTAL				7167.75	W
	Add 1% water charges				71.68	
	TOTAL				7239.43	X
	Add GST on “X” (multiplying factor 0.2127)				1539.83	
	TOTAL				8779.26	Y
	Add 15% CPOH on “Y”				1316.89	
	TOTAL				10096.15	Z
	Add Cess @1% on “Z”				100.96	
	Cost of 36 sqm				10197.11	
	Cost of 1 sqm				283.25	
	Say				283.25	

26.53 Filling of empty cavities (as shown in the structural design drawing) with quarry dust mixed with 5% cement (by volume). After initial infill of 50 mm thick with M25 concrete at base/ bottom of cavities to seal off, infill wall panel cavities in 3 stages as detailed below,

(i) 1st pour / infill to be limited to 0.3 to 0.50 m height from bottom of the panel.

(ii) 2nd Pour/ infill: infilling shall be done only after 90 minutes interval between successive pours. The maximum height of infill shall be restricted to 1.5m height or up to the top level of door / window.

(iii) 3rd pour/infill: After an interval of 90 minutes of second pour, infill or pour the balance height up to the bottom of embedded RCC tie beam. Pour enough water just required to dampen the dry mix enough to form cake form after each stage.

(cost of laying M25 concrete shall be paid separately)

(If any rain falls in between any stages of concrete pour, make sure to cover the panel top to prevent ingress of water or water falling into the cavities. In case of water collection over the concrete inside the panel, drill 10mm hole in GFRG panel immediately above concrete filled level to drain out water before pour/in-fill of balance concreting)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for filling one panel size 9 sqm (3mx3m Wall)					
	MATERIAL					
1159	Stone dust/Quarry dust filling in cavities of size 230x94 mm	cum	0.850	1100.00	935.00	
0367	OPC Cement @ 5% volume of quarry dust	tonne	0.061	5156.00	314.52	
	Tools and plants hire charges					
0002	Mixer hire charges	day	0.125	900.00	112.50	
	LABOUR					
0124	Mason 2nd class	day	0.125	816.00	102.00	
0114	Beldar	day	0.125	736.00	92.00	
	TOTAL				1556.02	W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 1% water charges				15.56	
	TOTAL				1571.58	X
	Add GST on “X” (multiplying factor 0.2127)				334.28	
	TOTAL				1905.86	Y
	Add 15% CPOH on “Y”				285.88	
	TOTAL				2191.74	Z
	Add Cess @1% on “Z”				21.92	
	Cost of 0.85 cum				2213.66	
	Cost of 1 cum				2604.31	
	Say				2604.30	

26.54 Laying of GFRG panel as roof / floor slab panel and staircase panel using suitable crane as per instructions of Engineer-in-Charge, including providing support system with 25mm x 300mm-400 mm wide plywood, as runner with proper prop below proposed micro beams including (a) Cutting of top flange of panel to 180 mm wide (leaving 25mm projection on either side) to provide RCC embedded micro beam as per cutting drawings and structural drawings.

(b) Reinforcement for micro beams and tie beams to be provided in position with proper anchorage as per structural drawings.

(c) Provision for Electrical cabling, fan hooks and laying of pipes for plumbing work.

(d) Concreting of Tie beam, micro beam and top of GFRG panels (50 mm thick) with M-25 cement concrete mix using coarse aggregate of size less than 20 mm including laying of 10 gauge 100x100 size weld mesh with 25 mm effective cover from the panel top.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 9 sqm (3mx3m wall panel)					
	LABOUR					
	Providing runner & support system in place for placing panel in position with 40mm bearing on walls(4 Skilled persons for 1/2 Hrs /1/16 days)					
0123	Mason (Brick layer) 1st class	day	0.25	897.00	224.25	
	Lifting panel from stack by crane and placing in position with 40 mm bearing on walls 4 skilled labour for 1 hrs					
0123	Mason (Brick layer) 1st class	day	0.50	897.00	448.50	
	Cutting & removal of top flange to protruding 25mm on either sides for keying panel into RCC micro beams in position (every 3rd cavities runner/span in place beneath) and providing concealed beam reinforcement in position, side shuttering for slab for external side(with 6mm grove) also to be provided (mean while providing fan hooks, electrical cabling, piping etc by coordinate task by concerned skilled persons, 4 skilled labour for 1 hrs					
0123	Mason (Brick layer) 1st class	day	0.50	897.00	448.50	
9999	Hire charges for runner and support system and side shuttering for external side of slab for 5 days	L.S.	29.00	2.27	65.83	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0037	Mobile crane	day	0.125	5050.00	631.25	
	TOTAL				1818.33	W
	Add 1% water charges				18.18	
	TOTAL				1836.51	X
	Add GST on “X” (multiplying factor 0.2127)				390.63	
	TOTAL				2227.14	Y
	Add 15% CPOH on “Y”				334.07	
	TOTAL				2561.21	Z
	Add Cess @1% on “Z”				25.61	
	Cost of 9 sqm				2586.82	
	Cost of 1 sqm				287.42	
	Say				287.40	

26.55 Supplying and fixing 10 Gauge weld mesh of size 100mm x100 mm for floor/roof slab concrete screed over the micro beams as reinforcement. The weld mesh shall be fixed as per drawing.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 9sqm (3mx3m)					
	MATERIAL					
	Mesh area = 9.00sqm, Add wastage @ 5% = 0.45sqm, Total area = 9.45 sqm					
1223	Steel weld mesh	sqm	9.45	150.00	1417.50	
	Labour for filling the quarry dust					
0103	Blacksmith 2nd class	day	0.125	816.00	102.00	
0114	Beldar	day	0.125	736.00	92.00	
	TOTAL				1611.50	W
	Add 1% water charges				16.12	
	TOTAL				1627.62	X
	Add GST on “X” (multiplying factor 0.2127)				346.19	
	TOTAL				1973.81	Y
	Add 15% CPOH on “Y”				296.07	
	TOTAL				2269.88	Z
	Add Cess @1% on “Z”				22.70	
	Cost of 9 sqm				2292.58	
	Cost of 1 sqm				254.73	
	Say				254.75	

26.56 Application of ZMB 60/equivalent solution (100 Kg ZMB 60/equivalent, 1 litre ZMB Nano Thinner, 20 litre water & 1 Litre Zycoprime/equivalent = 122 litre/kg) over already applied coat of Zycosil/equivalent & Zycoprime/equivalent solution on the top of all the RCC plinth beams by brush/spray coat before erection of GFRG over RCC plinth beams in GF. In the case of upper floors 150 mm wide on floor slab for all the external walls, bath/toilet/wet areas (3 hrs drying time) before erection of wall panel on upper floors including erection of parapet wall.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 122sqm					
	MATERIAL					
8516	ZMB 60 / equivalent	kg	100.000	130.00	13000.00	
8517	ZMB Thinner	litre	1.000	250.00	250.00	
8518	Zycoprime / equivalent	litre	1.000	170.00	170.00	
9999	Water, brush, technical supervision etc.	L.S.	78.000	2.27	177.06	
	LABOUR					
0123	Mason (Brick layer) 1st class	day	20.333	897.00	18238.70	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				31835.76	W
	Add 1% water charges				318.36	
	TOTAL				32154.12	X
	Add GST on “X” (multiplying factor 0.2127)				6839.18	
	TOTAL				38993.30	Y
	Add 15% CPOH on “Y”				5849.00	
	TOTAL				44842.30	Z
	Add Cess @1% on “Z”				448.42	
	Cost of 122 sqm				45290.72	
	Cost of 1 sqm				371.24	
	Say				371.25	

26.57 After erection of GFRG wall panels, seal all GFRG wall joints with paper tape temporarily. Water proofing treatment of vertical joints with Zycosil/equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litre)) with 50 ml syringe till the gap and in filled concrete is completely saturated. After removing the paper seal, seal off the vertical joints with water proofing material “Grout RW/equivalent “ (Sealing cost excluded.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 30 metre					
	MATERIAL					
8519	Zycosil /equivalent	litre	0.261	1440.00	375.84	
8518	Zycoprime / equivalent	litre	0.522	170.00	88.74	
9999	water, syringe, etc.	L.S.	160.000	2.27	363.20	
	LABOUR					
0123	Mason (Brick layer) 1st class	day	1.250	897.00	1121.25	
	TOTAL				1949.03	W
	Add 1% water charges				19.49	
	TOTAL				1968.52	X
	Add GST on “X” (multiplying factor 0.2127)				418.70	
	TOTAL				2387.22	Y
	Add 15% CPOH on “Y”				358.08	
	TOTAL				2745.30	Z
	Add Cess @1% on “Z”				27.45	
	Cost of 30 metre				2772.75	
	Cost of 1 metre				92.43	
	Say				92.45	

26.58 Filling of joints between RCC plinth beam / floor slab and wall panel of external walls, toilet / bath room / wet areas walls on all floor and parapet wall over roof slab, stair case head room at the time of erection of GFRG panels with Grout RW/equivalent sealant compound after the erection of panel before the infill of concrete in panel cavities and fine finish. This applies for all horizontal and vertical joints between GFRG wall and slab panels.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 48 metre					
	MATERIAL					
8520	Elastobar / equivalent	kg	1.000	300.00	300.00	
0367	OPC Cement	tonne	0.002	5156.00	10.31	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	100 mesh silica, water, technical supervision, etc.	L.S.	3.000	2.27	6.81	
	LABOUR					
0123	Mason (Brick layer) 1st class	day	1.500	897.00	1345.50	
	TOTAL				1662.62	W
	Add 1% water charges				16.63	
	TOTAL				1679.25	X
	Add GST on “X” (multiplying factor 0.2127)				357.18	
	TOTAL				2036.43	Y
	Add 15% CPOH on “Y”				305.46	
	TOTAL				2341.89	Z
	Add Cess @1% on “Z”				23.42	
	Cost of 48 metre				2365.31	
	Cost of 1 metre				49.28	
	Say				49.30	

26.59 Water proofing treatment of Vertical joints (of external side and internal side) between door frame, window & ventilator frames (on all four sides) of outer wall over the Zycosil/equivalent & Zycoprime/equivalent solution already applied (before the installation of door / window / ventilator frames in position) and fine finish with Grout RW/equivalent.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40 sqm or 4000 m of 10mm thick strip					
	MATERIAL					
8519	Zycosil / equivalent	litre	1.000	1440.00	1440.00	
8518	Zycoprime / equivalent	litre	2.000	170.00	340.00	
9999	Water, technical supervision, etc.	L.S.	6.000	2.27	13.62	
	LABOUR					
0123	Mason (Brick layer) 1st class	day	0.286	897.00	256.54	
	MATERIAL					
8520	Elastobar / equivalent (1.00x4000/48=83.33 kg)	kg	83.330	300.00	24999.00	
0367	OPC Cement(0.0015x4000/48=0.125 tonne)	tonne	0.125	5156.00	644.50	
9999	100 mesh silica, water, technical supervision, etc.(3.00x4000/48=250.00)	L.S.	250.000	2.27	567.50	
	LABOUR					
0123	Mason (Brick layer) 1st class 1.50x4000/48=125.00 day	day	125.000	897.00	112125.00	
	TOTAL				140386.16	W
	Add 1% water charges				1403.86	
	TOTAL				141790.02	X
	Add GST on “X” (multiplying factor 0.2127)				30158.74	
	TOTAL				171948.76	Y
	Add 15% CPOH on “Y”				25792.31	
	TOTAL				197741.07	Z
	Add Cess @1% on “Z”				1977.41	
	Cost of 4000 metre				199718.48	
	Cost of 1 metre				49.93	
	Say				49.95	

26.60 Water proofing treatment of RCC sunshade with Zycosil/equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres)) till it meets the saturation level and testing as per RILEM or by water drops test in which water drops do not absorb but drops remain or rolls.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40 sqm					
	MATERIAL					
8519	Zycosil / equivalent	litre	1.000	1440.00	1440.00	
8518	Zycoprime /equivalent	litre	2.000	170.00	340.00	
9999	Water, technical supervision, etc.	L.S.	7.000	2.27	15.89	
	LABOUR					
0131	Painter	day	2.500	816.00	2040.00	
	TOTAL				3835.89	W
	Add 1% water charges				38.36	
	TOTAL				3874.25	X
	Add GST on “X” (multiplying factor 0.2127)				824.05	
	TOTAL				4698.30	Y
	Add 15% CPOH on “Y”				704.75	
	TOTAL				5403.05	Z
	Add Cess @1% on “Z”				54.03	
	Cost of 40 sqm				5457.08	
	Cost of 1 sqm				136.43	
	Say				136.45	

26.61 In-filling / sealing of joint between RCC lintel cum sunshade and wall (on external side) in all floors by pushing in Grout RW/equivalent in paste form and coving 20 mm x 20 mm after applying a coat of Zycosil/equivalent & zycoprime/equivalent solution before cement plastering of top, bottom and sides of RCC sunshade.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40 sqm or 4000 m of 10mm thick strip					
	MATERIAL					
8519	Zycosil / equivalent	litre	1.000	1440.00	1440.00	
8518	Zycoprime / equivalent	litre	2.000	170.00	340.00	
9999	Water, technical supervision, etc.	L.S.	6.000	2.27	13.62	
	LABOUR					
0123	Mason (Brick layer) 1st class	day	0.286	897.00	256.54	
	MATERIAL					
8520	Elastobar / equivalent (1.00x4000/48=83.33 kg)	kg	83.330	300.00	24999.00	
0367	OPC Cement(0.0015x4000/48=0.125 tonne)	tonne	0.125	5156.00	644.50	
9999	100 mesh silica, water, technical supervision, etc.(3.00x4000/48=250.00)	L.S.	250.000	2.27	567.50	
	LABOUR					
0123	Mason (Brick layer) 1st class 1.50x4000/48=125.00 day	day	125.000	897.00	112125.00	
	TOTAL				140386.16	W
	Add 1% water charges				1403.86	
	TOTAL				141790.02	X
	Add GST on “X” (multiplying factor 0.2127)				30158.74	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				171948.76	Y
	Add 15% CPOH on "Y"				25792.31	
	TOTAL				197741.07	Z
	Add Cess @1% on "Z"				1977.41	
	Cost of 4000 metre				199718.48	
	Cost of 1 metre				49.93	
	Say				49.95	

26.62 Designing, Providing, installing and fixing factory finished customed design pregalvanized high tensile steel joists manufactured from G350 Z275 conforming to IS:277-1992, minimum coating of galvanizing 275 gm/sqm, minimum yield stress 35 MPa & minimum tensile strength of 380 MPa placed 1.23 metre apart to support the load of slab etc as per the design & directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 212.816 kg MATERIAL Covered area = 5.57x4.2m = 23.394 sqm (a) 250 series Joist (G 350) - 3mm thick - Galvanised = 4 Nos x4.18 metre length = 16.72 metre @ 10.59 kg/metre = 177.06 kg (b) Joist Shoe plate (E 250) - 12 mm thick MS Plate (Galvanised with 55 microns) = 2 Nos in each joist x 4 No. joist = 8 No's @ 2.4kg/each = 19.2kg (c) Bolts (M16 - Gr 8.8s), (Galvanised) (16Ø X 40 bolts With washer & Nuts)= 6No's in each joist x 4 No. joists=24 Nos 24 No's@0.135kg/each = 3.24 kg (d) Hanging Angle at corners to support lock bars L 75x40x1.6 (Galvanised) = 2x4.18 metre =8.36 metre @ 1.60kg/metre = 13.376 kg Total weight = 177.06+19.2+3.24+13.376 = 212.816 kgs					
1012	Pregalvanized high tensile steel	kg	212.816	110.00	23409.76	
	LABOUR (Reference item no 10.1)					
0116	Fitter (grade 1)	day	1.064	897.00	954.41	
0103	Blacksmith 2nd class	day	1.596	816.00	1302.34	
0114	Beldar	day	2.128	736.00	1566.21	
	Total				27232.72	W
	Add 1 % Water charges on "W"				272.33	
	TOTAL				27505.05	X
	Add GST on "X" (multiplying factor 0.2127)				5850.32	
	TOTAL				33355.37	Y
	Add 15% CPOH on "Y"				5003.31	
	TOTAL				38358.68	Z
	Add Cess @ 1% on "Z"				383.59	
	Cost of 212.816 kg				38742.27	
	Cost of 1 kg				182.05	
	Say				182.05	

26.63 Providing and fixing special adjustable lockbars of mild steel E-250 to support the temporary plywood for work between joists during construction as per design & directions of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 298.75 kg MATERIAL Assuming special adjustable lock bar of mild steel will become unserviceable after use of 50 times Taking salvage value after full use of material @ 35% of cost Lock bar of size 1230mmx75mmx10mm 45 Nos x 4.35kg/each = 195.75 kg. Lock bar of size 930mmx75mmx10mm 30 Nos x 3.3kg/each = 99.00 kg. Total weight = 298.75 kgs Assuming 50 repetition, Qty taken for cost of using once = 298.75/50= 5.975 kgs Considering salvage value @ 35%, Quantity = 5.975x(100-35)/100 = 3.88 kgs					
7336	Lock Bar (E 250) - 10 thick MS Plate	kgs	3.88	83.00	322.04	
	LABOUR (Reference item no 10.1)					
0116	Fitter (grade 1)	day	1.49	897.00	1336.53	
0103	Blacksmith 2nd class	day	2.24	816.00	1827.84	
0114	Beldar	day	2.99	736.00	2200.64	
	Total				5687.05	W
	Add 1 % Water charges on “W”				56.87	
	TOTAL				5743.92	X
	Add GST on “X” (multiplying factor 0.2127)				1221.73	
	TOTAL				6965.65	Y
	Add 15% CPOH on “Y”				1044.85	
	TOTAL				8010.50	Z
	Add Cess @ 1% on “Z”				80.11	
	Cost of 298.75 kg				8090.61	
	Cost of 1 kg				27.08	
	Say				27.10	

26.64 Centering and shuttering with 12mm thick shuttering plywood conforming to IS 4990:2011 and removal of form at all heights. Plywood will be supported on lock bars.

26.64.1 Suspended floors, roofs, landings, balconies and access platform.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 135 sqm MATERIAL Assuming 12mm thick plywood will become unserviceable after use of 10 times Area of roof = 135 sqm + Add wastage @ 5% = 6.75 sqm. Total = 141.75 sqm. Qty taken for cost using once = 141.75/10 = 14.175 sqm					
8659	12mm thick waterproofing plywood conforming to IS 4990:2011	sqm	14.175	578.00	8193.15	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR (Reference item no 5.9.20)					
0112	Carpenter 2nd class	day	1.250	816.00	1020.00	
0114	Beldar	day	1.250	736.00	920.00	
	Total				10133.15	W
	Add 1 % Water charges on “W”				101.33	
	TOTAL				10234.48	X
	Add GST on “X” (multiplying factor 0.2127)				2176.87	
	TOTAL				12411.35	Y
	Add 15% CPOH on “Y”				1861.70	
	TOTAL				14273.05	Z
	Add Cess @ 1% on “Z”				142.73	
	Cost of 135 sqm				14415.78	
	Cost of 1 sqm				106.78	
	Say				106.80	

26.65 Providing and fixing roofing consist of 0.8 mm thick galvanized steel deck sheet conforming to IS 277:1992 used as permanent shuttering over which MS wire mesh 3mm laid at 100x100 mm grid including edge trim covered with concrete. This metal deck will be supported on structural steel beam with shear studs. (Structural steel like Beam, column, joists etc. & concrete of different grade as per design will be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Weight of GI sheet for 10sqm = 76.7 kgs + Add wastage @ 3% = 2.3 kg. Total = 79.00 kg					
8019	GI sheet 0.8 mm thick conforming to IS 277:1992	kg	79.00	69.00	5451.00	
	Length wire mesh 200metre/10 sqm. Weight of wire @ 0.06 kg/m. total weight = 12 kgs + Add wastage @ 5% = 0.6 kgs. Total 12.6 kg					
1217	GI Wire mesh 100x100 mm	kg	12.60	75.00	945.00	
2314	Carriage of sheet & wire	tonne	0.092	0.00	0.00	
1218	Shear stud	each	40.00	50.00	2000.00	
9999	Nails/Tagged screws	L.S.	138.70	2.27	314.85	
9999	Labour for fixing shear stud	L.S.	462.40	2.27	1049.65	
	Labour for sheeting (Ref item no 26.19.1)					
0130	Mistry	day	0.108	897.00	96.88	
0112	Carpenter 2nd class	day	0.432	816.00	352.51	
0114	Beldar	day	0.432	736.00	317.95	
	Labour for laying wire mesh (Ref item no 5.22.2)					
0102	Blacksmith 1st class	day	0.12	897.00	107.64	
0114	Beldar	day	0.120	736.00	88.32	
	Total				10723.80	W
	Add 1 % Water charges on “W”				107.24	
	TOTAL				10831.04	X
	Add GST on “X” (multiplying factor 0.2127)				2303.76	
	TOTAL				13134.80	Y
	Add 15% CPOH on “Y”				1970.22	
	TOTAL				15105.02	Z
	Add Cess @ 1% on “Z”				151.05	
	Cost of 10 sqm				15256.07	
	Cost of 1 sqm				1525.61	
	Say				1525.60	

26.66 Providing and fixing in position, 130 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shortcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia zinc coated G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall and connected by GI wire of 3 mm dia at alternate row by welding. The EPS core shall consist of 60 mm thick EPS of density not less than 16 kg/ cum. Both the outer faces of the panel shall be finished by applying the layer of 35 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100KN/m2) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.20x3.00m= 3.60 sqm					
	MATERIAL					
	Area of EPS panel = 3.60 sqm + Add wastage @5%. Total = 3.78 sqm					
8020	Factory made EPS Core wall panel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh, with 50 mm pitch in both the directions, connected by G.I. wire of 3mm dia at alternate row by welding	sqm	3.780	621.00	2347.38	
9999	Add for L-shape, U-shape & straight lap mesh	L.S.	208.000	2.27	472.16	
	Cement mortar 1:3 (1cement:3 coarse sand) 2x1.20x3.00x0.035= 0.252 cum					
3.8	Rate as per Item No.3.8 of SH: Mortar	cum	0.252	4881.95	1230.25	
	10 mm TMT bars 8 nos of 0.60 metre long. Total length = 4.8 m @ 0.617 kg/metre. Total weight = 2.96 kg					
5.22.6	Rate as per 5.22.6 (SH:5 Reinforced Cement Concrete)	kg	2.960	107.85	319.24	A
9999	Tag screw with washers for wire mesh fixing	L.S.	78.000	2.27	177.06	
9999	For fixing wall with foundation	L.S.	312.150	2.27	708.58	
	LABOUR					
9999	For carrying out shotcreting, shoring, leveling, and finishing the surface with trowel.	L.S.	707.500	2.27	1606.03	
	Total				6860.70	W
	Add 1 % Water charges on “W-A”				65.41	
	TOTAL				6926.11	X
	Add GST on “X-A” (multiplying factor 0.2127)				1405.28	
	TOTAL				8331.39	Y
	Add 15% CPOH on “Y-A”				1201.82	
	TOTAL				9533.21	Z
	Add Cess @ 1% on “Z-A”				92.14	
	Cost of 3.6 sqm				9625.35	
	Cost of 1 sqm				2673.71	
	Say				2673.70	

26.67 Providing and fixing of external thermal insulation and composite system with First layer of self-extinguishing type Expanded Polystyrene (EPS) insulation boards of 120 mm thick (max 1mX0.5m section), conforming to IS 4671:1984, having thermal conductivity of 0.034 W/mK, (measured as per IS 3346-1980), density of 20-24 kg/m³ measured as per IS 5688-1982, Fire retardant property self-extinguishing type as per EN 13501-1, bonded with special polymer modified cementitious adhesive conforming to EOTA ETAG 004 (European Technical Approval) formulated to bond polystyrene insulation boards to typical mineral substrate (according to ETAG 004) and Polypropylene mechanical fasteners with plastic pin conforming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm on finished level wall and the junction between two adjacent EPS boards to be sealed with low expansion moisture cure Polyurethane Foam. Second layer consists of Fiberglass mesh covered with alkali-resistant coating, mass per unit area ≥145 gm/m², mesh size: 3.9x4.0 mm ±10% embedded in special polymer modified cementitious Base Coat with hydrophobes and the corners will be protected with Corner-beads with alkali-resistant mesh wings at least 10 cm wide, mesh mass per unit area min 145 gm/m². The surface will be levelled, finished, made smooth complete in all respect as per manufactures specification and as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	Material					
	Area of insulation board = 10 sqm + Add wastage @ 10% = 1 sqm. Total = 11.00 sqm					
8562	Expanded Polystyrene insulation board 120 mm thick conforming to IS 4671-1984, Fire retardant property self-extinguishing type as per EN 13501-1	sqm	11.00	880.00	9680.00	
1252	Cementitious polymer base adhesive conforming to EOTA ETAG 004 (European Technical Approval)	kg	50.00	40.00	2000.00	
1253	Polypropylene mechanical fastener with plastic pin conforming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm	each	100.00	30.00	3000.00	
1254	Moisture cure Polyurethane Foam	750 ml	0.80	550.00	440.00	
1255	PVC Corner Bead of size 25mmx25mm fixed with glass fibre mesh (100mm x 100mm)	metre	5.00	88.00	440.00	
1256	Cementitious polymer base coat conforming to EOTA ETAG 004 (European Technical Approval)	kg	50.00	35.00	1750.00	
1257	Fiberglass mesh with alkali-resistant coating having mass per unit area ≥145 g/m2, mesh size: 3.9x4.0 mm ±10%	sqm	10.00	70.00	700.00	
	Labour					
0131	Painter	day	4.00	816.00	3264.00	
0114	Beldar	day	4.00	736.00	2944.00	
9999	Trowel, Angle Float, Brushes, sand paper etc.	L.S.	72.25	2.27	164.01	
9999	Sundries (PVC drip bead with glass fibre mesh wing (100mm x 100mm), expansion joint, starter track of 1mm thick aluminium alloy (120mm wide), polyurethane sealent, scaffolding etc.)	L.S.	1445.09	2.27	3280.35	
	Total				27662.36	W
	Add 1 % Water charges on “W”				276.62	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				27938.98	X
	Add GST on “X” (multiplying factor 0.2127)				5942.62	
	TOTAL				33881.60	Y
	Add 15% CPOH on “Y”				5082.24	
	TOTAL				38963.84	Z
	Add Cess @ 1% on “Z”				389.64	
	Cost of 10 sqm				39353.48	
	Cost of 1 sqm				3935.35	
	Say				3935.35	

26.68 Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:

26.68.1 Cement mortar 1:6 (1 cement : 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 cum					
	MATERIAL:					
8658	Precast C&D waste concrete block	1000 Nos	1.109	30100.00	33380.90	
2201	Carriage of blocks	1000 Nos	1.109	0.00	0.00	
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)					
3.11	Rate as per item No 3.11 of SH: Mortar	cum	1.130	3541.40	4001.78	
9999	Sundries	L.S.	27.300	2.27	61.97	
	LABOUR					
0123	Mason (brick layer) 1st class	day	3.300	897.00	2960.10	
0124	Mason 2nd class	day	3.300	816.00	2692.80	
0115	Coolie	day	10.000	736.00	7360.00	
0101	Bhisti	day	1.800	816.00	1468.80	
	Total				51926.35	W
	Add 1 % Water charges on “W”				519.26	
	TOTAL				52445.61	X
	Add GST on “X” (multiplying factor 0.2127)				11155.18	
	TOTAL				63600.79	Y
	Add 15% CPOH on “Y”				9540.12	
	TOTAL				73140.91	Z
	Add Cess @ 1% on “Z”				731.41	
	Cost of 10 cum				73872.32	
	Cost of 1 cum				7387.23	
	Say				7387.25	

26.69 Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level

26.69.1 Cement mortar 1:6 (1 cement : 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 cum					
	MATERIAL:					
8658	Precast C&D waste concrete block	1000 Nos	1.109	30100.00	33380.90	
2201	Carriage of blocks	1000 Nos	1.109	0.00	0.00	
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)					
3.11	Rate as per item No 3.11 of SH: Mortar	cum	1.130	3541.40	4001.78	
9999	Sundries	L.S.	27.300	2.27	61.97	
	LABOUR					
0123	Mason (brick layer) 1st class	day	4.700	897.00	4215.90	
0124	Mason 2nd class	day	4.700	816.00	3835.20	
0115	Coolie	day	18.000	736.00	13248.00	
0101	Bhisti	day	2.000	816.00	1632.00	
9999	Scaffolding	L.S.	223.600	2.27	507.57	
	Extra labour element required for lifting of materials (above floor two level upto floor five level)					
0115	Coolie	day	11.300	736.00	8316.80	
	Total				69200.12	W
	Add 1 % Water charges on “W”				692.00	
	TOTAL				69892.12	X
	Add GST on “X” (multiplying factor 0.2127)				14866.05	
	TOTAL				84758.17	Y
	Add 15% CPOH on “Y”				12713.73	
	TOTAL				97471.90	Z
	Add Cess @ 1% on “Z”				974.72	
	Cost of 10 cum				98446.62	
	Cost of 1 cum				9844.66	
	Say				9844.65	

26.70 Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:

26.70.1 Cement mortar 1:4(1 cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL:					
8658	Precast C&D waste concrete block	1000 Nos	1.161	30100.00	34946.10	
2201	Carriage of blocks	1000 Nos	1.161	0.00	0.00	
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per item No 3.9 of SH: Mortar	cum	0.708	4211.70	2981.88	
9999	Sundries	L.S.	135.200	2.27	306.90	
	LABOUR					
0123	Mason (brick layer) 1st class	day	4.500	897.00	4036.50	
0124	Mason 2nd class	day	4.500	816.00	3672.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0115	Coolie	day	15.500	736.00	11408.00	
0101	Bhisti	day	7.000	816.00	5712.00	
	Total				63063.38	W
	Add 1 % Water charges on “W”				630.63	
	TOTAL				63694.01	X
	Add GST on “X” (multiplying factor 0.2127)				13547.72	
	TOTAL				77241.73	Y
	Add 15% CPOH on “Y”				11586.26	
	TOTAL				88827.99	Z
	Add Cess @ 1% on “Z”				888.28	
	Cost of 100 sqm				89716.27	
	Cost of 1 sqm				897.16	
	Say				897.15	

26.71 Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level:

26.71.1 Cement mortar 1:4 (1 cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL:					
8658	Precast C&D waste concrete block	1000 Nos	1.161	30100.00	34946.10	
2201	Carriage of blocks	1000 Nos	1.161	0.00	0.00	
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per item No 3.9 of SH: Mortar	cum	0.708	4211.70	2981.88	
9999	Sundries	L.S.	135.200	2.27	306.90	
	LABOUR					
0123	Mason (brick layer) 1st class	day	6.000	897.00	5382.00	
0124	Mason 2nd class	day	6.000	816.00	4896.00	
0115	Coolie	day	20.000	736.00	14720.00	
0101	Bhisti	day	7.000	816.00	5712.00	
	Extra labour for lifting of materials (above floor two level upto floor five level=1.13x0.10x100=11.30)					
0115	Coolie	day	11.300	736.00	8316.80	
	Total				77261.68	W
	Add 1 % Water charges on “W”				772.62	
	TOTAL				78034.30	X
	Add GST on “X” (multiplying factor 0.2127)				16597.90	
	TOTAL				94632.20	Y
	Add 15% CPOH on “Y”				14194.83	
	TOTAL				108827.03	Z
	Add Cess @ 1% on “Z”				1088.27	
	Cost of 100 sqm				109915.30	
	Cost of 1 sqm				1099.15	
	Say				1099.15	

26.72 Providing and laying 60mm thick factory made cement concrete paver block of approved shape and colour of M -30 grade made of C&D waste by block making machine with vibratory compaction laid in required pattern and including over 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 sqm					
	MATERIAL:					
7776	Concrete paver block of grade M-30 made of C&D waste (60mm thickness)	sqm	10.00	300.00	3000.00	
	Bedding layer - 50mm thick 10x0.050=0.50 cum					
0982	Coarse sand (zone III)	cum	0.50	1450.00	725.00	
2203	Carriage of Coarse sand	cum	0.50	0.00	0.00	
0983	Fine sand (zone IV)	cum	0.15	980.00	147.00	
2261	Carriage of fine sand	cum	0.15	0.00	0.00	
	Laying charges (Based on actual observation)					
	LABOUR					
0123	Mason (brick layer) 1st class	day	0.50	897.00	448.50	
0124	Mason 2nd class	day	0.50	816.00	408.00	
0114	Beldar	day	1.00	736.00	736.00	
0115	Coolie	day	0.50	736.00	368.00	
	Total				5832.50	W
	Add 1 % Water charges on “W”				58.33	
	TOTAL				5890.83	X
	Add GST on “X” (multiplying factor 0.2127)				1252.98	
	TOTAL				7143.81	Y
	Add 15% CPOH on “Y”				1071.57	
	TOTAL				8215.38	Z
	Add Cess @ 1% on “Z”				82.15	
	Cost of 10 sqm				8297.53	
	Cost of 1 sqm				829.75	
	Say				829.75	

26.73 **Fabrication & Manufacturing of Prestressed Hollow Core slab (Hollow area 25 to 30%) of different thickness & modular width 1200 mm in Controlled Factory Environment with approved methodology conforming to IS 10297:1982 by using long line casting method having arrangement of proper steel bed. Concreting should be done by batch mixing plant capable of producing zero slump concrete, transported through automatic shuttels of standard make & layed on bed with the help of extruder/Slipformer, finishing, curing and also provision of steam curing. Cutting, making necessary cutout/holes of required sizes for services in slab element after achieving required strength, yard handling & stacking all complete as per approved shop drawings & design mix as per the direction of the Engineer-in-charge. (Cost of strands should be paid separately).**

Note: Excess/less cement over the specified cement content used as per design mix is payable/recoverable separately)

26.73.1 Concrete Grade-M-40 (cement content 400 kg)

26.73.1.1 100 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 10.80 cum (120 Rmt)					
	120 Rmt X 1.20 m X .10 (25 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	10.80	10313.30	111383.64	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.35	Rate as per item no 5.35 of SH RCC	quintal	5.40	733.50	3960.90	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	10.80	550.00	5940.00	
9999	Extra cost for preparing zero slump concrete	L.S.	936.00	2.27	2124.72	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.10)=312)	sqm	312.00	69.05	21543.60	A
	TOTAL				149247.70	W
	Add 1 % Water charges on “W-A”				123.60	
	TOTAL				149371.30	X
	Add GST on “X-A” (multiplying factor 0.2127)				2655.17	
	TOTAL				152026.47	Y
	Add 15% CPOH on “Y-A”				2270.75	
	TOTAL				154297.22	Z
	Add Cess @ 1% on “Z-A”				174.09	
	Cost of 120 metre				154471.31	
	Cost of 1 metre				1287.26	
	Say				1287.25	

26.73.1.2 120 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 12.96 cum (120 Rmt) 120 Rmt X 1.20 m X .12 (25 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	12.96	10313.30	133660.37	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	6.48	733.50	4753.08	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	12.96	550.00	7128.00	
9999	Extra cost for preparing zero slump concrete	L.S.	1124.00	2.27	2551.48	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.12)=316.80)	sqm	316.80	69.05	21875.04	A
	TOTAL				174262.81	W
	Add 1 % Water charges on “W-A”				139.74	
	TOTAL				174402.55	X
	Add GST on “X-A” (multiplying factor 0.2127)				3002.06	
	TOTAL				177404.61	Y
	Add 15% CPOH on “Y-A”				2567.42	
	TOTAL				179972.03	Z
	Add Cess @ 1% on “Z-A”				196.84	
	Cost of 120 metre				180168.87	
	Cost of 1 metre				1501.41	
	Say				1501.40	

26.73.1.3 150 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 16.20 cum (120 Rmt) 120 Rmt X 1.20 m X 0.15 (25 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	16.20	10313.30	167075.46	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	8.10	733.50	5941.35	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	16.20	550.00	8910.00	
9999	Extra cost for preparing zero slump concrete	L.S.	1405.00	2.27	3189.35	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.15)=324.00)	sqm	324.00	69.05	22372.20	A
	TOTAL				211783.20	W
	Add 1 % Water charges on “W-A”				163.94	
	TOTAL				211947.14	X
	Add GST on “X-A” (multiplying factor 0.2127)				3521.91	
	TOTAL				215469.05	Y
	Add 15% CPOH on “Y-A”				3012.01	
	TOTAL				218481.06	Z
	Add Cess @ 1% on “Z-A”				230.92	
	Cost of 120 metre				218711.98	
	Cost of 1 metre				1822.60	
	Say				1822.60	

26.73.1.4 200 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 20.160 cum (120 Rmt) 120 Rmt X 1.20 m X0.20 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	20.16	10313.30	207916.13	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	10.08	733.50	7393.68	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	20.16	550.00	11088.00	
9999	Extra cost for preparing zero slump concrete	L.S.	1748.00	2.27	3967.96	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.20)=336.00)	sqm	336.00	69.05	23200.80	A
	TOTAL				257861.41	W
	Add 1 % Water charges on “W-A”				193.51	
	TOTAL				258054.92	X
	Add GST on “X-A” (multiplying factor 0.2127)				4157.07	
	TOTAL				262211.99	Y
	Add 15% CPOH on “Y-A”				3555.21	
	TOTAL				265767.20	Z
	Add Cess @ 1% on “Z-A”				272.57	
	Cost of 120 metre				266039.77	
	Cost of 1 metre				2217.00	
	Say				2217.00	

26.73.1.5 250 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 25.20 cum (120 Rmt) 120 Rmt X 1.20 m X 0.25 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	25.20	10313.30	259895.16	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.35	Rate as per item no 5.35 of SH RCC	quintal	12.60	733.50	9242.10	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	25.20	550.00	13860.00	
9999	Extra cost for preparing zero slump concrete	L.S.	2185.00	2.27	4959.95	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.25)=348.00)	sqm	348.00	69.05	24029.40	A
	TOTAL				316281.45	W
	Add 1 % Water charges on “W-A”				231.15	
	TOTAL				316512.60	X
	Add GST on “X-A” (multiplying factor 0.2127)				4965.68	
	TOTAL				321478.28	Y
	Add 15% CPOH on “Y-A”				4246.74	
	TOTAL				325725.02	Z
	Add Cess @ 1% on “Z-A”				325.58	
	Cost of 120 metre				326050.60	
	Cost of 1 metre				2717.09	
	Say				2717.10	

26.73.1.6 300 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 30.24 cum (120 Rmt) 120 Rmt X 1.20 m X 0.30 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	30.24	10313.30	311874.19	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	15.12	733.50	11090.52	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	30.24	550.00	16632.00	
9999	Extra cost for preparing zero slump concrete	L.S.	2622.00	2.27	5951.94	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.30)=360.00)	sqm	360.00	69.05	24858.00	A
	TOTAL				374701.49	W
	Add 1 % Water charges on “W-A”				268.79	
	TOTAL				374970.28	X
	Add GST on “X-A” (multiplying factor 0.2127)				5774.29	
	TOTAL				380744.57	Y
	Add 15% CPOH on “Y-A”				4938.28	
	TOTAL				385682.85	Z
	Add Cess @ 1% on “Z-A”				378.60	
	Cost of 120 metre				386061.45	
	Cost of 1 metre				3217.18	
	Say				3217.20	

26.73.1.7 350 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 35.28 cum (120 Rmt) 120 Rmt X 1.20 m X 0.35 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	35.28	10313.30	363853.22	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	17.64	733.50	12938.94	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	35.28	550.00	19404.00	
9999	Extra cost for preparing zero slump concrete	L.S.	3059.00	2.27	6943.93	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.35)=372.00)	sqm	372.00	69.05	25686.60	A
	TOTAL				433121.53	W
	Add 1 % Water charges on “W-A”				306.43	
	TOTAL				433427.96	X
	Add GST on “X-A” (multiplying factor 0.2127)				6582.89	
	TOTAL				440010.85	Y
	Add 15% CPOH on “Y-A”				5629.81	
	TOTAL				445640.66	Z
	Add Cess @ 1% on “Z-A”				431.62	
	Cost of 120 metre				446072.28	
	Cost of 1 metre				3717.27	
	Say				3717.25	

26.73.1.8 400 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 40.32 cum (120 Rmt) 120 Rmt X 1.20 m X 0.40 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	40.32	10313.30	415832.26	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	20.16	733.50	14787.36	A
9999	Hollow core bed cost	L.S.	1301.00	2.27	2953.27	
0031	Steam curing by using boiler /Heater	cum	40.32	550.00	22176.00	
9999	Extra cost for preparing zero slump concrete	L.S.	3496.00	2.27	7935.92	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.27	1312.06	
9999	Sundries	L.S.	13.00	2.27	29.51	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.40)=384.00)	sqm	384.00	69.05	26515.20	A
	TOTAL				491541.58	W
	Add 1 % Water charges on “W-A”				344.07	
	TOTAL				491885.65	X
	Add GST on “X-A” (multiplying factor 0.2127)				7391.50	
	TOTAL				499277.15	Y
	Add 15% CPOH on “Y-A”				6321.35	
	TOTAL				505598.50	Z
	Add Cess @ 1% on “Z-A”				484.64	
	Cost of 120 metre				506083.14	
	Cost of 1 metre				4217.36	
	Say				4217.35	

26.73.2 Extra for using M-50 (Cement content 425 kg) instead of M-40

26.73.2.1 100mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 10.80 cum (120 Rmt)					
	120 Rmt X 1.20 m X .10 (25 % hollow)					
	Cement for M-50 Mix = 4.590 T					
	Cement for M-40 Mix = 4.320 T					
	Difference 0.270 T					
0367	Portland Cement	tonne	0.270	5156.00	1392.12	
2209	Carriage of cement	tonne	0.270	0.00	0.00	
	Plasticizer for M-50 Mix = 91.800 Kgs					
	Plasticizer for M-40 Mix = 86.400 Kgs					
	Difference 5.400 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	5.400	30.00	162.00	
	TOTAL				1554.12	W
	Add 1 % Water charges on “W”				15.54	
	TOTAL				1569.66	X
	Add GST on “X-A” (multiplying factor 0.2127)				333.87	
	TOTAL				1903.53	Y
	Add 15% CPOH on “Y”				285.53	
	TOTAL				2189.06	Z
	Add Cess @ 1% on “Z”				21.89	
	Cost for 120 metre				2210.95	
	Cost of 1 metre				18.42	
	Say				18.40	

26.73.2.2 120mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 12.96 cum (120 Rmt)					
	120 Rmt X 1.20 m X .12 (25 % hollow)					
	Cement for M-50 Mix = 5.508 T					
	Cement for M-40 Mix = 5.184 T					
	Difference 0.324 T					
0367	Portland Cement	tonne	0.324	5156.00	1670.54	
2209	Carriage of cement	tonne	0.324	0.00	0.00	
	Plasticizer for M-50 Mix = 110.160 Kgs					
	Plasticizer for M-40 Mix = 103.680 Kgs					
	Difference 6.480 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	6.480	30.00	194.40	
	TOTAL				1864.94	W
	Add 1 % Water charges on “W”				18.65	
	TOTAL				1883.59	X
	Add GST on “X” (multiplying factor 0.2127)				400.64	
	TOTAL				2284.23	Y
	Add 15% CPOH on “Y”				342.63	
	TOTAL				2626.86	Z
	Add Cess @ 1% on “Z”				26.27	
	Cost for 120 metre				2653.13	
	Cost of 1 metre				22.11	
	Say				22.10	

26.73.2.3 150mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 16.20 cum (120 Rmt) 120 Rmt X 1.20 m X 0.15 (25 % hollow)					
	Cement for M-50 Mix = 6.885 T					
	Cement for M-40 Mix = 6.480 T					
	Difference 0.405 T					
0367	Portland Cement	tonne	0.405	5156.00	2088.18	
2209	Carriage of cement	tonne	0.405	0.00	0.00	
	Plasticizer for M-50 Mix = 137.700 Kgs					
	Plasticizer for M-40 Mix = 129.600 Kgs					
	Difference 8.100 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	8.100	30.00	243.00	
	TOTAL				2331.18	W
	Add 1 % Water charges on “W”				23.31	
	TOTAL				2354.49	X
	Add GST on “X” (multiplying factor 0.2127)				500.80	
	TOTAL				2855.29	Y
	Add 15% CPOH on “Y”				428.29	
	TOTAL				3283.58	Z
	Add Cess @ 1% on “Z”				32.84	
	Cost for 120 metre				3316.42	
	Cost of 1 metre				27.64	
	Say				27.65	

26.73.2.4 200mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 20.160 cum (120 Rmt) 120 Rmt X 1.20 m X0.20 (30 % hollow)					
	Cement for M-50 Mix = 8.568 T					
	Cement for M-40 Mix = 8.064 T					
	Difference 0.504 T					
0367	Portland Cement	tonne	0.504	5156.00	2598.62	
2209	Carriage of cement	tonne	0.504	0.00	0.00	
	Plasticizer for M-50 Mix = 171.360 Kgs					
	Plasticizer for M-40 Mix = 161.280 Kgs					
	Difference 10.080 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	10.080	30.00	302.40	
	TOTAL				2901.02	W
	Add 1 % Water charges on “W”				29.01	
	TOTAL				2930.03	X
	Add GST on “X” (multiplying factor 0.2127)				623.22	
	TOTAL				3553.25	Y
	Add 15% CPOH on “Y”				532.99	
	TOTAL				4086.24	Z
	Add Cess @ 1% on “Z”				40.86	
	Cost for 120 metre				4127.10	
	Cost of 1 metre				34.39	
	Say				34.40	

26.73.2.5 250mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 25.20 cum (120 Rmt) 120 Rmt X 1.20 m X 0.25 (30 % hollow)					
	Cement for M-50 Mix = 10.710 T					
	Cement for M-40 Mix = 10.080 T					
	Difference 0.630 T					
0367	Portland Cement	tonne	0.630	5156.00	3248.28	
2209	Carriage of cement	tonne	0.630	0.00	0.00	
	Plasticizer for M-50 Mix = 214.200 Kgs					
	Plasticizer for M-40 Mix = 201.600 Kgs					
	Difference 12.600 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	12.600	30.00	378.00	
	TOTAL				3626.28	W
	Add 1 % Water charges on “W”				36.26	
	TOTAL				3662.54	X
	Add GST on “X” (multiplying factor 0.2127)				779.02	
	TOTAL				4441.56	Y
	Add 15% CPOH on “Y”				666.23	
	TOTAL				5107.79	Z
	Add Cess @ 1% on “Z”				51.08	
	Cost for 120 metre				5158.87	
	Cost of 1 metre				42.99	
	Say				43.00	

26.73.2.6 300mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 30.24 cum (120 Rmt) 120 Rmt X 1.20 m X 0.30 (30 % hollow)					
	Cement for M-50 Mix = 12.852 T					
	Cement for M-40 Mix = 12.096 T					
	Difference 0.756 T					
0367	Portland Cement	tonne	0.756	5156.00	3897.94	
2209	Carriage of cement	tonne	0.756	0.00	0.00	
	Plasticizer for M-50 Mix = 257.040 Kgs					
	Plasticizer for M-40 Mix = 241.920 Kgs					
	Difference 15.1200 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	15.120	30.00	453.60	
	TOTAL				4351.54	W
	Add 1 % Water charges on “W”				43.52	
	TOTAL				4395.06	X
	Add GST on “X” (multiplying factor 0.2127)				934.83	
	TOTAL				5329.89	Y
	Add 15% CPOH on “Y”				799.48	
	TOTAL				6129.37	Z
	Add Cess @ 1% on “Z”				61.29	
	Cost for 120 metre				6190.66	
	Cost of 1 metre				51.59	
	Say				51.60	

26.73.2.7 350mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 35.28 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.35 (30 % hollow)					
	Cement for M-50 Mix = 14.994 T					
	Cement for M-40 Mix = 14.112 T					
	Difference 0.882 T					
0367	Portland Cement	tonne	0.882	5156.00	4547.59	
2209	Carriage of cement	tonne	0.882	0.00	0.00	
	Plasticizer for M-50 Mix = 299.880 Kgs					
	Plasticizer for M-40 Mix = 282.240 Kgs					
	Difference 17.640 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	17.640	30.00	529.20	
	TOTAL				5076.79	W
	Add 1 % Water charges on “W”				50.77	
	TOTAL				5127.56	X
	Add GST on “X” (multiplying factor 0.2127)				1090.63	
	TOTAL				6218.19	Y
	Add 15% CPOH on “Y”				932.73	
	TOTAL				7150.92	Z
	Add Cess @ 1% on “Z”				71.51	
	Cost for 120 metre				7222.43	
	Cost of 1 metre				60.19	
	Say				60.20	

26.73.2.8 400mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 40.32 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.40 (30 % hollow)					
	Cement for M-50 Mix = 17.136 T					
	Cement for M-40 Mix = 16.128 T					
	Difference 1.008 T					
0367	Portland Cement	tonne	1.008	5156.00	5197.25	
2209	Carriage of cement	tonne	1.008	0.00	0.00	
	Plasticizer for M-50 Mix = 342.720 Kgs					
	Plasticizer for M-40 Mix = 322.560 Kgs					
	Difference 20.160 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	20.160	30.00	604.80	
	TOTAL				5802.05	W
	Add 1 % Water charges on “W”				58.02	
	TOTAL				5860.07	X
	Add GST on “X” (multiplying factor 0.2127)				1246.44	
	TOTAL				7106.51	Y
	Add 15% CPOH on “Y”				1065.98	
	TOTAL				8172.49	Z
	Add Cess @ 1% on “Z”				81.72	
	Cost for 120 metre				8254.21	
	Cost of 1 metre				68.79	
	Say				68.80	

26.73.3 Extra for using M-60 (Cement content 440 kg) instead of M-40

26.73.3.1 100mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 10.80 cum (120 Rmt)					
	120 Rmt X 1.20 m X .10 (25 % hollow)					
	Cement for M-60 Mix = 4.752 T					
	Cement for M-40 Mix = 4.320 T					
	Difference 0.432 T					
0367	Portland Cement	tonne	0.432	5156.00	2227.39	
2209	Carriage of cement	tonne	0.432	0.00	0.00	
	Plasticizer for M-60 Mix = 95.040 Kgs					
	Plasticizer for M-40 Mix = 86.400 Kgs					
	Difference 8.640 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	8.640	30.00	259.20	
	TOTAL				2486.59	W
	Add 1 % Water charges on “W”				24.87	
	TOTAL				2511.46	X
	Add GST on “X” (multiplying factor 0.2127)				534.19	
	TOTAL				3045.65	Y
	Add 15% CPOH on “Y”				456.85	
	TOTAL				3502.50	Z
	Add Cess @ 1% on “Z”				35.03	
	Cost for 120 metre				3537.53	
	Cost of 1 metre				29.48	
	Say				29.50	

26.73.3.2 120mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 12.96 cum (120 Rmt)					
	120 Rmt X 1.20 m X .12 (25 % hollow)					
	Cement for M-60 Mix = 5.702 T					
	Cement for M-40 Mix = 5.184 T					
	Difference 0.518 T					
0367	Portland Cement	tonne	0.518	5156.00	2670.81	
2209	Carriage of cement	tonne	0.518	0.00	0.00	
	Plasticizer for M-60 Mix = 114.04 Kgs					
	Plasticizer for M-40 Mix = 103.680 Kgs					
	Difference 10.36 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	10.360	30.00	310.80	
	TOTAL				2981.61	W
	Add 1 % Water charges on “W”				29.82	
	TOTAL				3011.43	X
	Add GST on “X” (multiplying factor 0.2127)				640.53	
	TOTAL				3651.96	Y
	Add 15% CPOH on “Y”				547.79	
	TOTAL				4199.75	Z
	Add Cess @ 1% on “Z”				42.00	
	Cost for 120 metre				4241.75	
	Cost of 1 metre				35.35	
	Say				35.35	

26.73.3.3 150mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 16.20 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.15 (25 % hollow)					
	Cement for M-60 Mix = 7.128 T					
	Cement for M-40 Mix = 6.480 T					
	Difference 0.648 T					
0367	Portland Cement	tonne	0.648	5156.00	3341.09	
2209	Carriage of cement	tonne	0.648	0.00	0.00	
	Plasticizer for M-60 Mix = 142.56 Kgs					
	Plasticizer for M-40 Mix = 129.600 Kgs					
	Difference 12.960 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	12.960	30.00	388.80	
	TOTAL				3729.89	W
	Add 1 % Water charges on “W”				37.30	
	TOTAL				3767.19	X
	Add GST on “X” (multiplying factor 0.2127)				801.28	
	TOTAL				4568.47	Y
	Add 15% CPOH on “Y”				685.27	
	TOTAL				5253.74	Z
	Add Cess @ 1% on “Z”				52.54	
	Cost for 120 metre				5306.28	
	Cost of 1 metre				44.22	
	Say				44.20	

26.73.3.4 200mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 20.160 cum (120 Rmt)					
	120 Rmt X 1.20 m X0.20 (30 % hollow)					
	Cement for M-60 Mix = 8.870 T					
	Cement for M-40 Mix = 8.064 T					
	Difference 0.806 T					
0367	Portland Cement	tonne	0.806	5156.00	4155.74	
2209	Carriage of cement	tonne	0.806	0.00	0.00	
	Plasticizer for M-60 Mix = 177.40 Kgs					
	Plasticizer for M-40 Mix = 161.280 Kgs					
	Difference 16.12 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	16.120	30.00	483.60	
	TOTAL				4639.34	W
	Add 1 % Water charges on “W”				46.39	
	TOTAL				4685.73	X
	Add GST on “X” (multiplying factor 0.2127)				996.65	
	TOTAL				5682.38	Y
	Add 15% CPOH on “Y”				852.36	
	TOTAL				6534.74	Z
	Add Cess @ 1% on “Z”				65.35	
	Cost for 120 metre				6600.09	
	Cost of 1 metre				55.00	
	Say				55.00	

26.73.3.5 250mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 25.20 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.25 (30 % hollow)					
	Cement for M-60 Mix = 11.088 T					
	Cement for M-40 Mix = 10.080 T					
	Difference 1.008 T					
0367	Portland Cement	tonne	1.008	5156.00	5197.25	
2209	Carriage of cement	tonne	1.008	0.00	0.00	
	Plasticizer for M-60 Mix = 221.760 Kgs					
	Plasticizer for M-40 Mix = 201.600 Kgs					
	Difference 20.160 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	20.160	30.00	604.80	
	TOTAL				5802.05	W
	Add 1 % Water charges on “W”				58.02	
	TOTAL				5860.07	X
	Add GST on “X” (multiplying factor 0.2127)				1246.44	
	TOTAL				7106.51	Y
	Add 15% CPOH on “Y”				1065.98	
	TOTAL				8172.49	Z
	Add Cess @ 1% on “Z”				81.72	
	Cost for 120 metre				8254.21	
	Cost of 1 metre				68.79	
	Say				68.80	

26.73.3.6 300mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 30.24 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.30 (30 % hollow)					
	Cement for M-60 Mix = 13.306 T					
	Cement for M-40 Mix = 12.096 T					
	Difference 1.210 T					
0367	Portland Cement	tonne	1.210	5156.00	6238.76	
2209	Carriage of cement	tonne	1.210	0.00	0.00	
	Plasticizer for M-60 Mix = 266.12 Kgs					
	Plasticizer for M-40 Mix = 241.920 Kgs					
	Difference 24.20 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	24.200	30.00	726.00	
	TOTAL				6964.76	W
	Add 1 % Water charges on “W”				69.65	
	TOTAL				7034.41	X
	Add GST on “X” (multiplying factor 0.2127)				1496.22	
	TOTAL				8530.63	Y
	Add 15% CPOH on “Y”				1279.59	
	TOTAL				9810.22	Z
	Add Cess @ 1% on “Z”				98.10	
	Cost for 120 metre				9908.32	
	Cost of 1 metre				82.57	
	Say				82.55	

26.73.3.7 350mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 35.28 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.35 (30 % hollow)					
	Cement for M-60 Mix = 15.523 T					
	Cement for M-40 Mix = 14.112 T					
	Difference 1.411 T					
0367	Portland Cement (OPC-43 grade)	tonne	1.411	5156.00	7275.12	
2209	Carriage of Cement	tonne	1.411	0.00	0.00	
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	28.220	30.00	846.60	
	TOTAL				8121.72	W
	Add 1 % Water charges on “W”				81.22	
	TOTAL				8202.94	X
	Add GST on “X” (multiplying factor 0.2127)				1744.77	
	TOTAL				9947.71	Y
	Add 15% CPOH on “Y”				1492.16	
	TOTAL				11439.87	Z
	Add Cess @ 1% on “Z”				114.4	
	Cost of 120 RMT				11554.27	
	Cost for 1 Rmt				96.29	
	Say				96.30	

26.73.3.8 400mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 40.32 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.40 (30 % hollow)					
	Cement for M-60 Mix = 17.741 T					
	Cement for M-40 Mix = 16.128 T					
	Difference 1.613 T					
0367	Portland Cement	tonne	1.613	5156.00	8316.63	
2209	Carriage of cement	tonne	1.613	0.00	0.00	
	Plasticizer for M-60 Mix = 352.82 Kgs					
	Plasticizer for M-40 Mix = 322.560 Kgs					
	Difference 32.26 Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	32.260	30.00	967.80	
	TOTAL				9284.43	W
	Add 1 % Water charges on “W”				92.84	
	TOTAL				9377.27	X
	Add GST on “X” (multiplying factor 0.2127)				1994.55	
	TOTAL				11371.82	Y
	Add 15% CPOH on “Y”				1705.77	
	TOTAL				13077.59	Z
	Add Cess @ 1% on “Z”				130.78	
	Cost for 120 metre				13208.37	
	Cost of 1 metre				110.07	
	Say				110.05	

26.74 **Fabrication and manufacturing of solid precast concrete element with provisions of shear keys, connecting loops, dowel tubes and proper lifting accessories for walls, beams, slabs, stairs, column etc, of various thickness, shape and size of different concrete grades manufactured in controlled factory environment with approved methodology including moulds (Pallet system, Tilts form, table moulds, battery moulds, vertical moulds, beam moulds, column moulds, staircase moulds, Facade mould, etc.), mixing, transporting and placing of concrete, vibrating, curing, finishing, making necessary cutout/holes of required sizes for services, yard handling & stacking all complete as per IS 11447:1985 and as per approved shop drawings and design mix as per the direction of Engineer-in-Charge (Cost of reinforcement, Mechanical, Electrical and Plumbing inserts will be paid separately).**

Note: Excess/less cement over the specified cement content used as per design mix is payable/recoverable separately)

26.74.1 Concrete grade M-35 (Cement content 370 kgs)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1.26 Cum Considers a wall 2.80 X 3.00 X 0.15 = 1.260 Cum					
5.33.2.3	Rate as per Item No.5.33.2.3 of SH: RCC M25	cum	1.260	10162.35	12804.56	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	0.252	733.50	184.84	A
9999	Cost of hosting and fixing moulds	L.S.	372.000	2.27	844.44	
	Side Shuttering of walls ((2.8+3) x2x0.15=1.74)					
5.9.1	Rate as per item No.5.9.1 of SH : RCC	sqm	1.740	392.15	682.34	A
9999	Table buffing & oiling	L.S.	174.000	2.27	394.98	
9999	Sundries (Extra labour for Lifting, transportation, stacking of finished precast elements)	L.S.	230.000	2.27	522.10	
5.41.1	Rate as per item no 5.41.1 of SH RCC (Curing using curing compound)	sqm	18.540	69.05	1280.19	A
7929	Shear loops (6mm dia GI wire rope) (For vertical joints) 6 nos on each side	each	12.000	230.00	2760.00	
7930	dowel tubes (Corrugated GI pipes 50 to 80mm dia) (For horizontal joints	m	3.000	165.00	495.00	
9999	Shear key (6mm thick mechanically folded MS plate)	L.S.	115.000	2.27	261.05	
7931	Hooks for lifting (Alloy steel) having 2.5 tonne capacity	each	2.000	310.00	620.00	
	Labour for fixing accessories & inserts such as shear loops, shear keys, dowel tubes, lifting hooks					
0155	Mason (average)	day	0.500	857.00	428.50	
0115	Coolie	day	0.500	736.00	368.00	
	Labour for operating of hoisting & fixing moulds					
0157	Operator	day	0.500	897.00	448.50	
0116	Fitter (grade 1)	day	0.300	897.00	269.10	
0115	Coolie	day	0.300	736.00	220.80	
9999	Sundries (Labour cost such as crane, trailer(flat bed & a frames) & panel racks for stacking of precost concrete panel wall)	L.S.	173.410	2.27	393.64	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				22978.04	W
	Add 1 % Water charges on “W-A”				80.26	
	TOTAL				23058.30	X
	Add GST on “X-A” (multiplying factor 0.2127)				1724.22	
	TOTAL				24782.52	Y
	Add 15% CPOH on “Y-A”				1474.59	
	TOTAL				26257.11	Z
	Add Cess @ 1% on “Z-A”				113.05	
	Cost of 1.26cum				26370.16	
	Cost for 1 cum				20928.70	
	Say				20928.70	

26.74.2 Extra for using M-40 (Cement content 400 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cement for M-35 Mix = 0.370 T					
	Cement for M-40 Mix = 0.400 T					
	Difference 0.030 T					
0367	Portland Cement	tonne	0.030	5156.00	154.68	
2209	Carriage of cement	tonne	0.030	0.00	0.00	
	Plasticizer for M-35 Mix =7.400 Kgs					
	Plasticizer for M-40 Mix = 8.000 Kgs					
	Difference 0.600Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	0.600	30.00	18.00	
	TOTAL				172.68	W
	Add 1 % Water charges on “W”				1.73	
	TOTAL				174.41	X
	Add GST on “X” (multiplying factor 0.2127)				37.10	
	TOTAL				211.51	Y
	Add 15% CPOH on “Y”				31.73	
	TOTAL				243.24	Z
	Add Cess @ 1% on “Z”				2.43	
	Cost of 1.00 Cum				245.67	
	Say				245.65	

26.74.3 Extra for using M-50 (Cement content 425 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cement for M-35 Mix = 0.370 T					
	Cement for M-50 Mix = 0.425 T					
	Difference 0.055 T					
0367	Portland Cement	tonne	0.055	5156.00	283.58	
2209	Carriage of cement	tonne	0.055	0.00	0.00	
	Plasticizer for M-35 Mix =7.400 Kgs					
	Plasticizer for M-50 Mix = 8.500 Kgs					
	Difference 1.100Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	1.100	30.00	33.00	
	TOTAL				316.58	W
	Add 1 % Water charges on “W”				3.17	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				319.75	X
	Add GST on “X” (multiplying factor 0.2127)				68.01	
	TOTAL				387.76	Y
	Add 15% CPOH on “Y”				58.16	
	TOTAL				445.92	Z
	Add Cess @ 1% on “Z”				4.46	
	Cost of 1.00 Cum				450.38	
	Say				450.40	

26.74.4 Extra for using M-60 (Cement content 440 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cement for M-35 Mix = 0.370 T					
	Cement for M-60 Mix = 0.440 T					
	Difference 0.070 T					
0367	Portland Cement	tonne	0.070	5156.00	360.92	
2209	Carriage of cement	tonne	0.070	0.00	0.00	
	Plasticizer for M-35 Mix =7.400 Kgs					
	Plasticizer for M-60 Mix = 8.800 Kgs					
	Difference 1.400Kgs					
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	1.400	30.00	42.00	
	TOTAL				402.92	W
	Add 1 % Water charges on “W”				4.03	
	TOTAL				406.95	X
	Add GST on “X” (multiplying factor 0.2127)				86.56	
	TOTAL				493.51	Y
	Add 15% CPOH on “Y”				74.03	
	TOTAL				567.54	Z
	Add Cess @ 1% on “Z”				5.68	
	Cost of 1.00 Cum				573.22	
	Say				573.20	

26.75 Providing & laying in position Prestressing steel strands (low relaxation) on hollow core bed by using mechanical pulling arrangement like Rabbit/ Bed master including all accessories for Stressing & destressing operations as per approved make conforming to IS1343 & grade FY-1860 etc, complete as per drawings and direction of Engineer -in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Considering Four beds					
	8 strands (each strand is of 9.53mm dia consisting of 7 wires) X 4 beds X 120 Rmt X 0.453 Unit wt = 1739.52 kg. Say 1740kg.					
	Details of Cost for 1740 Kg					
	MATERIALS					
	Quantity = 17.40 quintal + Add wastage 10 % = 1.74 q. Total = 19.14 q					
0993	FY-1860 grade wire strands	quintal	19.140	7500.00	143550.00	
2205	Carriage of material	tonne	1.914	0.00	0.00	
	Cutting baldes required for strand cutting					
9999	Strand cutting by cutting saw machine	L.S.	555.000	2.27	1259.85	
	Wedges					
9999	Cost of wedge	L.S.	617.000	2.27	1400.59	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Resources - For laying and fixing cables, anchorages					
0128	Mate	day	1.000	816.00	816.00	
0102	Blacksmith 1st class	day	4.000	897.00	3588.00	
0115	Coolie	day	3.000	736.00	2208.00	
	Labour- For prestressting					
0128	Mate	day	2.000	816.00	1632.00	
0116	Fitter (Grade-1)	day	3.000	897.00	2691.00	
0157	Operators	day	2.000	897.00	1794.00	
0115	Coolie	day	2.000	736.00	1472.00	
	MACHINERY (12 HRS Required to Lay 1.914 Ton strands on 4 beds)					
0032	Stressing Machine (jack with pump)	day	1.500	12900.00	19350.00	
0028	Hire & Running Charges of Crane 20 Ton Capacity to handle strands (8 Nos. strand coils (averege weight 3Ton each) required to lay one bed of 8 strands as one coil can lay only one strand at a time. Therefore to operate one complete bed total 8 Nos strand coils required, hence total 3X8= 24 Ton weight will be handled for one bed)	day	1.500	7850.00	11775.00	
0034	Cutting Saw Machine	day	1.500	1500.00	2250.00	
0030	Hire charges of Generator 250 KVA	day	1.500	3350.00	5025.00	
0035	Strands Roller machinery for laying strands	day	1.500	3900.00	5850.00	
0036	Bed master (Pulling strands)	day	1.500	3350.00	5025.00	
0028	Crane handling charges for bed master & stressing machine. One bed master approx wt = 03 Ton (to be placed on each bed with the help of crane for laying of strands) One stressing Machine approx wt = 2.5 Ton (to be placed on each active ends of bed with the help of crane for initial pulling & stressing of strands). Handling & Shifting of bed master & stressing machine has to be done for each bed separately.	day	1.500	7850.00	11775.00	
1235	Diesel for generator set (14 litre per hour for 11 hour)	Litre	154.000	89.62	13801.48	
	TOTAL				235262.92	W
	Add 1 % Water charges on “W”				2352.63	
	TOTAL				237615.55	X
	Add GST on “X” (multiplying factor 0.2127)				50540.83	
	TOTAL				288156.38	Y
	Add 15% CPOH on “Y”				43223.46	
	TOTAL				331379.84	Z
	Add Cess @ 1% on “Z”				3313.80	
	Cost for 1740 kg				334693.64	
	Cost of 1 Kg				192.35	
	Say				192.35	

26.76 Transportation of Precast Elements by flat bed Trailor (Double / Triple axle 40ft Length with proper accessories like A frame etc) from factory, including the cost of loading , unloading & stacking at site with the help of required capacity cranes.

26.76.1 Lead within 15km

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Trailors having capcity 22MT Hire charges of truck trailors Number of trips in working day of 8 hours N=8/{(2L/S)+2)}. Where L=Lead in Km., S=Speed in Km.per hour, 1 hour is allowed for loading & 1 hour for unloading. L= 15 km . S= 15 km / hr N=8/{(30/15)+2)}=02 Trips / day					
9999	Charges of Trailors having capcity 22MT including cost of fuel & driver cost and maintenance	L.S.	1738.000	2.27	3945.26	
0028	Hire charges of Crane capacity of 30MT for loading from stock yard and unloading at site for 120 MT.	day	0.367	7850.00	2880.95	
0128	Mate	day	0.500	816.00	408.00	
0114	Beldar	day	0.500	736.00	368.00	
9999	wooden battens for tranporatation	L.S.	57.800	2.27	131.21	
9999	Chain for packing & binding precast elements	L.S.	57.800	2.27	131.21	
9999	sundries	L.S.	220.000	2.27	499.40	
	TOTAL				8364.03	W
	Add 1 % Water charges on “W”				83.64	
	TOTAL				8447.67	X
	Add GST on “X” (multiplying factor 0.2127)				1796.82	
	TOTAL				10244.49	Y
	Add 15% CPOH on “Y”				1536.67	
	TOTAL				11781.16	Z
	Add Cess @ 1% on “Z”				117.81	
	Cost for 22 MT				11898.97	
	Cost of 1 MT				540.86	
	Say				540.85	

26.76.2 Add/Deduct over item 26.76.1 for every additional lead of 5 km

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Extra for lead 5 km					
9999	Charges of Trailors having capcity 22MT including cost of fuel & driver and maintenance	L.S.	579.00	2.27	1314.33	
9999	sundries	L.S.	220.00	2.27	499.40	
	TOTAL				1813.73	W
	Add 1 % Water charges on “W”				18.14	
	TOTAL				1831.87	X
	Add GST on “X” (multiplying factor 0.2127)				389.64	
	TOTAL				2221.51	Y
	Add 15% CPOH on “Y”				333.23	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				2554.74	Z
	Add Cess @ 1% on "Z"				25.55	
	Cost for 22 MT				2580.29	
	Cost of 1 MT				117.29	
	Say				117.30	

26.77 Erection & Installation of Precast/Prestressed Concrete elements in correct & final position with proper line level and plumb at site making all arrangements (i.e cranes, push-pull jacks & all another T & P for lifting Placing & Alignment of elements, within erection tolerance as per IS 15916 as per approved shop drawings and all complete as per the direction of Engineer-in-Charge but excluding the cost of sim pads, non shrink grout and steel works i.e hangers. All work up to fifth floor.

26.77.1 Prestressed hollow core Slab up to 200 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 150 Sqm.					
	Length of element can be upto 8.00 metres.					
	Mobile crane (Tyre mounted) upto 25m height 100 feet boom					
0044	Cost for crane upto 40 tonne capacity	day	1.00	8950.00	8950.00	
9999	Hire charges of props & Misc	L.S.	434.00	2.27	985.18	
0070	Genrator hiring 100kva	hour	8.00	350.00	2800.00	
	Labour cost for erection					
0111	Carpenter 1st class	day	1.00	897.00	897.00	
0112	Carpenter 2nd class	day	2.00	816.00	1632.00	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0130	Mistry	day	2.00	897.00	1794.00	
0114	Beldar	day	2.00	736.00	1472.00	
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.27	1135.00	
	TOTAL				21459.18	W
	Add 1 % Water charges on "W"				214.59	
	TOTAL				21673.77	X
	Add GST on "X" (multiplying factor 0.2127)				4610.01	
	TOTAL				26283.78	Y
	Add 15% CPOH on "Y"				3942.57	
	TOTAL				30226.35	Z
	Add Cess @ 1% on "Z"				302.26	
	Cost for 150 Sqm				30528.61	
	Cost of 1 Sqm				203.52	
	Say				203.50	

26.77.2 Prestressed hollow core slab above 200 mm up to 400 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 120 Sqm. Length of element can be more than 8.00 metre and upto 14.00 metres.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0067	Cost for crane upto 80 tonne capacity	day	1.00	16800.00	16800.00	
9999	Hire charges of props & Misc	L.S.	347.00	2.27	787.69	
0070	Genrator hiring 100kva	hour	8.00	350.00	2800.00	
	Labour cost for erection					
0111	Carpenter 1st class	day	1.00	897.00	897.00	
0112	Carpenter 2nd class	day	2.00	816.00	1632.00	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0130	Mistry	day	2.00	897.00	1794.00	
0114	Beldar	day	2.00	736.00	1472.00	
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.27	1135.00	
	TOTAL				29111.69	W
	Add 1 % Water charges on “W”				291.12	
	TOTAL				29402.81	X
	Add GST on “X” (multiplying factor 0.2127)				6253.98	
	TOTAL				35656.79	Y
	Add 15% CPOH on “Y”				5348.52	
	TOTAL				41005.31	Z
	Add Cess @ 1% on “Z”				410.05	
	Cost for 120 Sqm				41415.36	
	Cost of 1 Sqm				345.13	
	Say				345.15	

26.77.3 Solid concrete wall elements

Code no	Description	Unit	Quantity	Rate	Amount	
	Detail of cost for 18 Cum. / Day Considering volume of different type of elements wall elements = 15 cum (13 nos) Beams / portal = 3 cum (02 nos) Total no of elements = 15 nos					
0072	Cost for crane (50 MT) duration 01 day	day	1.00	9500.00	9500.00	
9999	Shifting of elements	L.S.	434.00	2.27	985.18	
9999	Hire charges of props & Misc for 3 days (3x3 = 9 / pc)	L.S.	780.00	2.27	1770.60	
1027	Erection Bolts (Minimum 04 nos for each element)	each	60.00	25.00	1500.00	
0070	Genrator hiring 100kva	hour	8.00	350.00	2800.00	
	Labour cost					
0111	Carpenter 1st class	day	2.00	897.00	1794.00	
0112	Carpenter 2nd class	day	2.00	816.00	1632.00	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0130	Mistry	day	3.00	897.00	2691.00	
0116	Fitter (grade 1)	day	2.00	897.00	1794.00	
0114	Beldar	day	8.00	736.00	5888.00	
9999	Scaffolding, hire charge of drill machine etc.	L.S.	500.00	2.27	1135.00	
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.27	1135.00	
	TOTAL				34418.78	W
	Add 1 % Water charges on “W”				344.19	
	TOTAL				34762.97	X
	Add GST on “X” (multiplying factor 0.2127)				7394.08	
	TOTAL				42157.05	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				6323.56	
	TOTAL				48480.61	Z
	Add Cess @ 1% on "Z"				484.81	
	Cost for 18 cum				48965.42	
	Cost of 1 cum				2720.30	
	Say				2720.30	

26.78 Providing & Applying weather proof sealant on outer joints of approved make conforming to IS & directed by Engineer-in-charge.

26.78.1 Sealant 25mmx10mm at joints

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of material required for = 1.00 metre including 5 % wastage					
8646	Silicon sealant (including 5% wastage)	cartridge	0.87	125.00	108.75	
8654	Masking tape	metre	2.00	2.00	4.00	
9999	Scaffolding, hire charge etc.	L.S.	2.87	2.27	6.51	
9999	Sundries	L.S.	2.87	2.27	6.51	
	TOTAL				125.77	W
	Add 1 % Water charges on "W"				1.26	
	TOTAL				127.03	X
	Add GST on "X" (multiplying factor 0.2127)				27.02	
	TOTAL				154.05	Y
	Add 15% CPOH on "Y"				23.11	
	TOTAL				177.16	Z
	Add Cess @ 1% on "Z"				1.77	
	Cost of 1 metre				178.93	
	Say				178.95	

26.79 Providing & Laying of levelling sim pads required sizes (5x5cm to 10x10cm) of PVC / Rubber to adjust level of bearing surface of supporting members as per the direction of Engineer in charge.

26.79.1 2mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 Nos.					
	MATERIAL					
0246	2 mm thick sim pad	each	100.00	11.00	1100.00	
9977	Carriage of material	L.S.	5.00	2.27	11.35	
	LABOUR					
0116	Fitter (Grade-1)	day	1.00	897.00	897.00	
9999	Sundries	L.S.	10.00	2.27	22.70	
	TOTAL				2031.05	W
	Add 1 % Water charges on "W"				20.31	
	TOTAL				2051.36	X
	Add GST on "X" (multiplying factor 0.2127)				436.32	
	TOTAL				2487.68	Y
	Add 15% CPOH on "Y"				373.15	
	TOTAL				2860.83	Z
	Add Cess @ 1% on "Z"				28.61	
	Cost for100 Nos.				2889.44	
	Cost of each				28.89	
	Say				28.90	

26.79.2 5 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 Nos.					
	MATERIAL					
0247	5 mm thick sim pad	each	100.00	16.00	1600.00	
9977	Carriage of material	L.S.	5.00	2.27	11.35	
	LABOUR					
0116	Fitter (Grade-1)	day	1.00	897.00	897.00	
9999	Sundries	L.S.	10.00	2.27	22.70	
	TOTAL				2531.05	W
	Add 1 % Water charges on “W”				25.31	
	TOTAL				2556.36	X
	Add GST on “X” (multiplying factor 0.2127)				543.74	
	TOTAL				3100.10	Y
	Add 15% CPOH on “Y”				465.02	
	TOTAL				3565.12	Z
	Add Cess @ 1% on “Z”				35.65	
	Cost for100 Nos				3600.77	
	Cost of each				36.01	
	Say				36.00	

26.79.3 10 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 100 Nos.					
	MATERIAL					
0248	10 mm thick sim pad	each	100.00	27.00	2700.00	
9977	Carriage of material	L.S	5.00	2.27	11.35	
	LABOUR					
0116	Fitter (Grade-1)	day	1.00	897.00	897.00	
9999	Sundries	LS	10.00	2.27	22.70	
	TOTAL				3631.05	W
	Add 1 % Water charges on “W”				36.31	
	TOTAL				3667.36	X
	Add GST on “X” (multiplying factor 0.2127)				780.05	
	TOTAL				4447.41	Y
	Add 15% CPOH on “Y”				667.11	
	TOTAL				5114.52	Z
	Add Cess @ 1% on “Z”				51.15	
	Cost for100 Nos				5165.67	
	Cost of each				51.66	
	Say				51.65	

26.80 Providing & Grouting of dowel tubes / Shear keys / Joints of precast members with M-60 grade cementitious grout (Non Shrink) of approved make by suitable means (Free flowing / pump),curing etc. Complete as per directions of Engineer-in-charge. (The payment shall be made on the basis of actual weight of approved grout injected.)

26.80.1 Stirrer mixed cementitious grout (non shrink) of approved make in dowel tubes / Shear keys / Joints of precast members.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 250 kg non shrink cementi-tious grout					
	including 5 % wastage					
1251	M-60 grade cemetitious grout (Non Shrink)	kg	262.50	28.00	7350.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2209	Carriage of cementitious material	tonne	0.25	0.00	0.00	
9999	Grouting charges of Stirrer mixed cementitious grout, rubber, pipe and other accessories hire charges of plant, machinery including necessary fuel and transportation of site	L.S.	2250.00	2.27	5107.50	
	LABOUR					
0122	Mason (for plaster of paris work) 1st class	day	1.00	897.00	897.00	
0155	Masson (Average)	day	1.00	857.00	857.00	
0161	Helper (Technician)	day	1.00	736.00	736.00	
	TOTAL				14947.50	W
	Add 1 % Water charges on “W”				149.48	
	TOTAL				15096.98	X
	Add GST on “X” (multiplying factor 0.2127)				3211.13	
	TOTAL				18308.11	Y
	Add 15% CPOH on “Y”				2746.22	
	TOTAL				21054.33	Z
	Add Cess @ 1% on “Z”				210.54	
	Cost for 250 Kg				21264.87	
	Cost of 1 Kg				85.06	
	Say				85.05	

26.81 Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100grams/sqm and shading coefficient minimum 75% around the construction site/ for vertical extension as per requirement including fastening/tying with building/scaffolding pipes or with any other fixtures etc. complete as per direction of Engineer-in-Charge. (One time payment shall be made for providing Scaffolding net from start of work till completion of work including shifting if any. The Scaffolding net shall be the property of the contractor on completion of the work)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 300 sqm.					
	MATERIALS:					
8761	Scaffolding net	sqm	300.00	24.00	7200.00	P
9999	Carriage	L.S.	3.00	2.27	6.81	
	Less Salvage value taken 25% on (P)				-1800.00	
	LABOUR:					
0114	Beldar	day	1.00	736.00	736.00	
9999	Sundries for tying the net	L.S.	10.00	2.27	22.70	
	Total				6165.51	W
	Add 1% for water charges				61.66	
	Total				6227.17	X
	Add GST on “X” (multiplying factor 0.2127)				1324.52	
	Total				7551.69	Y
	Add CPOH @ 15% on “Y”				1132.75	
	Total				8684.44	Z
	Add Cess @ 1% on “Z”				86.84	
	Cost of 300 Sqm.				8771.28	
	Cost of 1 Sqm.				29.24	
	Say				29.25	

26.82 Providing and laying rigid EPS (cellular plastic material) blocks conforming to ASTM standards/ specifications of minimum density 21.60 Kg/cum on floors, steps, stage etc. of required size and shape as per direction of the Engineer-in-Charge. This shall include the following operation. The EPS blocks shall be cut to required shape and sizes including cuttings for passing of services, joined together with synthetic resin adhesives as per relevant specifications and packed/placed in position for stepped floor or platform formation. The top and sides surfaces to be provided with GI woven wire mesh of aperture 5.45 mm (with wire dia 0.90 mm) secured to EPS blocks with wire pins/clips. Horizontal top surface to be provided with 20 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate upto 6mm chippings) and vertical surface to be provided with 12mm cement plaster 1:4 (1 cement : 4 coarse sand). The concrete/plastered surfaces so prepared shall be scratched with wire brushes to form burrs, so as to act as base for flooring or veneering/panelling to be done later as per approved design (which shall be paid for separately complete as per direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for a Lecture Hall of area 8.40 x 16.00= 134.40 Sqm Assuming stepped floor for a Lecture Hall having 8 rows and each row by 100mm higher than the previous one. (Assuming 8 rows 1.50 meter wide and four columns also 1.5 meter wide with 1.2 meter wide passage between row 1 and 2, 3 and 4 and front lecturer pedestrian. Material EPS blocks in sizes of = 1.20x1.20x0.10 m 8.40 m x 12 m x 0.45 m = 45.90 cum 8.40 m x 3 m x 0.15 m = 3.78 cum 49.68 cum Say = 50.00 cum 50 cum @ 21.60 Kg/cum. Total = 1080.00 kg					
5744	EPS blocks GI woven mesh of aperture 5.45 mm (with wire of dia 0.90 mm = 134.40 sqm + 13.60 sqm = 150.00 sqm @ 1.61 Kg/sqm. Total = 241.50 kgs	kg	1080.00	160.00	172800.00	
5745	GI woven mesh of aperture 5.45 mm (with wire of dia 0.90 mm Total surface area to be joined 504 sqm considering 1/6th area for adhesive i.e. 84 sqm @ 100 Gm/sqm. Total = 8.50 kgs	kg	241.50	65.00	15697.50	
5746	SR adhesive for joining EPS blocks	kg	8.50	190.00	1615.00	
9999	Wire pins/clips to secure IRC mesh to EPS blocks	L.S.	675.00	2.27	1532.25	
9999	T&P sundries i/c cutting tools etc.	L.S.	340.00	2.27	771.80	
	Labour:- For cutting arranging & packing the EPS blocks in position including jointing with SR adhesive and making arranging/cutting for fixing of services and fixing IRC welded mesh to EPS blocks.					
0156	Fitter/Carpenter (average)	day	2.00	857.00	1714.00	
0114	Beldar	day	1.00	736.00	736.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Cement concrete 1:2:4 (1 cement : 2 cement sand : 4 graded stone clippings upto 6 mm size) 134.4x0.025 = 3.36 cum					
4.1.3	Rate as per item no 4.1.3 SH:4 (Cement Concrete)	cum	3.36	7878.50	26471.76	A
	12mm cement plaster 1:4 (1 cement : 4 coarse sand)					
13.4.1	Rate as per item no 13.4.1 SH:13 (Finishing)	sqm	9.24	357.35	3301.91	A
0155	Mason (average) for making burrs	day	1.00	857.00	857.00	
	Total				225497.22	W
	Add 1 % Water charges on “W-A”				1957.24	
	TOTAL				227454.46	X
	Add GST on “X-A” (multiplying factor 0.2127)				42046.70	
	TOTAL				269501.16	Y
	Add 15% CPOH on “Y-A”				35959.12	
	TOTAL				305460.28	Z
	Add Cess @ 1% on “Z-A”				2756.87	
	Cost of 134.40 sqm				308217.15	
	Cost of 1 sqm				2293.28	
	Say				2293.30	

26.83 **Applying stamping finish to the top surface of freshly laid plain/reinforced cement concrete of specified grade in porticos, sidewalks, driveways, pool decks and open yards as per direction of the Engineer-in-Charge. The process shall include the following:-**
• The concrete shall be placed and screeded to the finished grade, and floated to a uniform surface by using standard finishing techniques. The approved color hardener @ 2.7 kg/sqm shall be applied evenly to the surface of the fresh concrete by the dry shake method by sprinkling in two or more shakes, floated after each shake and trowelled only after the final floating. The approved release agent @ 0.113 kg/sqm shall be applied evenly to the trowelled surface before stamping or the said release agent can be applied to the flexible polyurethane stamp moulds of approved design and in required sizes to achieve final stamped pattern. These stampings shall be placed on the surface of concrete in three to four pieces at a time and tapped gently with rammers of sufficient size & weight to leave proper stamp marks and the process repeated for the remaining concrete surface till the whole surface to be stamped is completed within the time while concrete is in plastic stage of setting.
• After stamping, the curing shall be done as per manufactures specifications. After initial curing the imprinted joints shall be grouted using cement slurry mixed with color hardener as per the requirement. The surface shall be sealed by applying acrylic based sealer not less than 0.167 litre/sqm.on finished surface.
• The construction joints shall be provided by groove cutting of size 4mm x 20mm in panel size 3m x 3 m or lesser as per the site conditions and filling the same with 10 mm baker rod and providing and laying (PU) Polyurethane based joint sealer of approved make as per manufacturer’s specifications and finished by applying Polyurethane resin based top protective clear coat of minimum 80 micron applied with rollers on properly cured and dry clean surface. (Cost of concrete for flooring is not included in this item which shall be paid separately.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 Sqm					
	Material					
7224	Concrete hardener	Kg	297.00	24.00	7128.00	
7225	Release agent	Litre	1.35	235.00	317.25	
7226	Sealer	Kg	17.50	290.00	5075.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7227	PU resin top coat	Kg	23.00	245.00	5635.00	
9999	T&P like tollers of various sizes dewatering machines i/c floaters and suckers, brushes and water jet etc. (rentals only)	L.S.	6000.00	2.27	13620.00	
	Labour for spreading/sprinkling the floor hardeners, floating, trowelling, spreading the release agent, stamp molds, tapping of molds into concrete shifting of molds for repeat process, grouting the joints and applying sealers and finishing etc.					
0169	Specialized technicians	day	6.00	973.00	5838.00	
0124	Assistant/Operators (Second Class Mason)	day	6.00	816.00	4896.00	
0123	Mason 1st class for grouting repairs & applying sealer etc.	day	2.00	897.00	1794.00	
0131	Painter	day	1.00	816.00	816.00	
0114	Helper/Beldar	day	10.00	736.00	7360.00	
9999	Sundries for grouts pigments etc.	L.S.	500.00	2.27	1135.00	
	Total				53614.25	W
	Add 1 % Water charges on “W”				536.14	
	TOTAL				54150.39	X
	Add GST on “X” (multiplying factor 0.2127)				11517.79	
	TOTAL				65668.18	Y
	Add 15% CPOH on “Y”				9850.23	
	TOTAL				75518.41	Z
	Add Cess @ 1% on “Z”				755.18	
	Cost of 100 sqm				76273.59	
	Cost of 1 sqm				762.74	
	Say				762.75	

26.84 Supplying and laying of Uni-Axial Woven Polyster Geogrid conforming to MORTH 3100 and IRC113, as soil reinforcement/basal reinforcement including accessories like tie-strips, nuts & bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geo-grids and all other activities required for reinforced soil walls, slopes etc complete as per design requirements, manufacturer specifications and as per direction of engineer-in- charge.

26.84.1 Uni Axial Woven polyster geogrid of minimum tensile strength 40KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8979	Uni Axial Woven polyster geogrid of minimum tensile strength 40KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.	sqm	300.00	159.00	47700.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)				2385.00	
	LABOUR:					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				57242.76	W
	Add 1 % Water charges on “W”				572.43	
	TOTAL				57815.19	X
	Add GST on “X” (multiplying factor 0.2127)				12297.29	
	TOTAL				70112.48	Y
	Add 15% CPOH on “Y”				10516.87	
	TOTAL				80629.35	Z
	Add Cess @ 1% on “Z”				806.29	
	Cost of 300 sqm				81435.64	
	Cost of 1 sqm				271.45	
	Say				271.45	

26.84.2 Uni Axial Woven polyster geogrid of minimum tensile strength 60KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8980	Uni Axial Woven polyster geogrid of minimum tensile strength 60KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.	sqm	300.00	185.00	55500.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				2775.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				65432.76	W
	Add 1 % Water charges on “W”				654.33	
	TOTAL				66087.09	X
	Add GST on “X” (multiplying factor 0.2127)				14056.72	
	TOTAL				80143.81	Y
	Add 15% CPOH on “Y”				12021.57	
	TOTAL				92165.38	Z
	Add Cess @ 1% on “Z”				921.65	
	Cost of 300 sqm				93087.03	
	Cost of 1 sqm				310.29	
	Say				310.30	

26.84.3 Uni Axial Woven polyster geogrid of minimum tensile strength 80 KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8981	Uni Axial Woven polyster geogrid of minimum tensile strength 80 KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	300.00	235.00	70500.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				3525.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				81182.76	W
	Add 1 % Water charges on “W”				811.83	
	TOTAL				81994.59	X
	Add GST on “X” (multiplying factor 0.2127)				17440.25	
	TOTAL				99434.84	Y
	Add 15% CPOH on “Y”				14915.23	
	TOTAL				114350.07	Z
	Add Cess @ 1% on “Z”				1143.50	
	Cost of 300 sqm				115493.57	
	Cost of 1 sqm				384.98	
	Say				385.00	

26.84.4 Uni Axial Woven polyster geogrid of minimum tensile strength 100KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8982	Uni Axial Woven polyster geogrid of minimum tensile strength 100KN/m in the Longitudinal direction and 30KN/m in the Transverse direction.	sqm	300.00	272.00	81600.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				4080.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				92837.76	W
	Add 1 % Water charges on “W”				928.38	
	TOTAL				93766.14	X
	Add GST on “X” (multiplying factor 0.2127)				19944.06	
	TOTAL				113710.20	Y
	Add 15% CPOH on “Y”				17056.53	
	TOTAL				130766.73	Z
	Add Cess @ 1% on “Z”				1307.67	
	Cost of 300 sqm				132074.40	
	Cost of 1 sqm				440.25	
	Say				440.25	

26.84.5 Uni Axial Woven polyster geogrid of minimum tensile strength 120KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8983	Uni Axial Woven polyster geogrid of minimum tensile strength 120KN/m in the Longitudinal direction and 30KN/m in the Transverse direction.	sqm	300.00	292.00	87600.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				4380.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				99137.76	W
	Add 1 % Water charges on “W”				991.38	
	TOTAL				100129.14	X
	Add GST on “X” (multiplying factor 0.2127)				21297.47	
	TOTAL				121426.61	Y
	Add 15% CPOH on “Y”				18213.99	
	TOTAL				139640.60	Z
	Add Cess @ 1% on “Z”				1396.41	
	Cost of 300 sqm				141037.01	
	Cost of 1 sqm				470.12	
	Say				470.10	

26.84.6 Uni Axial Woven polyster geogrid of minimum tensile strength 150KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8984	Uni Axial Woven polyster geogrid of minimum tensile strength 150KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	300.00	366.00	109800.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)				5490.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				122447.76	W
	Add 1 % Water charges on “W”				1224.48	
	TOTAL				123672.24	X
	Add GST on “X” (multiplying factor 0.2127)				26305.09	
	TOTAL				149977.33	Y
	Add 15% CPOH on “Y”				22496.60	
	TOTAL				172473.93	Z
	Add Cess @ 1% on “Z”				1724.74	
	Cost of 300 sqm				174198.67	
	Cost of 1 sqm				580.66	
	Say				580.65	

26.84.7 Uni Axial Woven polyster geogrid of minimum tensile strength 200KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8985	Uni Axial Woven polyster geogrid of minimum tensile strength 200KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	300.00	431.00	129300.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				6465.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				142922.76	W
	Add 1 % Water charges on “W”				1429.23	
	TOTAL				144351.99	X
	Add GST on “X” (multiplying factor 0.2127)				30703.67	
	TOTAL				175055.66	Y
	Add 15% CPOH on “Y”				26258.35	
	TOTAL				201314.01	Z
	Add Cess @ 1% on “Z”				2013.14	
	Cost of 300 sqm				203327.15	
	Cost of 1 sqm				677.76	
	Say				677.75	

26.84.8 Uni Axial Woven polyster geogrid of minimum tensile strength 250KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8986	Uni Axial Woven polyster geogrid of minimum tensile strength 250KN/m in the Longitudinal direction and 30KN/m in the Transverse direction.	sqm	300.00	526.00	157800.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)				7890.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				172847.76	W
	Add 1 % Water charges on “W”				1728.48	
	TOTAL				174576.24	X
	Add GST on “X” (multiplying factor 0.2127)				37132.37	
	TOTAL				211708.61	Y
	Add 15% CPOH on “Y”				31756.29	
	TOTAL				243464.90	Z
	Add Cess @ 1% on “Z”				2434.65	
	Cost of 300 sqm				245899.55	
	Cost of 1 sqm				819.67	
	Say				819.65	

26.84.9 Uni Axial Woven polyster geogrid of minimum tensile strength 300KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8987	Uni Axial Woven polyster geogrid of minimum tensile strength 300KN/m in the Longitudinal direction and 30KN/m in the Transverse direction.	sqm	300.00	608.00	182400.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)				9120.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				198677.76	W
	Add 1 % Water charges on “W”				1986.78	
	TOTAL				200664.54	X
	Add GST on “X” (multiplying factor 0.2127)				42681.35	
	TOTAL				243345.89	Y
	Add 15% CPOH on “Y”				36501.88	
	TOTAL				279847.77	Z
	Add Cess @ 1% on “Z”				2798.48	
	Cost of 300 sqm				282646.25	
	Cost of 1 sqm				942.15	
	Say				942.15	

26.85 Supplying and laying of Bi-Axial Woven Polyster Geogrid conforming to MORTH 3100 and IRC113, as soil reinforcement/basal reinforcement of granular road base and sub base, area stalilization, track bed stabilization, load transfer platforms Including accessories like tie-strips, nuts & bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geo-grids and all other activities required etc. complete as per design requirements, manufacturer specifications and as per direction of engineer-in- charge.

26.85.1 Bi Axial Woven polyster geogrid of minimum tensile strength 20KN/m in both Longitudinal and Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8988	Bi Axial Woven polyster geogrid of minimum tensile strength 20KN/m in both Longitudinal and Transverse direction.	sqm	300.00	131.00	39300.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				1965.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				48422.76	W
	Add 1 % Water charges on “W”				484.23	
	TOTAL				48906.99	X
	Add GST on “X” (multiplying factor 0.2127)				10402.52	
	TOTAL				59309.51	Y
	Add 15% CPOH on “Y”				8896.43	
	TOTAL				68205.94	Z
	Add Cess @ 1% on “Z”				682.06	
	Cost of 300 sqm				68888.00	
	Cost of 1 sqm				229.63	
	Say				229.65	

26.85.2 Bi Axial Woven polyster geogrid of minimum tensile strength 40KN/m in both Longitudinal and Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8989	Bi Axial Woven polyster geogrid of minimume tensile strength 40KN/m in both Longitudinal and Transverse direction.	sqm	300.00	198.00	59400.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				2970.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				69527.76	W
	Add 1 % Water charges on “W”				695.28	
	TOTAL				70223.04	X
	Add GST on “X” (multiplying factor 0.2127)				14936.44	
	TOTAL				85159.48	Y
	Add 15% CPOH on “Y”				12773.92	
	TOTAL				97933.40	Z
	Add Cess @ 1% on “Z”				979.33	
	Cost of 300 sqm				98912.73	
	Cost of 1 sqm				329.71	
	Say				329.70	

26.85.3 Bi Axial Woven polyster geogrid of minimum tensile strength 60KN/m in both Longitudinal and Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of Cost for 300 Sqm.					
	MATERIALS:					
8990	Bi Axial Woven polyster geogrid of minimum tensile strength 60KN/m in both Longitudinal and Transverse direction.	sqm	300.00	256.00	76800.00	P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				3840.00	
	LABOUR:					
0128	Mate	day	0.36	816.00	293.76	
0114	Beldar	day	6.00	736.00	4416.00	
0139	Skilled Beldar	day	3.00	816.00	2448.00	
	Total				87797.76	W
	Add 1 % Water charges on “W”				877.98	
	TOTAL				88675.74	X
	Add GST on “X” (multiplying factor 0.2127)				18861.33	
	TOTAL				107537.07	Y
	Add 15% CPOH on “Y”				16130.56	
	TOTAL				123667.63	Z
	Add Cess @ 1% on “Z”				1236.68	
	Cost of 300 sqm				124904.31	
	Cost of 1 sqm				416.35	
	Say				416.35	

26.86 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/Clerestory windows & other Frames/Chowkhat comprising of virgin PVC polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm2, modulus of elasticity 900 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-In- Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately).

Note: For WPC solid door/window frames, minus 5mm tolerance in dimensions i.e depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.

26.86.1 Frame size 45 x 70 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of door frame/ chowkhat of size 1.00x2.10m (1.00+2.1+2.10=5.20m)					
	Materials					
5747	Factory made single extruded WPC (Wood Polymer Composite) solid wood/ window/ clerestory window frames/ chowkhat i/c carriage of frame Frame size 45x 70mm	metre	5.20	385.00	2002.00	
	Labour					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws.	L.S.	10.00	2.27	22.70	
	TOTAL				2579.93	W
	Add 1 % Water charges on “W”				25.8	
	TOTAL				2605.73	X
	Add GST on “X” (multiplying factor 0.2127)				554.24	
	TOTAL				3159.97	Y
	Add 15% CPOH on “Y”				474	
	TOTAL				3633.97	Z
	Add Cess @ 1% on “Z”				36.34	
	Cost of 5.20 metre				3670.31	
	Cost of 1 metre				705.83	
	Say				705.85	

26.86.2 Frame size 45 x 85 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/ chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)					
	MATERIAL					
5748	Factory made single extruded WPC (Wood Polymer Composite) solid door/window, clerestory windows & other Frames/ Chowkhat of frame size 45 x 85 mm including carriage of frame	metre	5.20	540.00	2808.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.27	22.70	
	TOTAL				3385.93	W
	Add 1 % Water charges on “W”				33.86	
	TOTAL				3419.79	X
	Add GST on “X” (multiplying factor 0.2127)				727.39	
	TOTAL				4147.18	Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 15% CPOH on "Y"				622.08	
	TOTAL				4769.26	Z
	Add Cess @ 1% on "Z"				47.69	
	Cost of 5.20 metre				4816.95	
	Cost of 1 metre				926.34	
	Say				926.35	

26.86.3 Frame size 50 x 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/ chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre)					
	MATERIAL					
5749	Factory made single extruded WPC (Wood Polymer Composite) solid door/window, clerestory windows & other Frames/ Chowkhat of frame size 50 x 100 mm including carriage of frame	metre	5.20	555.00	2886.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.27	22.70	
	TOTAL				3463.93	W
	Add 1 % Water charges on "W"				34.64	
	TOTAL				3498.57	X
	Add GST on "X" (multiplying factor 0.2127)				744.15	
	TOTAL				4242.72	Y
	Add 15% CPOH on "Y"				636.41	
	TOTAL				4879.13	Z
	Add Cess @ 1% on "Z"				48.79	
	Cost of 5.20 metre				4927.92	
	Cost of 1 metre				947.68	
	Say				947.70	

26.86.4 Frame size 50 x 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/ chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)					
	MATERIAL					
5750	Factory made single extruded WPC (Wood Polymer Composite) solid door/window, clerestory windows & other Frames/ Chowkhat of frame size 50 x 125 mm including carriage of frame	metre	5.20	645.00	3354.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.27	22.70	
	TOTAL				3931.93	W
	Add 1 % Water charges on “W”				39.32	
	TOTAL				3971.25	X
	Add GST on “X” (multiplying factor 0.2127)				844.68	
	TOTAL				4815.93	Y
	Add 15% CPOH on “Y”				722.39	
	TOTAL				5538.32	Z
	Add Cess @ 1% on “Z”				55.38	
	Cost of 5.20 metre				5593.70	
	Cost of 1 metre				1075.71	
	Say				1075.70	

26.86.5 Frame size 65 x 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/ chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)					
	MATERIAL					
5751	Factory made single extruded WPC (Wood Polymer Composite) solid door/window, clerestory windows & other Frames/ Chowkhat of frame size 65 x 100 mm in-cluding carriage of frame	metre	5.20	670.00	3484.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.27	22.70	
	TOTAL				4061.93	W
	Add 1 % Water charges on “W”				40.62	
	TOTAL				4102.55	X
	Add GST on “X” (multiplying factor 0.2127)				872.61	
	TOTAL				4975.16	Y
	Add 15% CPOH on “Y”				746.27	
	TOTAL				5721.43	Z
	Add Cess @ 1% on “Z”				57.21	
	Cost of 5.20 metre				5778.64	
	Cost of 1 metre				1111.28	
	Say				1111.30	

26.86.6 Frame size 65 x 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/ chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)					
	MATERIAL					
5752	Factory made single extruded WPC (Wood Polymer Composite) solid door/window, clerestory windows & other Frames/ Chowkhat of frame size 65 x 125 mm including carriage of frame	metre	5.20	860.00	4472.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.27	22.70	
	TOTAL				5049.93	W
	Add 1 % Water charges on “W”				50.50	
	TOTAL				5100.43	X
	Add GST on “X” (multiplying factor 0.2127)				1084.86	
	TOTAL				6185.29	Y
	Add 15% CPOH on “Y”				927.79	
	TOTAL				7113.08	Z
	Add Cess @ 1% on “Z”				71.13	
	Cost of 5.20 metre				7184.21	
	Cost of 1 metre				1381.58	
	Say				1381.60	

26.86.7 Frame size 65 x 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/ chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)					
	MATERIAL					
5753	Factory made single extruded WPC (Wood Polymer Composite) solid door/window, clerestory windows & other Frames/ Chowkhat of frame size 65 x 150 mm including carriage of frame	metre	5.20	1040.00	5408.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	857.00	85.70	
0155	Mason (average)	day	0.17	857.00	145.69	
0114	Beldar	day	0.44	736.00	323.84	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.27	22.70	
	TOTAL				5985.93	W
	Add 1 % Water charges on “W”				59.86	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				6045.79	X
	Add GST on “X” (multiplying factor 0.2127)				1285.94	
	TOTAL				7331.73	Y
	Add 15% CPOH on “Y”				1099.76	
	TOTAL				8431.49	Z
	Add Cess @ 1% on “Z”				84.31	
	Cost of 5.20 metre				8515.80	
	Cost of 1 metre				1637.65	
	Say				1637.65	

26.87 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/ moisture proof and fire retardant and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)

26.87.1 30 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for door shutter of size 2.20 sqm.					
	MATERIAL					
5754	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 30mm thick	sqm	2.20	2880.00	6336.00	
9977	Carriage of door shutter	L.S.	29.64	2.27	67.28	
	LABOUR					
	For fixing shutter					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				6721.88	W
	Add 1 % Water charges on “W”				67.22	
	TOTAL				6789.10	X
	Add GST on “X” (multiplying factor 0.2127)				1444.04	
	TOTAL				8233.14	Y
	Add 15% CPOH on “Y”				1234.97	
	TOTAL				9468.11	Z
	Add Cess @ 1% on “Z”				94.68	
	Cost of 2.20 sqm.				9562.79	
	Cost of 1 sqm.				4346.72	
	Say				4346.70	

26.87.2 35 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for door shutter of size 2.20 sqm.					
	MATERIAL					
5755	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 35 mm thick	sqm	2.20	3350.00	7370.00	
9977	Carriage of door shutter	L.S.	29.64	2.27	67.28	
	LABOUR					
	For fixing shutter					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				7755.88	W
	Add 1 % Water charges on “W”				77.56	
	TOTAL				7833.44	X
	Add GST on “X” (multiplying factor 0.2127)				1666.17	
	TOTAL				9499.61	Y
	Add 15% CPOH on “Y”				1424.94	
	TOTAL				10924.55	Z
	Add Cess @ 1% on “Z”				109.25	
	Cost of 2.20 sqm.				11033.80	
	Cost of 1 sqm.				5015.36	
	Say				5015.35	

26.88 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/ wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)

26.88.1 30 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for door shutter of size 2.20 sqm.					
	MATERIAL					
5754	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 30mm thick	sqm	2.20	2880.00	6336.00	
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	4.40	130.00	572.00	
9977	Carriage of door shutter	L.S.	29.64	2.27	67.28	
	LABOUR					
	For pasting PVC laminated foil to door shutter and fixing door shutter at position					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.30	736.00	220.80	
	TOTAL				7367.48	W
	Add 1 % Water charges on “W”				73.67	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				7441.15	X
	Add GST on “X” (multiplying factor 0.2127)				1582.73	
	TOTAL				9023.88	Y
	Add 15% CPOH on “Y”				1353.58	
	TOTAL				10377.46	Z
	Add Cess @ 1% on “Z”				103.77	
	Cost of 2.20 sqm.				10481.23	
	Cost of 1 sqm.				4764.20	
	Say				4764.20	

26.88.2 35 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for door shutter of size 2.20 sqm.					
	MATERIAL					
5755	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 35 mm thick	sqm	2.20	3350.00	7370.00	
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	4.40	130.00	572.00	
9977	Carriage of door shutter	L.S.	29.64	2.27	67.28	
	LABOUR					
	For pasting PVC laminated foil to door shutter and fixing door shutter at position					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.30	736.00	220.80	
	TOTAL				8401.48	W
	Add 1 % Water charges on “W”				84.01	
	TOTAL				8485.49	X
	Add GST on “X” (multiplying factor 0.2127)				1804.86	
	TOTAL				10290.35	Y
	Add 15% CPOH on “Y”				1543.55	
	TOTAL				11833.90	Z
	Add Cess @ 1% on “Z”				118.34	
	Cost of 2.20 sqm.				11952.24	
	Cost of 1 sqm.				5432.84	
	Say				5432.85	

26.89 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white color and other side of board laminted with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/ soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)

26.89.1 18 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 18 mm thick WPC board for cupboard shutter of size 2.0x1.08 metre = 2.16 sqm					
	MATERIAL					
5756	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 18 mm thick	sqm	2.16	1800.00	3888.00	
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	2.16	130.00	280.80	
9977	Carriage of board	L.S.	5.00	2.27	11.35	
9999	Sundries	L.S.	20.00	2.27	45.40	
	LABOUR					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				4544.15	W
	Add 1 % Water charges on “W”				45.44	
	TOTAL				4589.59	X
	Add GST on “X” (multiplying factor 0.2127)				976.21	
	TOTAL				5565.80	Y
	Add 15% CPOH on “Y”				834.87	
	TOTAL				6400.67	Z
	Add Cess @ 1% on “Z”				64.01	
	Cost of 2.16 sqm.				6464.68	
	Cost of 1 sqm.				2992.91	
	Say				2992.90	

26.89.2 25 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 25 mm thick WPC board for cupboard shutter of size 2.0x1.08 metre = 2.16 sqm					
	MATERIAL					
5757	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 25 mm thick	sqm	2.16	2430.00	5248.80	
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	2.16	130.00	280.80	
9977	Carriage of board	L.S.	5.00	2.27	11.35	
9999	Sundries	L.S.	20.00	2.27	45.40	
	LABOUR					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				5904.95	W
	Add 1 % Water charges on “W”				59.05	
	TOTAL				5964.00	X
	Add GST on “X” (multiplying factor 0.2127)				1268.54	
	TOTAL				7232.54	Y
	Add 15% CPOH on “Y”				1084.88	
	TOTAL				8317.42	Z

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add Cess @ 1% on "Z"				83.17	
	Cost of 2.16 sqm.				8400.59	
	Cost of 1 sqm.				3889.16	
	Say				3889.15	

26.90 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In- Charge. (Note: stainless steel screws shall be paid separately)

26.90.1 6 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 6 mm thick WPC board for backing of cupboard of size 2.0x1.08 metre = 2.16 sqm					
	MATERIAL					
5758	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 6 mm thick	sqm	2.16	620.00	1339.20	
9977	Carriage of board	L.S.	5.00	2.27	11.35	
	LABOUR					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				1669.15	W
	Add 1 % Water charges on "W"				16.69	
	TOTAL				1685.84	X
	Add GST on "X" (multiplying factor 0.2127)				358.58	
	TOTAL				2044.42	Y
	Add 15% CPOH on "Y"				306.66	
	TOTAL				2351.08	Z
	Add Cess @ 1% on "Z"				23.51	
	Cost of 2.16 sqm.				2374.59	
	Cost of 1 sqm.				1099.35	
	Say				1099.35	

26.90.2 12 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 12 mm thick WPC board for cupboard shutter of size 2.0x1.08 metre = 2.16 sqm					
	MATERIAL					
5759	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 12 mm thick	sqm	2.16	1050.00	2268.00	
9977	Carriage of board	L.S.	5.00	2.27	11.35	
	LABOUR					
0156	Carpenter (average)	day	0.20	857.00	171.40	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0114	Beldar	day	0.20	736.00	147.20	
	TOTAL				2597.95	W
	Add 1 % Water charges on “W”				25.98	
	TOTAL				2623.93	X
	Add GST on “X” (multiplying factor 0.2127)				558.11	
	TOTAL				3182.04	Y
	Add 15% CPOH on “Y”				477.31	
	TOTAL				3659.35	Z
	Add Cess @ 1% on “Z”				36.59	
	Cost of 2.16 sqm.				3695.94	
	Cost of 1 sqm.				1711.08	
	Say				1711.10	

26.91 Providing and fixing factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali, CNC (Computer numeric control) routed of approved design by Engineer-in -charge which are machine cut for duct/shaft covering, partitions and facades comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium corbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives(maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with properties of being termite/borer proof, water/moisture proof and fire retardant and fixing on M.S (mild steel) frame made of 25 x 25 x 1.5 mm square hollow box section including applying a priming coat of approved steel primer, placed at grid made at 1.0 x 1.0 m or as per requirement at site with necessary stainless steel fasteners and SS screws etc., all complete as per direction of Engineer-In- Charge. (Note: M.S (mild steel) framework with priming coat and necessary SS fasteners and SS screws shall be paid separately.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for WPC jali of size 1.80 x 2.40 metre = 4.32 sqm					
	MATERIAL					
5760	Factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali including carriage	sqm	4.32	2320.00	10022.40	
9999	Sundries	L.S.	10.00	2.27	22.70	
	LABOUR					
0156	Carpenter (average)	day	0.20	857.00	171.40	
0114	Beldar	day	0.30	736.00	220.80	
	TOTAL				10437.30	W
	Add 1 % Water charges on “W”				104.37	
	TOTAL				10541.67	X
	Add GST on “X” (multiplying factor 0.2127)				2242.21	
	TOTAL				12783.88	Y
	Add 15% CPOH on “Y”				1917.58	
	TOTAL				14701.46	Z
	Add Cess @ 1% on “Z”				147.01	
	Cost of 4.32 sqm.				14848.47	
	Cost of 1 sqm.				3437.15	
	Say				3437.15	

26.92 Providing and fixing of façade at all heights with extruded hollow Clay / Terracotta ventilated rainscreen tiles of height 250/ 300/ 400mm and length of 595 mm of approved texture,design and pattern having Flexural Strength/ Modulus of Rupture of ≥ 14 N/m² and maximum water absorption of 10% tested as per ISO 10545-4:2004(E) and ISO 10545-3:1995 respectively in true level fixed to a supporting aluminium framework(Alloy 6063 T5/T6) consisting of vertical 'T' (for intermediates)/ 'L'(for ends/ termination)/ Tubular sections (at corners)of size 80x60x2mm/ 40x60x2mm/ 40x40x2mm respectively, spaced at maximum spacing of 600mm c/c matching to the tile vertical grid, and horizontal aluminium 'C'-clamps of size 56x25x2mm thickness of length 150mm at junction of tiles and of length 75mm at wall ends/ corners fixed on top of the vertical sections at spacing of 250/ 300/ 400mm c/c matching to the tile horizontal grid with two numbers of self-drilling / self-tapping SS screws of size 5.5x25 mm with EPDM washers. The vertical 'T'/'L/ Tubular' sections shall be fixed to the wall using HDG (hot-dip-galvanized) steel L-brackets (galvanizing thickness of minimum 80 microns)of size 110x80x6 mm at intermediate vertical aluminium profiles and of size 220x110x12 mm at outer corners and stainless steel grade 304,M10 full threaded anchor fasteners with nylon sleeve 100mm long (for brick work) and M8 expansion anchor fasteners 75mm long for concrete surface, spacing of brackets to be based on a structural/ static calculation. The brackets shall be of length 175mm at junction of two vertical aluminium profiles and of length 100mm at intermediate points of vertical profiles and shall be fixed to the vertical aluminium T / L / Tubular profiles using two numbers self-drilling/ self-tapping SS screws of size 5.5x25mm with EPDM washers. EPDM gaskets to be fixed in between brackets and vertical profiles. The tiles shall be mounted on the 'C' clamps such that the tiles are supported at top and bottom at both ends. The tiles shall be additionally secured to the horizontal 'C' clamps using special SS clips of required size which shall be inserted and pressed into position on the 'C' clamps holding the tiles and the cut-tiles shall be glued at points to the horizontal 'C' clamps by using MS Polymer sealant adhesive. The vertical joint open groove between two adjacent tiles shall be 5mm. The tiles and system shall be designed to resist wind load as per IS 875 (Part 3) according to different zones. The tiles shall be installed using the ventilated rain screen principle with provision for natural ventilation of the space between the façade tiles and the structural wall. The work shall be carried out as per specification, drawing and as per direction of the Engineer-in-Charge. Note : Scaffolding wherever required to be paid separately.

26.92.1 With 16mm thickness (+/- 10%) terracotta tiles of grey colour

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10.80 sqm (3.60 x 3.0 metre) MATERIAL Façade area = 10.80 sqm + Wastage @ 5% = 0.54 sqm. Total = 11.34 sqm					
5762	16mm thick extruded terracotta tiles of grey colour of size 300 x 595mm	sqm	11.340	2265.00	25685.10	
7306	Aluminium Tube / T Profile 1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/ mtr. = 4.92 kg 2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg 3). At intermediate T section 80x60x2mm = 4 nos. 3 mtr. long = 12.00 mtr. @ 0.75 kg/mtr. = 9.00 kg (Total = 4.92+3.18+9.00 = 17.10 kg.	kg	17.100	198.00	3385.80	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7306	Aluminium “C” Clamps of size 80x25x2 mm - 150mm (i) 150mm longh = 4x11 no. = 44.00 nos. x 0.15 = 6.6 mtr. @ 0.628 kg/mtr. = 4.14 kg (ii) 75mm long 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.628 kg/mtr.= 3.10 kg. Total=4.14 + 3.10 = 7.24 kg	kg	7.240	198.00	1433.52	
7216	Self-Drilling/Self-Tapping Screws M-6 25mm long (a) Bracket to vertical profile - 32 Nos. (brackets) x2.00 nos. = 64.00 Nos b) For fixing of C” clamps to vertical profile (44+66=110)x2=220 nos. Total = 220 Nos + 64 Nos = 284.00 Nos	each	284.00	4.00	1136.00	
1007	HDG Mild Steel Brackets (Minimum 18 microns Galvanizing) a) Wall bracket = 110x80x6 mm thick (i) 100 mm long = 12x0.10= 1.20 Mtr @ 8.65 kg/mtr. = 10.38 kg (ii) 175mm long = 12x0.175=2.10 mtr. @ 8.65 kg/mtr. = 18.17 kg Total = 10.38 + 18.17 = 28.55 kg b) Corner Bracket of size 200 x 100 x 12mm thick (a) 100mm long - 4 Nos x0.10x = 0.40 mtr. @ 28.90 Kgs = 11.56 Kg (b) 175mm long 4x0.175= 0.70 mtr. @ 28.90 kg/mtr. = 20.23 kg Total = 11.56 + 20.23 = 31.79 kg. Total quantity of wall and corner bracket = 60.34 kgs = 0.603 quintal	quintal	0.603	5965.00	3596.90	
7217	SS anchor Fasteners (RCC / Brick) – M-8x75mm/M-10x100mm 8x4 nos. = 32 Nos Bracket	each	32.0000	76.00	2432.00	
7390	EPDM Gaskets of size 100x80 mm 32x0.10=3.20 mtr.	metre	3.200	16.00	51.20	
7218	MS Polymer Sealant Adhesive Area = 10.8 Sqm + wastage @ 0.54 sqm. = 11.34 Sqm Adhesive required = Approx. 150ml or 0.15 Ltr.	litre	0.150	1320.00	198.00	
	SS Clips					
7219	SS Double Clip at intermediate 7x10=70.00 Nos. x 2 clips = 140.00 clips	each	140.000	8.00	1120.00	
7220	SS Single clip at top and bottom 7x4= 28 Nos. clips	each	28.000	5.00	140.00	
	LABOUR					
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/terracotta ventillated rain screen tiles	sqm	10.800	736.00	7948.80	
9999	Carriage of materials	L.S.	125.000	2.27	283.75	
9999	T&P and materials Lead & Lift	L.S.	250.000	2.27	567.50	
	TOTAL				47978.57	W
	Add 1 % Water charges on “W”				479.79	
	TOTAL				48458.36	X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add GST on "X" (multiplying factor 0.2127)				10307.09	
	TOTAL				58765.45	Y
	Add 15% CPOH on "Y"				8814.82	
	TOTAL				67580.27	Z
	Add Cess @ 1% on "Z"				675.80	
	Cost of 10.80 sqm.				68256.07	
	Cost of 1 sqm				6320.01	
	Say				6320.00	

26.92.2 With 16mm thickness (+/- 10%) terracotta tiles of other than grey colors

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10.80 sqm (3.60 x 3.0 metre) MATERIAL Façade area = 10.80 sqm + Wastage @ 5% = 0.54sqm. Total = 11.34 sqm					
5763	16mm thick extruded terracotta tiles of other than grey colour of size 300 x 595mm	sqm	11.340	2045.00	23190.30	
7306	Aluminium Tube / T Profile 1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/ mtr. = 4.92 kg 2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg 3). At intermediate T section 80x60x2mm = 4 nos. 3 mtr. long = 12.00 mtr. @ 0.75 kg/ mtr. = 9.00 kg (Total = 4.92+3.18+9.00 = 17.10 kg.	kg	17.100	198.00	3385.80	
7306	Aluminium "C" Clamps of size 56x25x2mm (i) 150mm long = 4x11 no. = 44.00 nos. x 0.15 = 6.6 mtr. @ 0.628 kg/mtr. = 4.14 kg (ii) 75mm long 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.628 kg/mtr.= 3.10 kg. Total=4.14 + 3.10 = 7.24 kg	kg	7.240	198.00	1433.52	
7216	Self-Drilling/Self-Tapping Screws M-6 25mm long (a) Bracket to vertical profile - 32 Nos.x2.00 nos. = 64.00 Nos b) For fixing of brackets to "C" clamps (44+66=110)x2=220 nos. Total = 220 Nos + 64 Nos = 284.00 Nos	each	284.000	4.00	1136.00	
1007	HDG Mild Steel Brackets (Minimum 18 microns Galvanizing) a) Wall bracket - Average 110 x 80 = 6mm thick (i) 100 mm long = 12x0.10= 1.20 Mtr @ 8.65 kg/mtr. = 10.38 kg (ii) 175mm long = 12x0.175=2.10 mtr. @ 8.65 kg/mtr. = 18.17 kg Total = 10.38 + 18.17 = 28.55 kg	quintal	0.603	5965.00	3596.90	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	b) Corner Bracket of size 200 x 100 x 12mm thick (a) 100mm long - 4 Nos x0.10x = 0.40 mtr. @ 28.90 Kgs = 11.56 Kg (b) 175mm long 4x0.175= 0.70 mtr. @ 28.90 kg/mtr. = 20.23 kg Total = 11.56 + 20.23 = 31.79 kg. Total quantity of wall and corner bracket = 60.34 kgs = 0.603 quintal					
7217	SS anchor Fasteners (RCC / Brick) – M-8x75 mm/M-10x100mm 8x4 nos. = 32 Nos Bracket	each	32.000	76.00	2432.00	
7390	EPDM Gaskets of size 100x80 mm 32x0.10=3.20 mtr.	metre	3.200	16.00	51.20	
7218	MS Polymer Sealant Adhesive Area - 10.8 Sqm + wastage @ 0.54 sqm. Total =11.34 Sqm Adhesive required = Approx. 150ml or 0.15 ltr.	litre	0.150	1320.00	198.00	
	SS Clips					
7219	SS Double Clip at intermediate 7x10=70.00 Nos. x 2 clips = 140.00 clips	each	140.000	8.00	1120.00	
7220	SS Single clip at Top and Bottom 7x4= 28 Nos. clips	each	28.000	5.00	140.00	
	LABOUR					
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/terracotta ventillated rain screen tiles	sqm	10.800	736.00	7948.80	
9999	Carriage of materials	L.S.	125.000	2.27	283.75	
9999	T&P and materials Lead & Lift	L.S.	250.000	2.27	567.50	
	TOTAL				45483.77	W
	Add 1 % Water charges on “W”				454.84	
	TOTAL				45938.61	X
	Add GST on “X” (multiplying factor 0.2127)				9771.14	
	TOTAL				55709.75	Y
	Add 15% CPOH on “Y”				8356.46	
	TOTAL				64066.21	Z
	Add Cess @ 1% on “Z”				640.66	
	Cost of 10.80 sqm.				64706.87	
	Cost of 1 sqm				5991.38	
	Say				5991.40	

26.93 **Providing and fixing of façade at all heights with extruded hollow Clay / Terracotta ventilated rainscreen tiles of height 259/ 309/ 409mm and lengthof 1190 mm of approved texture,design and pattern having Flexural Strength/ Modulus of Rupture of ≥ 14 N/m² and maximum water absorption of 10% tested as per ISO 10545-4:2004(E) and ISO 10545-3:1995 respectively in true level fixed to a supporting aluminium framework (Alloy 6063 T5/T6) consisting of vertical 'T' (for intermediates)/ 'L' (for ends/ termination)/ Tubular sections (at corners)of size 80x60x2mm/ 40x60x2mm/ 40x40x2mm respectively, spaced at maximum spacing of 1200mm c/c matching to the tile vertical grid, and horizontal aluminium 'C'-clamps of size 56x34x2 mm thickness of length 150mm at junction of tiles and of length 75mm at wall ends/ corners fixed on top of the vertical sections at spacing of 250/ 300/ 400mm c/c matching to the tile horizontal grid with two numbers of self-drilling / self-tapping SS screws of size 5.5x25 mm with EPDM washers.**

The vertical 'T'/'L/ Tubular' sections shall be fixed to the wall using HDG (hot-dip-galvanized) steel L-brackets (galvanizing thickness of minimum 80 microns) of size 110x80x6 mm at intermediate vertical aluminium profiles and of size 220x110x12 mmat outer corners and stainless steel grade 304,M10 full threaded anchor fasteners with nylon sleeve 100mm long (for brick work) and M8 expansion anchor fasteners 75mm long for concrete surface, spacing of brackets to be based on a structural/ static calculation. The brackets shall be of length 175mm at junction of two vertical aluminium profiles and of length 100mm at intermediate points of vertical profiles and shall be fixed to the vertical aluminium T / L / Tubular profiles using two numbers self-drilling/ self-tapping SS screws of size 5.5x25 mm with EPDM washers.

EPDM gaskets to be fixed in between brackets and vertical profiles. The tiles shall be mounted on the 'C' clamps such that the tiles are supported at top and bottom at both ends. The tiles shall be mounted on the C-clamps with EPDM profiles in between such that the tiles are supported at top and bottom at both ends. The vertical joint open groove between two adjacent tiles shall be 10mm. The tiles and system shall be designed to resist wind load as per IS 875 (Part 3) according to different zones. The tiles shall be installed using the ventilated rain screen principle with provision for natural ventilation of the space between the façade tiles and the structural wall. The work shall be carried out as per specification, drawing and as per direction of the Engineer-in-Charge.

Note : Scaffolding wherever required to be paid separately.

26.93.1 **With 24mm thickness (+/-10%) terracota tiles of grey colour**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 12.60 sqm((0.3+3.60+0.3) x 3m=12.60 sqm) Façade area =12.60+ 5% wastage = 13.23sqm					
5764	24mm thick extruted terracota tiles of grey colour of size 309x1190mm	sqm	13.230	2580.00	34133.40	
7306	Aluminium Tube/ T profile 1). At corners tubular section 40x40x2mm 2 nos. 3m long= 6.0m @ 0.82kg/m =4.92kg 2). At ends/ termination angle 40x60x2mm 2nos 3m long = 6.0m @0.53kg/m =3.18kg 3). At intermediate T section 80x60x2mm = 2 nos 3m long = 6.0m @ 0.75kg/m =4.5kg Total = 12.60kg	kg	12.600	198.00	2494.80	
7306	Aluminium C clamps of size 56x34x2.0mm i). 150mm length = 2x11=22nos x0.15=3.3m @ .615kg/m =2.03kg ii) 75mm long 6x11=66nos x 0.075 - 4.95m @ 0.615kg/m = 3.04kg Total =5.07kg	kg	5.070	198.00	1003.86	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7221	self-drilling / self-tapping SS screws 5.5x 25mm long a) Bracket to verticle profile = 30 bracketsx2 nos =60 nos b) For fixing of C clamps to verticle profile (22+66 =88)x2 =176 nos Total = 236	each	236.000	4.00	944.00	
1007	HDG Mild steel brackets (Minimum 18 microns Galvanizing) a) wall bracket = 110x80x6mm thick i) 100mm long = 10x0.10=1.00m @ 8.65kg/m = 8.65kg ii)175mm long = 10x0.175=1.75m @ 8.65kg/m = 15.13kg b) Corner bracket of size 200x100x12mm thick i) 100mm long- 5x0.10=0.50m @ 28.90kg/m = 14.45kg ii) 175mm long 5x0.175=0.875m@28.90kg/m =25.28kg Total quantity of wall and corner bracket = 63.58kgs =0.636qtl	quintal	0.636	5965.00	3793.74	
7222	SS fasteners (RCC/ brick)-M-8x75mm/ M10x100mm 6x5nos = 30 brackets	each	30.000	76.00	2280.00	
7390	EPDM Gaskets of size 100x80mm 30x0.10=3m 75mm long =6x11x.075=4.95m total = 8.25	metre	3.000	16.00	48.00	
7218	MS polymer sealant adhesive Area = 12.6sqm+ 5% wastage = 13.23sqm Adhesive required = Approx 175mlor 0.175ltr	litre	0.175	1320.00	231.00	
7390	EPDM Profile for tiles mounting on C clamp 150mm long 2x11=22nosx0.15 =3.3m 75mm long =6x11x.075=4.95m total = 8.25	metre	8.250	16.00	132.00	
	Labour					
0166	Installation charges	sqm	12.600	736.00	9273.60	
9999	Carriage of materials	L.S.	125.000	2.27	283.75	
9999	T & P and materials lead & lift	L.S.	250.000	2.27	567.50	
	TOTAL				55185.65	W
	Add 1 % Water charges on “W”				551.86	
	TOTAL				55737.51	X
	Add GST on “X” (multiplying factor 0.2127)				11855.37	
	TOTAL				67592.88	Y
	Add 15% CPOH on “Y”				10138.93	
	TOTAL				77731.81	Z
	Add Cess @ 1% on “Z”				777.32	
	Cost of 12.60 sqm.				78509.13	
	Cost of 1 sqm				6230.88	
	Say				6230.90	

26.93.2 With 24mm thickness (+/- 10%) terracotta tiles of other than grey colors

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 12.60 sqm (4.2 (0.3+3.6+0.3) x 3.0 metre) MATERIAL Façade area = 12.60 sqm + Wastage @ 5% = 0.63 sqm. Total = 13.23 sqm					
5765	24mm thick extruded terracotta tiles of grey color of size 309x1190 mm and length 1190mm	sqm	13.230	2320.00	30693.60	
7306	Aluminium Tube / T Profile 1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/mtr. = 4.92 kg 2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg 3). At intermediate T section 80x60x2mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.75 kg/mtr. = 4.50 kg (Total = 4.92+3.18+4.50 = 12.60 kg)	kg	12.600	198.00	2494.80	
7306	Aluminium C Clamps of size 56x34x2.0 mm (i) 150mm long - 2x11 no. = 22.00 nos. x 0.15 = 3.3 mtr. @ 0.615 kg/mtr. = 2.03 kg (ii) 75mm long - 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.615 kg/mtr.= 3.04 kg Total=2.03 + 3.04 = 5.07 kg	kg	5.070	198.00	1003.86	
7221	Self-Drilling/Self-Tapping Screws 5.5x25 mm long (a) Bracket to vertical profile - 30 Nos.x2.00 nos. = 60.00 Nos b) For fixing of brackets to “C” clamps (22+66=88)x2=176 nos. Total = 176 Nos + 60 = 236.00 Nos	each	236.000	4.00	944.00	
1007	HDG Mild Steel Brackets (Minimum 80 microns Galvanizing) a) Wall bracket - 110 x 80x6mm thick (i) 100 mm long = 10x0.10= 1.00 Mtr @ 8.65 kg/mtr. = 8.65 kg (ii) 175mm long = 10x0.175=1.75 mtr. @ 8.65 kg/mtr. = 15.13 kg Total = 8.65 + 15.13 = 23.85 kg b) Corner Bracket of size 220 x 110 x 12mm thick (a) 100mm long - 5 Nos x0.10 = 0.50 mtr. @ 28.90 Kg/mtr. = 14.45 Kg (b) 175mm long - 5x0.175= 0.875 mtr. @ 28.90 kg/mtr. = 25.28 kg Total = 14.45 + 25.28 = 39.73 kg Gross total = 23.85+39.73 = 63.58 kg = 0.636 quintal	quintal	0.636	5965.00	3793.74	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7222	SS Anchor Fasteners (RCC / Brick) – M-8x100 mm 6x5 nos. = 30 Nos Bracket	each	30.000	76.00	2280.00	
7390	EPDM Gaskets of size 100x80 mm 30x0.10=3.00 mtr.	metre	3.000	16.00	48.00	
7218	MS Polymer Sealant Adhesive Area = 12.60 Sqm + 5% = 13.23 Sqm Adhesive required = 175 ml. or 0.175 ltr.	litre	0.175	1320.00	231.00	
7390	EPDM gasket for tiles mounting on C - clamps (i) 150mm long - 2x11 no. = 22.00 nos. x 0.15 =3.3 mtr. (ii) 75mm long - 6x11=66.00 nos. x 0.075 = 4.95 mtr. Total = 3.3 + 4.95 = 8.25 mtr.	metre	8.250	16.00	132.00	
	LABOUR					
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/terracotta ventillated rain screen tiles	sqm	12.600	736.00	9273.60	
9999	Carriage of materials	L.S.	125.000	2.27	283.75	
9999	T&P and materials Lead & Lift	L.S.	250.000	2.27	567.50	
	TOTAL				51745.85	W
	Add 1 % Water charges on “W”				517.46	
	TOTAL				52263.31	X
	Add GST on “X” (multiplying factor 0.2127)				11116.41	
	TOTAL				63379.72	Y
	Add 15% CPOH on “Y”				9506.96	
	TOTAL				72886.68	Z
	Add Cess @ 1% on “Z”				728.87	
	Cost of 12.60 sqm.				73615.55	
	Cost of 1 sqm				5842.50	
	Say				5842.50	

26.94 **Designing, shop fabricating, supplying , erecting, stripping and shifting of customized Modular Tunnel Formwork system for cast-in-situ monolithic RCC structures, using precision steel cubical formworks are molds with minimum 3mm thick hot rolled plain painted/hot dip galvanized M.S. sheets for panel in contact area with necessary framing and allied accessories as per CPWD specifications including transporting, storage, assembly, hoisting and placing in position for supporting and holding the formwork in place till initial setting of the concrete then stripping the formwork, propping to support horizontal surface cleaning and oiling etc. for shifting to the next cycle, inclusive of all labour, machines and T&P requirements taking all safety measures etc. as per design and cycle programme all complete as per directions of the Engineer-in-Charge. Design of Tunnel Formwork system shall be provided by concerned service provider/vendor and the rate is inclusive of all the elements and all operations for all heights.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 530 sqm (Total contact area) Horizontal (plan/floor area) = 124 sqm Vertical (Walls area)= 406 sqm Accessories include vertical support, slant support, tunnel lifting equipment, wallstopper, slab stopper, starter caster, doors/ window box-out, tie rod, safety platforms brackets and anchors, inner safety & working platform, outer safety & working platform and 150 Repetition					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIALS: Horizontal Panels 124 sqm @ 90 kg/ sqm = 11160 kg (B) Vertical Panels 406 sqm @ 135 kg/ sqm = 54810 kg (C) . Additional steel for accessories @ 20% of 65970 kg(B+C) = 13194 kg (D) Add 5% wastage on 79164 kg (B+C+D) = 3958 kg. Total = 83122 kg Qty. for using once=83122/150=554.15 kg					
5784	Customized Modular Tunnel Formwork Panel made of minimum 3mm thick hot rolled plain painted/hot dip galvanized M.S. sheets with Accessories etc.	kg	554.15	89.00	49319.35	E
	Painting with synthetic enamel paint over priming coat with red oxide primer on the opposite side of contact area and accessories of tunnel foam work system = 875 sqm {(530 sqm + 65% of 530 sqm for framing & accessories) = 530 + 345 = 875 sqm say 875 sqm)} Rate as per item 13.50.3 + 13.61.1, Qty. for using once=875/ 150= 5.83 sqm					
13.50.3	Priming coat (Rate as item no.13.50.3 of SH: Finishing)	sqm	5.83	67.40	392.94	A
13.61.1	Painting with synthetic enamel paint (Rate as item no.13.61.1 of SH: Finishing)	sqm	5.83	155.90	908.90	A
5785	Designing, Fabrication and transportation cost of tunnel form work (on 79164 kg excluding wastage) Qty. for using once=79164/150=527.76 kg	kg	527.76	58.00	30610.08	F
	Add maintenance charges @ 5% on net cost of formwork and assuming fabrication cost being 60% of F i.e.(E+ 60% of F)				3384.27	
	Add maintenance charges @ 5% on painting cost (A)				65.09	G
	Adjustable telescopic Props 3 m for supporting slab area after removal of tunnel form (7x36=252) = 252 Nos Qty. for using once=252/150=1.68 nos					
7343	Telescopic adjustabe props 3 m (2.02-3.75 m)	each	1.68	1051.00	1765.68	H
	Deduct salvage value at the rate of 30% of bare cost of material(E+H)				-15325.51	
	Labour :					
0160	Supervisor/technician	day	1.00	973.00	973.00	
0116	Skilled fitter	day	4.00	897.00	3588.00	
0114	Helpers/beldar	day	16.00	736.00	11776.00	
0044	Hire charges for crane (upto 40 tonne capacity)	day	1.00	8950.00	8950.00	
5773	Shuttering Oil (@ 20 sqm per litre for 530 sqm =26.50 litre)	litre	26.50	95.00	2517.50	
Sub A/R-1	Add for GP2 compound for tie rod holes found out of conical concrete pegs @ 1 hole/sqm of wall area i.e. 406.5 / 2 =203.25 Say 204	each	204.00	9.00	1836.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	TOTAL				100761.30	W
	Add 1 % Water charges on "W-A-G"				993.94	
	TOTAL				101755.24	X
	Add GST on "X-A-G" (multiplying factor 0.2127)				21352.59	
	TOTAL				123107.83	Y
	Add 15% CPOH on "Y-A-G"				18261.14	
	TOTAL				141368.97	Z
	Add Cess @ 1% on "Z-A-G"				1400.02	
	Total cost for 530 sqm				142768.99	
	Cost for 1.00 Sqm				269.38	
	Say				269.40	

Sub A/R-1 **Filling and finishing the holes of varies sizes and shades (left by keys/pins of Tunnel formwork shuttering while de-shuttering) with GP-2 cementitious polymer compound mixed with water in ratio prescribed by manufacturer to form consistent workable enough for pasting over cement concrete cones and pushing it in the holes upto full depth of wall using appropriate tools and finishing smooth all complete as per directions of the Engineer-in-charge**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 110 holes					
	GP 2 Compound applied over the cement concrete cones 8 kg including wastage					
	Materials					
5774	GP 2 cementitious compound	kg	8.00	22.00	176.00	
	Labour					
0124	Mason 2nd class	each	0.45	816.00	367.20	
0114	Beldar	each	0.45	736.00	331.20	
9999	Sundries for T&P and scaffolding etc.	L.S.	50.00	2.27	113.50	
	Total cost of 110 holes				987.90	
	Cost per holes				8.98	
	Say				9.00	

26.95 **Providing and installation of factory made Structural Stay in place form work system with double faced panels for walls, single faced panels for roof/ floor slabs, L-shaped single faced panels for corners, with necessary scaffolding, struts, bracing etc. Complete as per CPWD specification and directions of the Engineer in Charge. Design of walls and other members to be provided by the supplier & shall be duly vetted by any engineering institute of National repute such as IITs, NITs etc. and nothing extra shall be payable on this account (Additional steel reinforcement/dowels, design mix concrete of specified grade, electrical and plumbing conduits insert for services and plastering on either side of walls shall be paid for separately).**

Note:- This item shall be adopted for building upto G+3 Storeys only excluding seismic zone V.

26.95.1 **Double panel of required thickness (110mm & above) with minimum weight of panel as 11.05 kg per sqm for walls with corresponding corners and jambs strips.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 450 sqm					
	MATERIALS					
8991	Standard double panel of design width, height and thickness	sqm	440.00	2071.00	911240.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8992	Corner pieces L-Shape	sqm	10.00	813.00	8130.00	
8993	Flat strips for soffits (L.S.)	sqm	20.00	832.00	16640.00	
9999	Transportation of panel	L.S.	2122.64	2.27	4818.39	
	Assuming Strengthening of panels material (structs,bracis and propes) will become un-serviceable after use of 40 times, adding for maintenance @ 10% of cost, taking salvage value after full use of material @ 30% cost.					
4009	Mile Steel tubes hot finished welded type	kg	147.45	72.00	10616.40	P
	For diagonal Bracing on outer face 60mm dia M.S Pipe (5 to 6 m long) = 600 metre @ 5.54 kg/m = 3324 kg					
	50mm dia, M.S pipes for shorter length out-er bracing and internal bracing. = 650 metre @ 3.96 kg/m = 2574 kg					
	Total Weight = 5898 kg					
	Quantity for using Once = 5898 / 40 = 147.45 kg					
	Add Maintenance charges @ 10% of P				1061.64	
	Deduct salvage value @ 30% of bare cost of material on P				-3184.92	
8724	12 mm thick marine plywood	sqm	12.00	785.00	9420.00	
8994	G.I binding wire	Kg	25.00	66.00	1650.00	
1219	Nails 75 mm	Kg	15.00	58.00	870.00	
	LABOUR					
0116	Fitter (Grade-I)	Day	20.00	897.00	17940.00	
0114	Beldar	Day	40.00	736.00	29440.00	
9999	Sundries	L.S	54.24	2.27	123.12	
	TOTAL				1008764.63	
	Add 1 % Water charges on “W”				10087.65	
	TOTAL				1018852.28	w
	Add GST on “X” (multiplying factor 0.2127)				216709.88	
	TOTAL				1235562.16	x
	Add 15% CPOH on “Y”				185334.32	
	TOTAL				1420896.48	y
	Add Labour Cess @ 1% on “Z”				14208.96	
	Cost for 450 sqm				1435105.44	z
	Cost of 1 sqm				3189.12	
	Say				3189.10	

26.95.2 Single panel for slabs with minimum weight of panel as 4.05 kg/sqm for walls with corresponding corners and jambs strips.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 15 sqm					
	MATERIALS					
8995	Single panel (Weight not less than 4.05 kg/ sqm)	Sqm	15.00	832.00	12480.00	
9999	Transportation of panel	L.S.	35.30	2.27	80.13	
8724	12 mm thick marine plywood	Sqm	3.25	785.00	2551.25	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Assuming Strengthening of panels material (structs,bracis and propes) will become un-serviceable after use of 40 times, adding for maintenance @ 10% of cost, taking salvage value after full use of material @ 30% cost.					
7343	Adjustable telescopic prop 3 m (2.02 - 3.75 m) Telescopping to support horizantel single panel stay in place form work for slabs 3 m long adjustable telescopic propes = 36 Nos. Quantity for using once = 36 /40 = 0.90 No.	each	0.90	1051.00	945.90	P
	Add Maintenance charges @ 10% of P				94.59	
	Deduct salvage value @ 30% of bare cost of material on P				-283.77	
8994	G.I binding wire	Kg	1.50	66.00	99.00	
1219	Nails 75 mm	Kg	1.50	58.00	87.00	
	LABOUR					
0116	Fitter (Grade-I)	Day	1.20	897.00	1076.40	
0114	Beldar	Day	1.20	736.00	883.20	
9999	Sundries	L.S	23.59	2.27	53.55	
	TOTAL				18067.25	w
	Add 1 % Water charges on “W”				180.67	
	TOTAL				18247.92	X
	Add GST on “X” (multiplying factor 0.2127)				3881.33	
	TOTAL				22129.25	Y
	Add 15% CPOH on “Y”				3319.39	
	TOTAL				25448.64	Z
	Add Labour Cess @ 1% on “Z”				254.49	
	Cost of 15 sqm				25703.13	
	Cost of 1 sqm				1713.54	
	Say				1713.55	

26.96 Providing and placing "Stay in Place PVC Wall formwork" made up of extruded Unplasticised Poly Vinyl Chloride (uPVC) consisting of Main panel, 3 way Connector, Starter Channel, Joint Panel, Connection Panels, Door/Window frame/trim panels etc. all complete as per manufacturer design and for all heights as per direction of Engineer-in-charge. (Note: Suitable for in fill walls with appropriate Structural system).

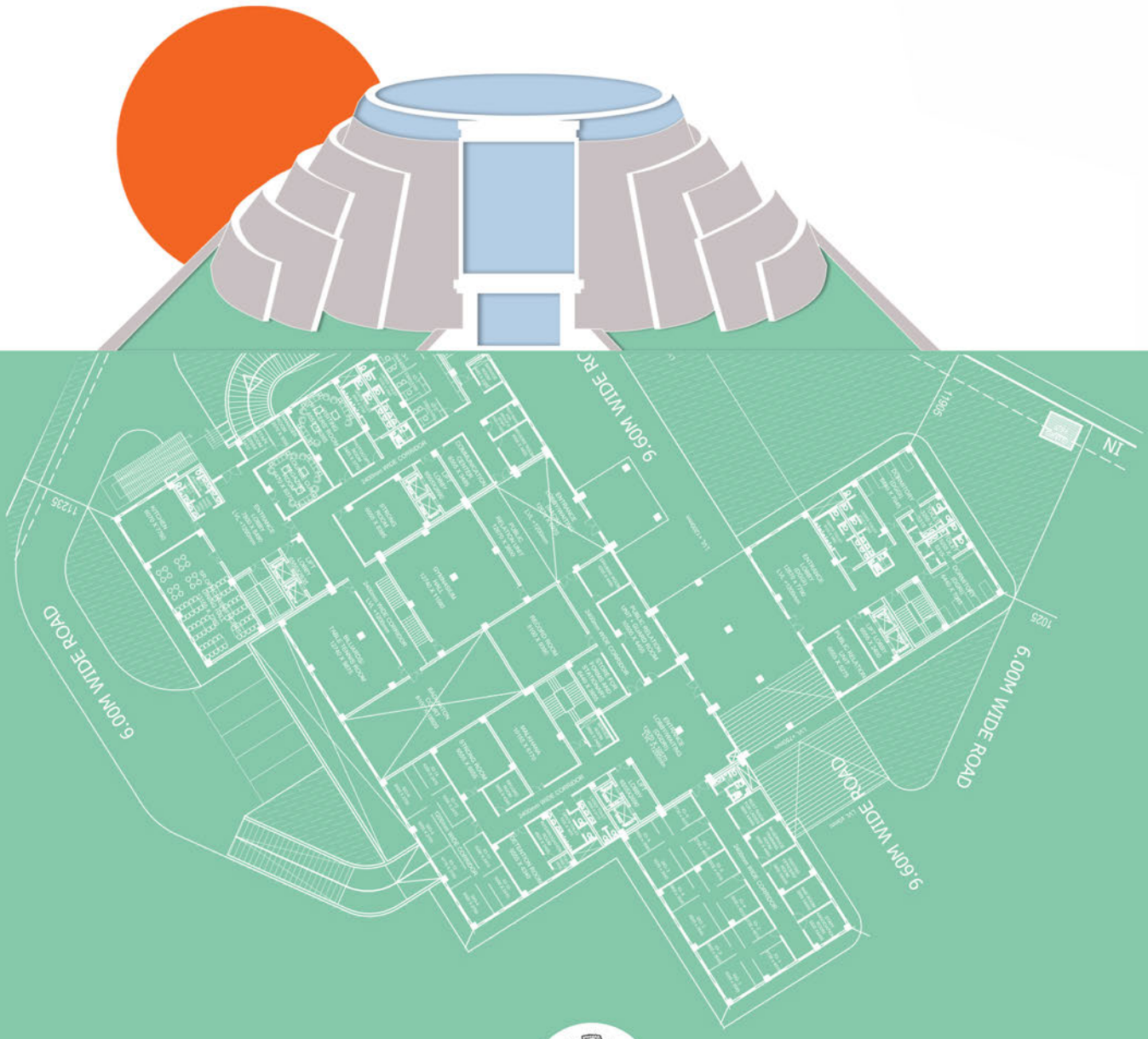
26.96.1 125 mm wide Stay in Place PVC Wallform made of minimum 2.50 mm thick sections and minimum weight 21.97 kg /sqm of formwork.

Code	Description	Unit	Qty	Rate ₹	Amount ₹	
	Detail of cost for 20 sqm surface area					
	MATERIAL					
8996	125 mm wide Stay in Place Wallform 2.50 mm thick of extruded Unplasticised Poly Vinyl Chloride (uPVC). Cost of Raw Materials for 20/2 = 10 sqm of 125 mm Wallforms @21.97 kg/sqm 219.70 kg + 5% wastage (10.98 kg) = 230.68 kg	kg	230.68	160.00	36908.80	
9999	Transportation Charges	L.S.	610.38	2.27	1385.56	
	Labour for Installation					
0123	Mason 1st Class	day	1.00	897.00	897.00	
0115	Beldar	day	2.50	736.00	1840.00	
9999	Sundries	L.S.	50.00	2.27	113.50	
	TOTAL				41144.86	W
	Add 1% Water charges on "W"				411.45	
	TOTAL				41556.31	X
	Add GST on "X" (multiplying factor 0.2127)				8839.03	
	TOTAL				50395.34	Y
	Add 15% CPOH on "Y"				7559.30	
	TOTAL				57954.64	Z
	Add Cess @ 1% on "Z"				579.55	
	Cost of 20 sqm				58534.19	
	Cost for 1 sqm				2926.71	
	Say				2926.70	

26.96.2 165 mm wide Stay in Place PVC Wallform made of minimum 2.50 mm thick sections and minimum weight 29.00 kg /sqm of formwork.

Code	Description	Unit	Qty	Rate ₹	Amount ₹	
	Detail of cost for 20 sqm (165 mm wide Stay in Place (PVC) wall forms)					
	MATERIAL					
8996	165 mm wide Stay in Place Wallform 2.50 mm thick of extruded Unplasticised Poly Vinyl Chloride (uPVC). Cost of Raw Materials for 20/2 = 10 sqm of 165 mm Wallforms @29.00 kg/sqm 290.00 kg + 5% wastage (14.50 kg) = 304.50 kg	kg	304.50	160.00	48720.00	
9999	Transportation Charges	L.S.	684.90	2.27	1554.72	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Labour for Installation					
0123	Mason 1st Class	day	1.00	897.00	897.00	
0115	Beldar	day	3.00	736.00	2208.00	
9999	Sundries	L.S.	50.00	2.27	113.50	
	TOTAL				53493.22	W
	Add 1% Water charges on “W”				534.93	
	TOTAL				54028.15	X
	Add GST on “X” (multiplying factor 0.2127)				11491.79	
	TOTAL				65519.94	Y
	Add 15% CPOH on “Y”				9827.99	
	TOTAL				75347.93	Z
	Add Cess @ 1% on “Z”				753.48	
	Cost of 20 sqm				76101.41	
	Cost for 1 sqm				3805.07	
	Say				3805.05	



Government of India
Ministry of Housing & Urban Affairs
Central Public Works Department
www.cpwd.gov.in

A Government of India Publication
Published by
Director General, CPWD, Nirman Bhawan, Delhi-110011