

MUMBAI PORT TRUST
Civil Engineering Department

1. This Schedule of Rates (SOR) is effective from 01.05.2011.
2. The unit rates in this schedule of rates have been worked out on the basis of N.B.O. Rate Analysis and unit rates of materials (Annexure I) and labour (Annexure II) prevailing in the market during the period from September 2009 to November 2010.

Items for which N.B.O. Rate Analysis was not available, either an in-house Rate Analysis was used or current unit rates were ascertained by inquiries with specialist contractors.
3. The rates worked out in this Schedule of Rates include Value Added Tax (VAT) and an allowance is made for
 - (a) Contractor's profit and overheads (financing costs, site establishment costs, proportionate cost of Head Office Establishment, etc.) at 10% of the prime costs of the labour and material component.
 - (b) For items requiring use of water, water charges @1% of material cost have been considered in the rate analysis.
4. Extra water and sewerage charges payable to MCGM are to be borne by MbPT. An explicit provision @8% of the cost of work should be made separately for this in the estimate, wherever such charges are payable to the Municipal Corporation.
5. The Schedule of Rates is applicable to normal and bulk Permanent Original Civil Engineering Works at sites with reasonable vehicular access and with reasonable working areas in the city of Mumbai.
6. The Schedule should be used for bulk original work at Jawahar Dweep (Butcher Island) and Kennery Island by increasing these rates by 50% as usual.
7. This Schedule of Rates is NOT APPLICABLE to repair works, where the quantum of work in an individual item is less than full days work for the normal complement of gang used for performing the item of work. Such works not only involve loss of productivity but also require higher overheads, on account of larger mobilization and demobilization per unit of work and the incidence of these varies between wide limits. Judgement should be used in framing estimate for such repair works.

8. The Schedule of Rates is not applicable to marine project works or to works – major or minor at offshore sites.
9. The market survey for the unit rates for material and labour and computations for arriving at final rates for various items were done by the following Engineers.
 - (i) Mr.B. Dinakar - Superintending Engineer - Team Leader
 - (ii) Mr.Sateesh S. Pillai - Asst. Executive Engineer - Team Member
 - (iii) Mr.V.S. Sawantdesai - Asst. Executive Engineer - Team Member
 - (iv) Mr.Nitin B. Parab - Junior Engineer - Member
 - (v) Mr.Vipul M.Mehta - Junior Engineer - Member
 - (vi) Mr.Pramod R.Gujrathi - Junior Engineer - Member
 - (vii) Mr.Jaydeep K.Kisave - Junior Engineer - Member

The input and computations have been randomly checked by Shri.S.D. Aserkar, Dy.CE(G) and Shri.M.V. Patwardhan, Addl.CE and finally approved by the undersigned.

My greatfull thanks to all the above officers for the excellent work done by them.

10. This Schedule of Rates is duly concurred in audit vide F.A. & C.A.O.'s office No.FA/AWC-T-34(58)/SOR 2010/163 dated 28.04.2011.
11. The rate analysis sheets of this SOR (SOR 2011) are kept in the custody of Executive Engineer, NPG for reference/ suggestions. Although due care has been taken in checking and re-checking the input and computations, there could be some errors. Any Officer who detects such errors may kindly bring them with necessary supporting details to the notice of Shri.S.D. Aserkar, Dy.CE(G), who will verify and issue correction slips.
12. Unit rates of certain materials are likely to change rather suddenly. Anybody who has information on such increases may kindly bring it to the notice of Shri.S.D. Aserkar, Dy.CE(G), who may after verification will issue correction slips.

Chief Engineer

Mumbai Port Trust
SCHEDULE OF RATES 2011

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I - Soil Investigation

Sr. No.	Item Description	Unit	Rate in ₹
1	Provide shell & auger rig complete with all accessories at site including returning the same on completion as directed.	Rig	15,000.00
2	Providing rotary core drilling equipments, compressors, etc. complete at site and returning the same on completion as directed.	Rig	15,000.00
3	Erect, dismantle and move boring rig with drilling equipment at each bore-hole complete as directed.	Each	500.00
4	Bore with shell and auger or by percussion method in all soils other than rock to a depth below ground level complete as directed.		
	(i) Not exceeding 5 Mtrs.	Mtr.	550.00
	(ii) Between 5 Mtrs. and 10 Mtrs.	Mtr.	650.00
	(iii) Between 10 Mtrs. and 15 Mtrs.	Mtr.	750.00
	(iv) Between 15 Mtrs. and 20 Mtrs.	Mtr.	850.00
	(v) Between 20 Mtrs. and 25 Mtrs.	Mtr.	900.00
	(vi) Between 25 Mtrs. and 30 Mtrs.	Mtr.	1,000.00
5	Rotary core drilling in Rock & take continuous rock core to a depth below ground level with Tungstun Carbide bits complete as directed.		
	(i) Not exceeding 5 Mtrs.	Mtr.	1,000.00
	(ii) Between 5 Mtrs. and 10 Mtrs.	Mtr.	1,100.00
	(iii) Between 10 Mtrs. and 15 Mtrs.	Mtr.	1,200.00
	(iv) Between 15 Mtrs. and 20 Mtrs.	Mtr.	1,300.00
	(v) Between 20 Mtrs. and 25 Mtrs.	Mtr.	1,400.00
	(vi) Between 25 Mtrs. and 30 Mtrs.	Mtr.	1,500.00
	(vii) Between 30 Mtrs. and 35 Mtrs.	Mtr.	1,600.00
6	Take disturbed samples of soil as directed.	Each	200.00
7	Take undisturbed samples of soil as directed.	Each	250.00
8	Carry out standard vane shear test		
	(i) Upto 10 Mtrs.	Each	1,800.00
	(ii) Between 10 Mtrs. and 20 Mtrs.	Each	2,000.00
9	Carry out standard penetration test		
	(i) Upto 10 Mtrs.	Each	250.00
	(ii) Between 10 Mtrs. and 20 Mtrs.	Each	250.00
10	Providing & installing piezometers at the location of each bore holes for study of fluctuations in water table (Water table studies to be carried out weekly for a period of 3 months) with regular weekly interval and predetermined time & day each week and depth of water recorded with respect to the reduced level. Diurnal variations to be noted for 3 selected weeks during the period of observations and report submitted.	Each	4,000.00
	Laboratory Tests		
	(A) – Test on UDS Soil Samples		
11	Field dry density and NMC.	Each	250.00
12	Sieve Analysis.	Each	350.00

I - Soil Investigation

Sr. No.	Item Description	Unit	Rate in ₹
13	(UU) Direct shear.	Each	800.00
14	Atterberge Limit.	Each	400.00
15	Consolidation.	Each	2,000.00
16	(UU) Tri-axial compressive.	Each	1,700.00
17	Sieve plus hydrometer.	Each	1,500.00
18	Consolidated drained tri-axial compressive.	Each	4,000.00
	(B) - On Filter Sand Sample		
19	Sieve Analysis with D-10, D-60, CU+Sp. Gravity	Each	1,000.00
20	Standard Proctor Compressive	Each	800.00
21	Modified Standard Proctor Compressive	Each	900.00
22	Lab CBR, Soaked - Unsoaked	Each	1,500.00
23	Pile load test	Each	24,270.00
24	Cyclic Load Test	Each	36,400.00
	(C) - Test on Rock Core Sample		
25	Crushing Strength	Each	1,300.00
26	Point Load	Each	1,300.00
27	Brazillian	Each	1,300.00
28	E-Value	Each	2,500.00
29	Water Absorption	Each	200.00
30	Dry Density	Each	200.00
31	Wet Density	Each	200.00
32	Porosity	Each	200.00
33	Submerse Density	Each	200.00
34	Teri-axial Compression	Each	4,000.00
	(D) - Test on Aggregate Sample		
35	Sieve Analysis	Each	610.00
36	Water Absorption	Each	240.00
37	Specific Gravity	Each	240.00
38	Impact Value %	Each	360.00
39	Crushing Value %	Each	490.00
40	L.A. Abrasion Value	Each	730.00
41	Combined flakiness & Elongation Indices	Each	850.00
	(E) - Test on River Sand/ Crushed Sand		
42	Sieve Analysis, Silt content & Fineness Modulus	Each	610.00
43	Specific Gravity	Each	240.00
44	Loose & Vibrated Density	Each	360.00
45	Bulking of Sand	Each	490.00
	(F) - Test on Filter Media		
46	Sieve Analysis with Uniformity Coefficient & Sp. Gravity	Each	970.00

I - Soil Investigation

Sr. No.	Item Description	Unit	Rate in ₹
	(G) - Test on Bitumen Sample		
47	Penetration at 25 Deg.C	Each	360.00
48	Softening Point (Ring & ball)	Each	360.00
49	Ductility at 27 Deg.C	Each	360.00
50	Specific Gravity of Bitumen	Each	360.00
	(H) - Test on Bituminous Mixes, Asphaltic Macadam & Concrete etc.		
51	Bitumen Content & gradation	Each	850.00
52	Flow Value	Each	140.00
53	Compacted Density	Each	140.00
54	Martial Stability in Kg.	Each	560.00
	(I) - Test on Mastic Asphalt		
55	Hardness No.	Each	2,430.00
56	Bitumen Content and Gradation	Each	1,210.00
	(J) - Mix Designs		
57	Asphaltic Concrete	Each	11,250.00
58	Bituminous Macadam	Each	11,250.00
59	Dense Bituminous Macadam	Each	11,250.00
60	Semi Dense Asphaltic Concrete	Each	11,250.00
61	Dense Asphaltic concrete	Each	11,250.00
62	Granular Sub- Base	Each	11,250.00
63	Wet Mix Macadam	Each	9,840.00
	(K) - Crumb Rubber Modified Bitumen & Polymer Modified Bitumen		
64	All Tests as per IS	Each	12,130.00

II - Pile Foundation

Sr. No.	Item Description	Unit	Rate in ₹
1	Boring for cast in situ pile using grab/ bailer & steel casing upto required depth through any soil or material not requiring use of chisel, including preliminary surface excavation through asphaltic pavement and sub base of rubble packing/ stone metalling where necessary for starting boring, remove and transport/ dumping the bored/ excavated material anywhere outside MbPT estate complete as directed.		
	(a) pile not exceeding 500 mm in dia.	Mtr.	550.00
	(b) pile 550 mm in dia.	Mtr.	650.00
	(c) pile 600 mm in dia.	Mtr.	700.00
	(d) pile 650 mm in dia.	Mtr.	750.00
	(e) pile 700 mm in dia.	Mtr.	800.00
	(f) pile 750 mm in dia.	Mtr.	850.00
	(g) pile 800 mm in dia.	Mtr.	900.00
	(h) pile 850 mm in dia.	Mtr.	1,050.00
	(i) pile 900 mm in dia.	Mtr.	1,200.00
	(j) pile 950 mm in dia.	Mtr.	1,350.00
	(k) pile 1000 mm in dia.	Mtr.	1,500.00
	(l) pile 1050 mm in dia.	Mtr.	1,650.00
	(m) pile 1100 mm in dia.	Mtr.	1,800.00
	(n) pile 1150 mm in dia.	Mtr.	2,150.00
	(o) pile 1200 mm in dia.	Mtr.	2,400.00
2	Boring for cast in situ pile using chisel & steel casing upto required depth through hard strata/ rocks/ boulders or other material requiring use of chisel including removing and transporting the bored materials anywhere outside MbPT estate complete as directed.		
	(a) pile not exceeding 500 mm in dia.	Mtr.	1,000.00
	(b) pile 550 mm in dia.	Mtr.	1,200.00
	(c) pile 600 mm in dia.	Mtr.	1,300.00
	(d) pile 650 mm in dia.	Mtr.	1,400.00
	(e) pile 700 mm in dia.	Mtr.	1,800.00
	(f) pile 750 mm in dia.	Mtr.	1,900.00
	(g) pile 800 mm in dia.	Mtr.	2,000.00
	(h) pile 850 mm in dia.	Mtr.	2,200.00
	(i) pile 900 mm in dia.	Mtr.	2,300.00
	(j) pile 950 mm in dia.	Mtr.	2,400.00
	(k) pile 1000 mm in dia.	Mtr.	2,500.00
	(l) pile 1050 mm in dia.	Mtr.	2,700.00
	(m) pile 1100 mm in dia.	Mtr.	2,750.00
	(n) pile 1150 mm in dia.	Mtr.	2,800.00
	(o) pile 1200 mm in dia.	Mtr.	3,000.00
3	Clean thoroughly the bore-holes of pile of any diameter by approved method until the bore is cleaned complete as directed.	Each	700.00

II - Pile Foundation

Sr. No.	Item Description	Unit	Rate in ₹
4	RCC M-20 grade or (1:1.5:3) in cast in situ pile of any diameter excluding reinforcement but including cutting surplus concrete, dressing the top surface of pile and interlacing reinforcement bars into pile caps complete as directed (Payment for concrete shall be for nominal cross section of pile multiplied by payable length).	Cu.M.	4,461.00
	(a) Extra over rate for Item No.4 above for adding admix corrosion inhibiting admixture, Polyalk CP293 or equivalent procured from approved manufacturer @500 ml. per bag of cement as per maker's specifications.	Cu.M.	810.00
5	Filling the pile bore of any diameter of pile with approved material including consolidation and watering etc. complete as directed (Payment shall be for nominal cross section of bore multiplied by length of bore filled).	Cu.M.	500.00
6	Carrying out static load test on pile including supplying, arranging and removing kentlage for 1.5 times the safe bearing capacity claimed for the pile complete as directed (safe bearing capacity not exceeding 100 MT).	Each	50,000.00
7	Extra over item No.6 above for each excess of safe bearing capacity of 10 MT or part thereof over 100 MT.	Each	3,000.00
8	Providing and fixing m.s. reinforcement for RCC pile members including cutting, bending, placing in position, binding complete as directed (binding wire will not be payable).	qntl.	3,500.00
9	Providing and fixing high yield strength deformed bars reinforcement for RCC pile members including cutting, bending, placing in position, binding complete as directed (binding wire will not be payable).	qntl.	3,800.00
10	Cement concrete (1:1.5:3) or M20 grade in R.C.C. members including cost of formwork but excluding reinforcement in pile caps and plinth beams complete as directed.	Cu.M.	4,461.00
	(a) Extra over rate for Item No.10 above for adding admix corrosion inhibiting admixture, Polyalk CP293 or equivalent procured from approved manufacturer @500 ml. per bag of cement as per maker's specifications.	Cu.M.	810.00

III - Earth Work

Sr. No.	Item Description	Unit	Rate in ₹
1	Earthwork in surface excavation not exceeding 30 Cm. in depth but exceeding 1.5 Mtrs. in width as well as 10 Sq.M. on plan including clearing of rank vegetation, bailing out water & stacking the surplus excavated materials within a lead of 100 Mtrs. etc. including cost of fencing, lighting & watching etc. complete as directed.		
	(a) Loose or soft soil	Sq.M.	10.40
	(b) Dense or hard soil	Sq.M.	11.80
2	Earthwork upto 1.5 Mtrs. depth in bulk excavation exceeding 1.5 Mtrs. in width as well as 10 Sq.M. on plan including clearing of rank vegetation, bailing out water, re-filling the excavated material wherever directed and watering & consolidating the same & stacking the surplus excavated materials within a lead of 100 Mtrs. etc. including cost of fencing, lighting & watching complete as directed.		
	(a) Loose or soft soil	Cu.M.	104.00
	(b) Dense or hard soil	Cu.M.	123.00
	(c) Disintegrated or soft rock (not requiring blasting)	Cu.M.	284.00
	(d) Hard rock by chiselling (i.e. hard rock requiring blasting but where blasting is prohibited)	Cu.M.	651.00
3	Excavation upto 1.5 Mtrs. depth in trenches for foundations/ drains/ pipes/ cables etc. not exceeding 1.5 Mtrs. in width including dressing of sides & ramming the formation, clearing of rank vegetation & bailing out water, re-filling the excavated material wherever directed and consolidating the same including stacking the surplus excavated materials within a lead of 100 Mtrs. etc. including cost of fencing, lighting & watching etc. complete as directed.		
	(a) Loose or soft soil	Cu.M.	108.00
	(b) Dense or hard soil	Cu.M.	129.00
	(c) Disintegrated or soft rock (not requiring blasting)	Cu.M.	304.00
	(d) Hard rock by chiselling (i.e. hard rock requiring blasting but where blasting is prohibited)	Cu.M.	671.00
4	Excavation upto 1.5 Mtrs. depth for shafts, wells cesspits & the like not exceeding 1.5 Mtrs. in width & not exceeding 10 Sq.M. on plan including dressing of sides - do - - do - as in Item 3 above.		
	(a) Loose or soft soil	Cu.M.	108.00
	(b) Dense or hard soil	Cu.M.	129.00
	(c) Disintegrated or soft rock (not requiring blasting)	Cu.M.	304.00
	(d) Hard rock by chiselling (i.e. hard rock requiring blasting but where blasting is prohibited)	Cu.M.	671.00

III - Earth Work

Sr. No.	Item Description	Unit	Rate in ₹
5	Extra over rates for Item Nos. 2, 3 & 4 above for every additional depth of 1.5 Mtrs. or part thereof.		
	(a) Loose/ soft or Dense/ hard soil	Cu.M.	7.00
	(b) Disintegrated/ soft or hard rock	Cu.M.	15.00
6	Close timbering in bulk excavation including use and waste of all necessary timber work in strutting, shoring and packing cavities (wherever required) and fixing and removal complete as directed (measurement to be taken of the face area of excavation timbered).		
	(a) depth not exceeding 1.5 Mtrs.	Sq.M.	87.00
	(b) depth between 1.5 Mtrs. and 3.0 Mtrs.	Sq.M.	90.00
	(c) depth between 3.0 Mtrs. and 4.5 Mtrs.	Sq.M.	94.00
7	Close timbering in trenches including use and waste of all necessary timber work in wales, struts, close polling boards/ horizontal sheeting/ runners etc. as may be necessary, shoring and packing cavities (wherever required) and fixing and removal complete as directed (measurement to be taken of the face area of excavation timbered).		
	(a) depth not exceeding 1.5 Mtrs.	Sq.M.	99.00
	(b) depth between 1.5 Mtrs. and 3.0 Mtrs.	Sq.M.	102.00
	(c) depth between 3.0 Mtrs. and 4.5 Mtrs.	Sq.M.	108.00
8	Close timbering in case of shafts, wells, cesspits, man-holes and the like including use and waste of all necessary timber work including wales, struts, close polling boards/ horizontal sheeting/ runners etc. as may be necessary, shoring and packing cavities (wherever required) and fixing and removal complete as directed (measurement to be taken of the face area of excavation timbered).		
	(a) depth not exceeding 1.5 Mtrs.	Sq.M.	104.00
	(b) depth between 1.5 Mtrs. and 3.0 Mtrs.	Sq.M.	110.00
	(c) depth between 3.0 Mtrs. and 4.5 Mtrs.	Sq.M.	116.00
9	Extra over rates for Item Nos. 6, 7, & 8 above for planking strutting and packing materials in close timbering if required to be left permanently in position (face area of excavation for which timbering is permanently left to be measured).	Sq.M.	1,337.00
10	Open timbering in bulk excavation including use and waste of all necessary timber work in strutting, shoring and fixing and removal complete (measurement to be taken of the face area of excavation timbered).		
	(a) depth not exceeding 1.5 Mtrs.	Sq.M.	29.00
	(b) depth between 1.5 Mtrs. and 3.0 Mtrs.	Sq.M.	31.00
	(c) depth between 3.0 Mtrs. and 4.5 Mtrs.	Sq.M.	34.00

III - Earth Work

Sr. No.	Item Description	Unit	Rate in ₹
11	Open timbering in trenches including use and waste of all necessary timber work in wales, struts, open polling boards/ horizontal sheeting/ runners etc. as may be necessary and fixing and removal complete as directed (measurement to be taken of the face area of excavation timbered).		
	(a) depth not exceeding 1.5 Mtrs.	Sq.M.	51.00
	(b) depth between 1.5 Mtrs. and 3.0 Mtrs.	Sq.M.	53.00
	(c) depth between 3.0 Mtrs. and 4.5 Mtrs.	Sq.M.	56.00
12	Open timbering in case of shafts, wells, cesspits, man-holes and the like including use and waste of all necessary timber work in wales, struts, open polling boards/ horizontal sheeting/ runners etc. as may be necessary and fixing and removal complete as directed (measurement to be taken of the face area of excavation timbered).		
	(a) depth not exceeding 1.5 Mtrs.	Sq.M.	46.00
	(b) depth between 1.5 Mtrs. and 3.0 Mtrs.	Sq.M.	49.00
	(c) depth between 3.0 Mtrs. and 4.5 Mtrs.	Sq.M.	52.00
13	Extra over rates for Item Nos. 10,11 and 12 above for planking and strutting in open timbering if required to be left permanently in position (face area of excavation for which timbering is permanently left to be measured).	Sq.M.	689.00
14	Supplying & filling approved filling material/ murrum in trenches, plinths, sides of foundations etc. in layers not exceeding 150 mm in depth including watering, consolidating etc. complete as directed.	Cu.M.	468.00
15	Pumping out water from trenches, pits etc. upto 4 Mtrs. depth from ground level and discharging of the water through hose to the nearest water gully/ man-hole/ drain complete as directed (Pumping capacity should be not less than 5 litres per second).	Pump working hour	135.00
16	Filling with selected material in layers not exceeding 150 mm in depth including watering, consolidating complete as directed (using imported filling materials made available at site by the MbPT).	Cu.M.	44.00
17	Transporting by lorries to Municipal dumping yard, the surplus excavated materials, debris, kutchra etc. anywhere from the MbPT estate excluding payment of MCGM dumping charges including excavation of heaps, loading, unloading at MCGM dumping ground and spreading the same as required and as directed (MCGM dumping charges will be reimbursed to the contractor at actuals).	Cu.M.	194.00

III - Earth Work

Sr. No.	Item Description	Unit	Rate in ₹
18	Transporting the surplus excavated material, stones, debris, kutchra etc. from MbPT estate including loading & taking away the materials anywhere outside MbPT Estate etc. complete as directed.	Cu.M.	267.00
19	Supply on hire JCB for loading, levelling purpose including necessary fuel, operator etc. complete as directed (Stoppage of JCB for more than 5 minutes (twice in a shift) shall be considered as non-working period).	Hour	825.00
20	Supply on hire Bulldozer of capacity TD80 with 12 feet wide blade including necessary fuel, oil & operator etc. complete as directed (Stoppage of Bulldozer more than 5 minutes (twice in a shift) shall be considered as non-working period. 10 minutes break for fuel filling shall be allowed in a shift).	Hour	1,100.00
21	Supply on hire 8-10 T capacity road roller with necessary fuel & operator etc. complete as directed.	Hour	364.00
22	Supply on hire vibratory road roller with necessary fuel & operator etc. complete as directed.	Hour	1,210.00

IV - Concrete Work

Sr. No.	Item Description	Unit	Rate in ₹
<p>Note: Floor two level is the level of the second upper floor above ground/ plinth level. Ground/ plinth level slab and mezzanine floor slabs, if any, are not counted as floor levels.</p>			
1	Cement concrete (1:2:4) or M15 grade including cost of curing etc. complete as directed in		
	(a) Foundation and plinth etc.		
	(i) excluding form work	Cu.M.	3,765.00
	(ii) including form work	Cu.M.	3,994.00
	(iii) Cost of form work	Cu.M.	229.00
	(b) Cement concrete walls with attached pilasters in foundations etc.		
	(i) excluding form work	Cu.M.	3,798.00
	(ii) including form work	Cu.M.	5,568.00
	(iii) Cost of form work	Cu.M.	1,770.00
	(c) Extra over rate for Item Nos.1 (a) & (b) above for adding admix super plastcizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement as per maker's specifications.	Cu.M.	106.00
2	Cement concrete (1:3:6) or M10 grade in foundation and plinth etc. including cost of curing etc. complete as directed.		
	(a) excluding form work	Cu.M.	3,290.00
	(b) including form work	Cu.M.	3,519.00
	(c) Cost of form work	Cu.M.	229.00
3	Cement concrete (1:1.5:3) or M20 grade including cost of curing etc. complete as directed in		
	(a) Foundation and plinth etc.		
	(i) excluding form work	Cu.M.	4,145.00
	(ii) including form work	Cu.M.	4,374.00
	(iii) Cost of form work	Cu.M.	229.00
	(b) Cement concrete walls with attached pilasters in foundations etc.		
	(i) excluding form work	Cu.M.	4,186.00
	(ii) including form work	Cu.M.	5,956.00
	(iii) Cost of form work	Cu.M.	1,770.00
	(c) Extra over rate for Item Nos.3 (a) & (b) above for adding admix super plastcizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement as per maker's specifications.	Cu.M.	132.00
4	Cement concrete (1:3:6) in levelling course upto 100 mm thickness complete as directed.	Cu.M.	3,247.00
5	Cement concrete (1:4:8) in levelling course upto 100 mm thickness complete as directed.	Cu.M.	2,969.00
6	Cement concrete (1:2:4) or M15 grade including smooth finishing to the exposed faces with cement mortar (1:3) including cost of curing etc.		

IV - Concrete Work

Sr. No.	Item Description	Unit	Rate in ₹
	complete as directed upto floor two level in		
	(a) string course, copings, bed blocks, plain window sills etc.		
	(i) excluding form work	Cu.M.	4,662.00
	(ii) including form work	Cu.M.	5,992.00
	(iii) Cost of form work	Cu.M.	1,330.00
	(b) mouldings as in cornices, window sills		
	(i) excluding form work	Cu.M.	5,305.00
	(ii) including form work	Cu.M.	6,635.00
	(iii) Cost of form work	Cu.M.	1,330.00
	(c) Extra over rate for Item Nos.6 (a) & (b) above for adding admix super plastcizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement.	Cu.M.	106.00
7	Extra over rates for Item No.6 above for every subsequent floor, above floor two level.	per floor per Cu.M.	50.00
8	Mass cement concrete (1:3:6) with 10% rubble plums in dock walls etc. including cost of curing etc. complete as directed.		
	(a) excluding form work	Cu.M.	3,031.00
	(b) including form work	Cu.M.	3,260.00
	(c) Cost of form work	Cu.M.	229.00
9	Cement concrete masonry in walls of structures using cement concrete (1:2:4) or M15 grade pre-cast solid blocks (factory made) of requisite sizes, having external face finished with waterproof cement mortar (1:2) 20 mm thick, the blocks set in cement mortar (1:4) including in-situ cement concrete (1:2:4) or M15 grade wherever required, scaffolding, raking out joints, cement pointing (1:1), curing etc. complete as directed.		
	(a) upto floor two level	Cu.M.	4,355.00
	(b) Extra over rate for Item No.9(a) above for every subsequent floor above floor two level.	per floor per Cu.M.	44.00
10	Cement concrete masonry in walls of structures using cement concrete (1:2:4) or M15 grade pre-cast hollow blocks (factory made) 100 mm thick and of requisite sizes, set in cement mortar (1:6) including in-situ cement concrete (1:2:4) or M15 grade wherever required, scaffolding, raking out joints, curing etc. complete as directed.		
	(a) upto floor two level	Sq.M.	508.00
	(b) Extra over rate for Item No.10(a) above for every subsequent floor above floor two level.	per floor per Sq.M.	5.00
11	-- do -- -- do -- pre-cast hollow blocks (factory made) 150 mm thick -- do -- as in Item No.10 above.		
	(a) upto floor two level	Sq.M.	617.00

IV - Concrete Work

Sr. No.	Item Description	Unit	Rate in ₹
	(b) Extra over rate for Item No.11(a) above for every subsequent floor above floor two level.	per floor per Sq.M.	6.00
12	-- do -- -- do -- pre-cast hollow blocks (factory made) 200 mm thick -- do -- as in Item No.10 above.		
	(a) upto floor two level	Sq.M.	711.00
	(b) Extra over rate for Item No.12(a) above for every subsequent floor above floor two level.	per floor per Sq.M.	7.00
13	Cement concrete masonry for compound wall etc. using cement concrete (1:2:4) or M15 grade pre-cast solid blocks (factory made) of requisite sizes, the blocks set in cement mortar (1:4) including in-situ concrete (1:2:4) or M15 grade wherever required, scaffolding, raking out joints, cement pointing (1:1), curing etc. complete as directed.	Cu.M.	4,355.00
14	Damp proof course in cement concrete (1:2:4) with water proofing compound to maker's specifications including curing, finishing top surface smooth etc. complete as directed.		
	(a) Cement concrete course 25 mm thick	Sq.M.	152.00
	(b) Cement concrete course 40 mm thick	Sq.M.	212.00
	(c) Cement concrete course 50 mm thick	Sq.M.	252.00
15	Taking 100 mm dia. concrete core from concrete pavement slab upto M35 grade at the location as directed by Engineer-in-charge and testing the extracted core at approved laboratories in the presence of MbPT official including cost of taking core, transporting to approved laboratory, testing of cores etc. complete as directed.	Each core	3,640.00
16	Cement concrete (1:1:2) M25 grade in foundation and plinth etc. complete as directed.		
	(a) excluding form work	Cu.M.	5,031.00
	(b) including form work	Cu.M.	5,260.00
	(c) Cost of form work	Cu.M.	229.00
17	Cement concrete (1:1:2) M25 grade in superstructure wall with attached pillasters in foundation etc. complete as directed.		
	(a) excluding form work	Cu.M.	5,069.00
	(b) including form work	Cu.M.	6,839.00
	(c) Cost of form work	Cu.M.	1,770.00
	(d) Extra over rate for Item Nos.16 (a) & (b) and 17 (a) & (b) above for adding admix super plastcizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement as per maker's specifications.	Cu.M.	165.00

V - Cement Concrete in RCC members

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing and laying cement concrete M20 (1:1.5:3) including tampering, vibrating, shuttering, finishing, curing etc. including adding suitable admixture for controlled setting time and using rapid hardening cement for attaining early strength etc. complete as directed.	Cu.M.	4,139.00
	(a) Extra over rate for Item Nos.1 above for adding admix super plastcizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement as per maker's specifications.	Cu.M.	132.00
2	Reinforced cement concrete (1:1.5:3) or M20 grade in floors, roofs, landings, balconies upto floor two level including cement, cost of centering, shuttering, boxing, ramming, consolidating, watering, curing, etc. complete but excluding reinforcement.		
	(a) Slab thickness 75 mm	Sq.M.	514.00
	(b) Slab thickness 80 mm	Sq.M.	535.00
	(c) Slab thickness 90 mm	Sq.M.	577.00
	(d) Slab thickness 100 mm	Sq.M.	620.00
	(e) Slab thickness 110 mm	Sq.M.	662.00
	(f) Slab thickness 120 mm	Sq.M.	705.00
	(g) Slab thickness 140 mm	Sq.M.	790.00
	(h) Slab thickness 150 mm	Sq.M.	832.00
	(i) Slab thickness 160 mm	Sq.M.	875.00
	(j) Slab thickness 180 mm	Sq.M.	959.00
	(k) Slab thickness 200 mm	Sq.M.	1,044.00
3	Providing and laying micro-concrete of Polycrrete-A or equivalent from approved manufacturer in line and level to match with existing layer, using bonding coat of Sunepoxy-358 (Resin : Hardner mixed in the ratio 1 : 0.5 by weight) or equivalent with existing surface, curing, excluding form work etc. complete as directed (Rate is inclusive of bonding polymer coat).	Kg.	21.00
4.	Providing RCC M20 (1:1.5:3) in chajja, etc. including finishing and plastering on exposed surface with CM (1:3) or sand faced, drip moulding inclusive of centering, shuttering, consolidating, watering & curing etc. complete but exclusive of reinforcement upto floor two level.		
	(a) 80 mm thick	Sq.M.	807.00
	(b) 100 mm thick	Sq.M.	892.00
5	Providing and laying Ready mix Concrete (RMC) M30 grade concrete procured from reputed RMC plant and transported by transit mixer and placing at work (concrete to have required workability and desired slump) including shuttering, vibrating, curing etc. for RCC work upto floor two level complete as directed (if required pumping	Cu.M.	8,353.00

V - Cement Concrete in RCC members

Sr. No.	Item Description	Unit	Rate in ₹
	arrangement for any height shall be made at no extra cost).		
6	RCC M20 (1:1.5:3) in 50 mm thick vertical and horizontal fins including finishing smooth as directed, consolidating, watering & curing etc. complete upto floor two level, excluding reinforcement.		
	(a) excluding form work	Cu.M.	4,424.00
	(b) including form work	Cu.M.	6,049.00
	(c) for 80 mm thick fins including form work	Sq.M.	484.00
7	Extra over rate for Item No.1 in plinth and superstructure for using ready mixed concrete (RMC) procured from reputed RMC plant and transported by transit mixer and placing at work (concrete to have required workability and desired slump) in plinth and superstructure (if required, pumping arrangement for any height shall be made at no extra cost).	Cu.M.	716.00
8	Extra over rate for Item Nos.2, 4 & 6 for every subsequent floor above floor two level.	Sq.M.	5.40
9	Extra over rate for Item Nos. 2, 4 and 6 for using ready mixed concrete (RMC) procured from reputed RMC plant and transported by transit mixer and placing at work (concrete to have required workability and desired slump) in slab, Chajja or Fins (if required, pumping arrangement for any height shall be made at no extra cost).	Sq.M.	98.00
10	Providing and fixing in position pre-cast RCC louvered window of size 0.6X1.0 Mtr. of section 75X75 mm with 16 mm dia. m.s. plain bars including 4 mm thick ground glass louvers 125 mm wide etc. complete as directed.	Each	920.00
11	Cement concrete (1:1.5:3) or M20 grade in RCC members including cost of consolidating, watering, curing etc. complete as directed but excluding reinforcement in		
	(a) foundations, footings, pile caps, plinth beams & the like & mass concrete		
	(i) excluding form work	Cu.M.	4,232.00
	(ii) including form work	Cu.M.	4,461.00
	(b) walls including attached pilasters, upto floor two level and buttresses, plinth and foundation		
	(i) excluding form work	Cu.M.	4,232.00
	(ii) including form work	Cu.M.	5,122.00
	(c) lintels & beams upto floor two level		
	(i) excluding form work	Cu.M.	4,247.00
	(ii) including form work	Cu.M.	5,049.00

V - Cement Concrete in RCC members

Sr. No.	Item Description	Unit	Rate in ₹
	(d) columns, pillars, posts and struts upto floor two level		
	(i) excluding form work	Cu.M.	4,301.00
	(ii) including form work	Cu.M.	7,434.00
	(e) staircases upto floor two level including stringer beams but excluding landing		
	(i) excluding form work	Cu.M.	4,692.00
	(ii) including form work	Cu.M.	5,674.00
	(f) moulded copings and the like upto floor two level		
	(i) excluding form work	Cu.M.	4,883.00
	(ii) including form work	Cu.M.	5,592.00
	(g) encasing rolled steel sections in beams & columns upto floor two level		
	(i) excluding form work	Cu.M.	4,377.00
	(ii) including form work	Cu.M.	7,510.00
	(h) Extra over rate for Item Nos.11 (a) to (g) above for adding admix corrosion inhibiting admixer Polyalk CP-293 or equivalent procured from approved manufacturer @500 ml. per bag of cement as per maker's specifications.	Cu.M.	810.00
	(i) Extra over rate for Item Nos.11 (a) to (g) above for adding admix super plasticizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement as per maker's specifications.	Cu.M.	132.00
12	Extra over rate for Item No.11 above for every subsequent floor above floor two level	per floor per Cu.M.	44.00
13	Cement concrete (1:1:2) or M25 including cost of consolidating, watering, curing etc. complete but excluding reinforcement in		
	(a) beams upto floor two level		
	(i) excluding form work	Cu.M.	4,837.00
	(ii) including form work	Cu.M.	6,195.00
	(b) columns upto floor two level		
	(i) excluding form work	Cu.M.	4,837.00
	(ii) including form work	Cu.M.	7,970.00
	(c) Extra over rate for Item Nos.13 (a) & (b) above for adding admix corrosion inhibiting admixer Polyalk CP-293 or equivalent procured from approved manufacturer @500 ml. per bag of cement as per maker's specifications.	Cu.M.	1,012.00
	(d) Extra over rate for Item Nos.13 (a) & (b) above for adding admix super plasticizer Polytancrete NGT or equivalent procured from approved manufacturer @250 ml. per bag of cement as per maker's specifications.	Cu.M.	165.00
14	Extra over rate for Item No.13 above for every subsequent floor above floor two level	per floor per Cu.M.	48.00

V - Cement Concrete in RCC members

Sr. No.	Item Description	Unit	Rate in ₹
15	Providing & fixing m.s. reinforcement steel (conforming to IS) upto floor two level for RCC members including cutting, bending, placing in position, binding complete as directed (binding wire will not be payable).	qntl.	3,979.00
16	Providing & fixing high yield strength (conforming to IS) deformed steel bars reinforcement upto floor two level for RCC members including cutting, bending, placing in position, binding complete as directed (binding wire will not be payable).	qntl.	4,045.00
17	Providing & fixing hard drawn steel wire (conforming to IS) fabric upto floor two level for RCC members including cutting, placing in position, binding complete (binding wire will not be payable).	qntl.	4,634.00
18	Extra over rate for Item Nos.15, 16 & 17 for every subsequent floor above floor two level	per floor per qntl.	40.00
19	Providing & fixing pre-cast cement concrete (1:2:4) jalli of approved design with nominal reinforcement including finishing and fixing complete.		
	(a) 50 mm thick jalli	Sq.M.	589.00
	(b) 40 mm thick jalli	Sq.M.	506.00
	(c) 25 mm thick jalli	Sq.M.	474.00
20	Providing & fixing in position RCC door frame of section 100X63 mm for opening size of 0.75X2.0 Mtrs. to w.c. or bath room including fixing the hold-fasts etc. complete as directed.	Each	1,074.00
21	Providing and fixing Thermal Mechanically Treated (TMT) deformed bars reinforcement upto floor two level for RCC members including cutting, bending, placing in position & binding complete including all wastage etc. complete (binding wire will not be payable).	qntl.	5,135.00
22	Extra over rate for Item No.21 above for		
	(a) every subsequent floor above floor two level	per floor per qntl.	51.00
	(b) providing and applying epoxy treatment to reinforcement bars after necessary cutting etc. in factory complete including all transportation charges etc. complete.	qntl.	1,265.00
23	Extra over rate for Item No.11 and 13 in plinth and superstructure for using ready mixed concrete (RMC) procured from reputed RMC plant and transported by transit mixer and placing at work (concrete to have required workability and desired slump) in plinth and superstructure (if required, pumping arrangement for any height shall be made at no extra cost).	Cu.M.	771.00

V - Cement Concrete in RCC members

Sr. No.	Item Description	Unit	Rate in ₹
24	Cement concrete M30 including cost of consolidating, watering, curing etc. complete and but excluding reinforcement in		
	(a) beams upto floor two level		
	(i) excluding form work	Cu.M.	5,239.00
	(ii) including form work	Cu.M.	6,597.00
	(b) columns upto floor two level		
	(i) excluding form work	Cu.M.	5,239.00
	(ii) including form work	Cu.M.	8,690.00
25	Extra over rate for Item No.24 above for every subsequent floor above floor two level.	per floor per Cu.M.	52.00
26	Cement concrete M40 including cost of consolidating, watering, curing etc. complete but excluding reinforcement in		
	(a) beams upto floor two level		
	(i) excluding form work	Cu.M.	5,595.00
	(ii) including form work	Cu.M.	6,953.00
	(b) columns upto floor two level		
	(i) excluding form work	Cu.M.	5,595.00
	(ii) including form work	Cu.M.	9,046.00
27	Extra over rate for Item No.26 above for every subsequent floor above floor two level.	Cu.M.	56.00
28	Extra over rate for Item Nos.24 to 26 above for adding admix corrosion inhibiting admixer Polyalk CP-293 or equivalent procured from approved manufacturer @500 ml. per bag of cement as per maker's specifications.	Cu.M.	911.00
29	Providing and applying acrylic based polymeric bonding coat evenly between concrete to concrete joints/ construction joints using Polyalk EP or equivalent by mixing with cement in the ratio 1 : 0.5 by weight to the entire concrete joint.	Sq.M.	65.00

VI - Brick Work

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing brick masonry with conventional/ IS type bricks one brick thick including scaffolding, watering, racking out joints etc. complete as directed.		
	(a) <u>Set in cement mortar (1:4)</u>		
	(i) in foundation & plinth	Sq.M.	779.00
	(ii) in superstructure upto floor two level	Sq.M.	838.00
	(iii) Extra over rate for (a)(ii) above for superstructure above floor two level	per floor per Sq.M.	8.00
	(b) <u>Set in cement mortar (1:5)</u>		
	(i) in foundation & plinth	Sq.M.	757.00
	(ii) in superstructure upto floor two level	Sq.M.	798.00
	(iii) Extra over rate for (b)(ii) above for superstructure above floor two level	per floor per Sq.M.	8.00
	(c) <u>Set in cement mortar (1:6)</u>		
	(i) in foundation & plinth	Sq.M.	739.00
	(ii) in superstructure upto floor two level	Sq.M.	780.00
	(iii) Extra over rate for (c)(ii) above for superstructure above floor two level	per floor per Sq.M.	8.00
2	Providing brick masonry with conventional/ IS type bricks of greater than one brick thickness including scaffolding, watering etc. complete as directed.		
	(a) <u>Set in cement mortar (1:4)</u>		
	(i) in foundation & plinth	Cu.M.	3,387.00
	(ii) in superstructure upto floor two level	Cu.M.	3,547.00
	(iii) Extra over rate for (a)(ii) above for superstructure above floor two level	per floor per Cu.M.	35.00
	(b) <u>Set in cement mortar (1:5)</u>		
	(i) in foundation & plinth	Cu.M.	3,293.00
	(ii) in superstructure upto floor two level	Cu.M.	3,453.00
	(iii) Extra over rate for (b)(ii) above for superstructure above floor two level	per floor per Cu.M.	35.00
	(c) <u>Set in cement mortar (1:6)</u>		
	(i) in foundation & plinth	Cu.M.	3,213.00
	(ii) in superstructure upto floor two level	Cu.M.	3,373.00
	(iii) Extra over rate for (c)(ii) above for superstructure above floor two level	per floor per Cu.M.	34.00
3	Providing brick-nogged wall with Conventional/ IS type bricks half brick thick on any floor set in CM (1:4) including scaffolding watering etc. complete as directed but excluding RCC stiffeners (RCC stiffeners will be provided as per specifications but will be measured and paid separately under the relevant items of concrete and reinforcement. The area of RCC stiffeners will be deducted from the measurement of this item).	Sq.M.	401.00
4	Brick-on-edge wall set in CM (1:4) in teak wood frame work including scaffolding, watering etc complete (Teak wood work will be measured and paid for separately).	Sq.M.	232.00

VI - Brick Work

Sr. No.	Item Description	Unit	Rate in ₹
5	Brick masonry in the walls of underground tank set in CM (1:3) with approved waterproofing compound to Maker's specifications including scaffolding, watering etc. complete as directed.		
	(a) one brick thick	Sq.M.	847.00
	(b) greater than one brick thick	Cu.M.	3,681.00
6	Making holes in masonry for exhaust fan of size 450 to 530 mm, finishing the same by CM (1:3) and fixing the frame etc. complete as directed.	Each	209.00

VII - Stone Work

Sr. No.	Item Description	Unit	Rate in ₹
1	Random rubble masonry below ground level with trap stone set in cement mortar (1:6) including bailing out water manually, curing etc. complete as directed.	Cu.M.	2,564.00
2	Random rubble masonry above ground level with trap stone, set in cement mortar (1:6) including scaffolding, curing etc. complete as directed.	Cu.M.	2,619.00
3	Random rubble masonry with trap stone, in pillars, below ground level, set in cement mortar (1:6) including bailing out water manually, curing etc. complete as directed.	Cu.M.	2,749.00
4	Random rubble masonry with trap stone, in pillars, above ground level, set in cement mortar (1:6) including bailing out water manually, scaffolding, curing etc. complete as directed.	Cu.M.	2,890.00
5	Random rubble masonry below ground level using stones, supplied by MbPT at site, set in cement mortar (1:6) including bailing out water manually, curing etc. complete as directed.	Cu.M.	1,601.00
6	Random rubble masonry above ground level using stones, supplied by MbPT at site, set in cement mortar (1:6) including bailing out water manually, scaffolding, curing etc. complete as directed.	Cu.M.	1,786.00
7	Coursed rubble masonry (second sort) in trap stone, below ground level set in cement mortar (1:6) including bailing out water manually, curing etc. complete as directed.	Cu.M.	2,993.00
8	Coursed rubble masonry (second sort) in trap stone, above ground level, set in cement mortar (1:6) including scaffolding, curing etc. complete as directed.	Cu.M.	3,123.00
9	Coursed rubble masonry in trap stone in cement mortar (1:4) in dock walls, with Ashlar facing including scaffolding, curing etc. complete as directed.	Cu.M.	9,008.00
10	Coursed rubble masonry using stones supplied by MbPT at site, set in cement mortar (1:4) in dock walls, with Ashlar facing including scaffolding, curing etc. complete as directed.	Cu.M.	4,178.00
11	Fixing granite coping stones supplied at site by MbPT in dock walls, set in cement mortar (1:4) including curing etc. complete as directed.	Cu.M.	4,535.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
1	(a) Indian patent stone of cement concrete (1:2:4), 40 mm average thick (with coarse aggregate upto 20 mm size) finished smooth (with extra cement) by trowelling in cement or geroo as directed including lining work to required pattern, finishing to required grades, curing etc. complete as directed.	Sq.M.	219.00
	(b) Extra over rate for Item No.1 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	16.00
2	(a) Indian patent stone of cement concrete (1:2:4), 50 mm average thick (with coarse aggregate upto 20 mm size) finished smooth (with extra cement) by trowelling in cement or geroo as directed including filling up the joints between the bays (1.25X1.25 Mtrs.) with bitumen (10/20) penetration, lining work to required pattern, finishing to required grades, curing etc. complete as directed.	Sq.M.	257.00
	(b) Extra over rate for Item No.2 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	19.00
3	Extra over rate for Item No.2 for adding waterproofing compound of approved manufacturer as per maker's specifications.	Sq.M.	12.00
4	(a) Indian patent stone (IPS) 40 mm average thick consisting of under layer of cement concrete (1:2:4) 30 mm thick & top 10 mm thick layer done simultaneously using mortar made of 1 part cement red oxide mix (3.5kg of red oxide of iron added to 50 Kgs. of cement) and 3 parts coarse sand by volume, finished with floating coat of cement red oxide mix including lining work to required pattern, finishing to required grades, curing etc. complete as directed.	Sq.M.	276.00
	(b) Extra over rate for Item No.4 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	21.00
5	Preparing roof surface including dismantling the plaster upto 300 mm height (above finished level) of parapet, columns, staircase room walls etc. and providing cement based waterproofing treatment of Polyalk WP or equivalent as per manufacturer's specifications using river sand and making the same completely waterproof including 300 mm (above finished level) vertical face on parapet, columns, staircase room walls etc. in accordance with the approved detailed specifications and	Sq.M.	742.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
	sequences of operations as described in 'Addendum to Specifications' and also inclusive of vatas, etc. and carrying out test for water tightness by ponding terraces for 240 hours (Payment shall be made for horizontal projected area. No payment for waterproofing 300 mm (above finished level) vertical faces mentioned above shall be made, and the cost of the same deemed to be included in the rate).		
5	(a) Extra over rate for providing and laying china mosaic on existing IPS in given design etc. complete as directed.	Sq.M.	140.00
6	Providing and applying three coats of 'New Coat' manufactured by Dr.Fixit or 'Duckback-S' manufactured by Sunanda or equivalent over thoroughly prepared existing old waterproof surface without breaking the surface to build-up a total dry film thickness of 1 mm including priming coat as per the manufacturer's specifications etc. complete as directed.	Sq.M.	415.00
7	Providing and applying exterior waterproof coating in two coats of 'Suncoat' manufactured by Sunanda or 'Raincoat' manufactured by Dr.Fixit or equivalent over the thoroughly prepared clean and sound exterior surface of the wall as per manufacturer's specifications etc. complete as directed.	Sq.M.	136.00
8	Providing and laying IPS (1:2:4), 50 mm thick (with course aggregate upto 20 mm size) using river sand with addition of special waterproofing compound at the rate of 1 Kg. per bag of cement including laying thick cement slurry mixed with special waterproofing compound over the existing old brick bat coba after preparing the roof surface including dismantling the plaster upto 300 mm height (above finished level) of parapet, columns, staircase room walls etc. and making the terrace completely waterproof including 300 mm (above finished level) vertical face on parapet, columns, staircase room walls etc. and providing vata etc. including carrying out test for water tightness by impounding water for 240 hours etc. (Payment shall be made for horizontal projected area. No payment for waterproofing 300 mm (above finished level) vertical faces mentioned above shall be made and the cost of the same deemed to be included in the rate).	Sq.M.	270.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
9	Providing and laying approved quality pre-cast plain cement tiles 20 mm thick (size: 250X250 mm) in flooring, laid on 25 to 40 mm thick cement mortar (1:6) bedding and jointed with neat cement slurry with pigment to match the shade of the tiles and polishing in 3 coats etc. complete as directed.		
	(a) Grey colour	Sq.M.	495.00
	(b) Red/ chocolate/ fawn yellow colour	Sq.M.	560.00
	(c) White/ pink/ green/ cream yellow colour	Sq.M.	618.00
10	Providing and laying approved quality pre-cast chequered cement relief tiles 25 mm thick in flooring, laid on 25 to 40 mm thick cement mortar (1:6) bedding and jointed with neat cement slurry with pigment to match the shade of the tiles and polishing in three coats etc. complete as directed.		
	(a) Grey colour	Sq.M.	502.00
	(b) Red/ chocolate/ fawn yellow colour	Sq.M.	553.00
	(c) White/ pink/ green/ cream yellow colour	Sq.M.	571.00
11	Providing & laying pre-cast fully chequered cement tiles with curved nosing in treads of steps laid on 25 to 40 mm thick (1:3) cement mortar bedding, and jointed with neat cement slurry with pigment to match the shade of the tiles and polishing in three coats etc. complete as directed.		
	(a) Grey colour	Sq.M.	528.00
	(b) Red/ chocolate/ fawn yellow colour	Sq.M.	580.00
	(c) White/ pink/ green/ cream yellow colour	Sq.M.	598.00
12	Providing and laying pre-cast terrazzo (marble mosaic) tiles in flooring 20 mm thick with marble chips of size upto 6 mm, laid on 25 to 40 mm thick cement mortar (1:6) bedding & jointed with neat cement slurry with pigment to match the shade of the tiles and polishing in three coats etc. complete as directed.		
	(a) Grey colour	Sq.M.	641.00
	(b) Red/ chocolate/ fawn yellow colour	Sq.M.	716.00
	(c) White/ pink/ green/ cream yellow colour	Sq.M.	746.00
13	Extra over rate for Item Nos.10(a), (b) & (c) above if marble chips are of sizes over 6 mm but upto 10 mm.	Sq.M.	36.00
14	Providing and laying fully chequered pre-cast terrazzo tread pieces 20-25 mm thick in steps, with marble chips of size upto 6 mm, laid on 25 to 40mm thick cement mortar (1:3) bedding and jointed with neat cement slurry with pigment to match the shade of the tiles and polishing in three coats etc. complete as directed.		
	(a) Grey colour	Sq.M.	696.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
	(b) Red/ chocolate/ fawn yellow colour	Sq.M.	776.00
	(c) White/ pink/ green/ cream yellow colour	Sq.M.	805.00
15	Providing and laying pre-cast heavy duty tiles 25 mm thick, laid on 25 to 40 mm thick cement mortar (1:3) bedding, jointed with neat cement slurry with pigment to match the shade of the tiles and polishing in three coats etc. complete as directed.		
	(a) Grey colour	Sq.M.	650.00
	(b) Red/ chocolate/ fawn yellow colour	Sq.M.	748.00
	(c) White/ pink/ green/ cream yellow colour	Sq.M.	837.00
16	Providing and fixing machine cut and machine polished Kota stone 22 to 40 mm thick in flooring, laid on 25 to 40 mm thick cement mortar (1:6) bedding, jointed with neat cement slurry and polishing in three coats etc. complete as directed.	Sq.M.	811.00
17	Providing and fixing machine cut and machine polished Kota stone 22 to 40 mm thick in treads of steps with rounded nosing and in single piece upto 1200 mm long and 300 mm wide including fixing in cement mortar (1:3) bedding of required thickness including polishing in three coats etc. complete as directed.	Sq.M.	902.00
18	Providing and fixing machine cut and machine polished Tandur stones 25mm average thick in flooring, on 25 to 40 mm thick lime mortar (1:2) or in CM (1:3) bedding, jointed with neat cement slurry and polishing in three coats etc. complete as directed.	Sq.M.	743.00
19	Providing and fixing ceramic tiles of suitable size of approved brand in flooring on lime mortar (1:2) bedding of 25 to 40 mm thickness or in dado with 10 to 20 mm thick cement mortar (1:3) backing jointed with neat cement slurry with pigment to match the shade of the tiles and including polishing etc. complete as directed.	Sq.M.	798.00
20	Extra over rate for Item No.19 above for providing 1st quality marbonite tiles of H.R. Johnson instead of ceramic tiles.		
	(a) Classic series 600X600 mm size.	Sq.M.	651.00
	(b) Special marble series 600X600 mm size.	Sq.M.	252.00
	(c) Granite series 600X600 mm size.	Sq.M.	919.00
21	Extra over rate for Item No.19 above for providing marbonite tiles of H.R. Johnson 1st quality instead of ceramic tiles.		
	(a) Classic series 800X800 mm size.	Sq.M.	985.00
	(b) Special marble series 800X800 mm size.	Sq.M.	692.00
	(c) Granite series 800X800 mm size.	Sq.M.	1,357.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
22	Indian marble white with grey veins ('Adanga' variety) 16 to 20 mm thick in flooring in sizes 0.45X0.45 Mtr. on cement mortar bedding (1:6) 40 mm thick including filling the joints with white cement and polishing etc. complete as directed.	Sq.M.	2,062.00
23	Indian marble white with grey veins ('Adanga' variety) 16 to 20 mm thick in dado in pieces 0.45X0.45 Mtr. or bigger on C.M. (1:3) 12 mm thick backing with brass clips including filling joints with white cement and polishing etc. complete as directed.	Sq.M.	2,073.00
24	Extra over rate for Item No.23 above for using 16 to 20 mm thick marble slabs 2 Mtrs. long and having width of 0.6 Mtr. or more.	Sq.M.	167.00
25	Extra over rate for Item No.23 above for using 16 to 20 mm thick marble slabs of size 2.4X0.9 Mtrs. or above.	Sq.M.	328.00
26	<u>In-situ Terrazzo Works</u> Providing and laying 40 mm thick in-situ terrazzo flooring consisting of underlayer of 32 mm thick (1:3) cement mortar and 5 mm thick top layer made of 7 parts of marble chips (1 to 3 mm size) and 4 parts of binder by volume, the binder consisting of 3 parts of cement and 1 part of marble powder by weight including providing aluminium strips 40X3 mm at 1.5 Mtrs. c/c as dividers and polishing in 3 coats - Grey coloured terrazzo etc. complete as directed.	Sq.M.	659.00
27	Extra over rate for Item No.26 above for using neutral colour cement in place of grey cement.	Sq.M.	46.00
28	Extra over rate for Item No.26 above for using colour cement in place of grey cement.	Sq.M.	92.00
29	Providing and laying 40 mm thick grey coloured in-situ terrazzo flooring consisting of underlayer of 30 mm thick cement concrete (1:2:4) and top layer 10 mm thick consisting of marble chips of size 7 to 10 mm laid in cement marble powder binder in the proportion of 2 parts of binder to 3 parts of chips by volume, the binder composed of cement and marble powder in the proportion of (3:1) by weight including providing aluminium strips 40X3 mm @1.5 Mtrs. c/c as dividers including curing and polishing in 3 coats - Grey coloured terrazzo etc. complete as directed.	Sq.M.	708.00
30	Extra over rate for Item No.29 above for using neutral colour cement in place of grey cement.	Sq.M.	56.00
31	Extra over rate for Item No.29 above for using light colour cement in place of grey cement.	Sq.M.	112.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
32	Providing and laying in-situ terrazzo 25 mm thick in grey cement in skirting and dado consisting of 15 mm thick backing of cement plaster mix and 10 mm thick top layer made of 3 parts of marble chips (7 to 10 mm size) and 2 parts of binder by volume, the binder consisting of 3 parts of cement and one part of marble powder by weight including providing 20X3 mm aluminium strips @1.5 Mtrs. c/c and polishing in 3 coats etc. complete as directed.	Sq.M.	605.00
33	Extra over rate for Item No.32 above for using neutral colour binder in place of grey cement.	Sq.M.	81.00
34	Extra over rate for Item No.32 above for using light colour binder in place of grey cement.	Sq.M.	81.00
35	<u>Skirting and Dado</u> Providing and laying 1 tile (about 250 mm) high skirting with 20 mm thick pre-cast tiles laid on 10 to 12 mm thick C.M. (1:3) backing and jointed with neat cement slurry with pigment to match the shades of the tiles including polishing in 3 coats etc. complete as directed.		
	(a) Plain cement tiles		
	(i) Grey colour	Mtr.	153.00
	(ii) Red/ chocolate/ fawn yellow colour	Mtr.	170.00
	(iii) White/ pink/ green/ cream yellow colour	Mtr.	184.00
	(b) Plain cement relief tiles		
	(i) Grey colour	Mtr.	132.00
	(ii) Red/ chocolate/ fawn yellow colour	Mtr.	145.00
	(iii) White/ pink/ green/ cream yellow colour	Mtr.	145.00
	(c) Pre-cast terrazzo tiles using upto 6 mm thick marble chips		
	(i) Grey colour	Mtr.	190.00
	(ii) Red/ chocolate/ fawn yellow colour	Mtr.	210.00
	(iii) White/ pink/ green/ cream yellow colour	Mtr.	218.00
	(d) Pre-cast terrazzo tiles using upto 10 mm thick marble chips		
	(i) Grey colour	Mtr.	199.00
	(ii) Red/ chocolate/ fawn yellow colour	Mtr.	219.00
	(iii) White/ pink/ green/ cream yellow colour	Mtr.	227.00
36	Extra over rates for respective items of plain tiling work in flooring for carrying out tiling work in dado.	Sq.M.	90.00
37	Extra over rates for the respective items of pre-cast terrazzo tiles in flooring for carrying out tiling work in dado.	Sq.M.	90.00
38	Providing and laying 20mm average thick tandur stone skirting/ dado with 10 to 12 mm thick cement mortar (1:3) backing and jointed with neat cement slurry with pigment to match the shade of the stone including polishing in 3 coats etc. complete as directed.	Sq.M.	940.00

VIII - Floor Finishes

Sr. No.	Item Description	Unit	Rate in ₹
39	Providing and laying 20mm average thick kota stone skirting/ dado with 10 to 12 mm thick cement mortar (1:3) backing - do - - do - as in Item No.36 above.	Sq.M.	1,047.00
40	Providing & fixing 30 mm average thick machine cut and machine polished kaddapa slab for kitchen platform, sink, shelves etc. including ledges, making holes for drainage pipe and gas entry pipes in cement mortar (1:3) bedding, jointed with neat cement slurry etc. complete as directed.	Sq.M.	602.00
41	Removing the existing vinyl flooring cleaning the surface as directed etc. complete as directed.	Sq.M.	50.00
42	Providing & fixing PVC vinyl tiles/ flooring of approved quality & colour 3 mm thick in flooring and skirting with suitable adhesive etc. complete as directed by Engineer-in-charge.	Sq.M.	493.00
43	Providing and fixing 75 mm or nearest available size wide ceramic decorative beading patti in thick cement slurry etc. complete as directed.	Mtr.	150.00

IX - Pointing & Plastering

Sr. No.	Item Description	Unit	Rate in ₹
1	(a) Cement and plaster (1:3) 10 mm thick thick internally upto floor two level to concrete surfaces including roughening the surfaces and finishing the plaster smooth with cement or neeru as directed etc. complete.	Sq.M.	136.00
	(b) Extra over rate for Item No.1 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	6.00
2	(a) Cement and sand plaster (1:5) 20 mm thick internally upto floor two level to brick work and concrete surfaces including raking out joints of brick work to a depth of 20 mm and roughening concrete surfaces & finishing plaster smooth with cement or neeru as directed etc. complete.	Sq.M.	221.00
	(b) Extra over rate for Item No.2 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	7.00
3	(a) Cement and sand plaster (1:5) 20 mm thick internally upto floor two level, in dado including raking out joints to a depth of 20 mm, finished smooth with cement and red oxide (geru) as directed etc. complete.	Sq.M.	229.00
	(b) Extra over rate for Item No.3 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	7.00
4	Extra over rate for Item Nos.1, 2 & 3 for every additional floor height above floor two level.	per floor per Sq.M.	2.00
5	(a) Sand faced cement and sand plaster (1:3) 20 mm thick in 2 coats, externally upto a height of 10 Mtrs. above ground level including raking out mortar from joints of masonry to a depth of 20 mm and roughening the concrete surface inclusive of raised bands, architectural finishing, vatas wherever necessary including curing etc. complete as directed.	Sq.M.	232.00
	(b) Extra over rate for Item No.5 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	12.00
6	(a) Sand faced cement and sand plaster 20 mm thick in 2 coats upto a height of 10 Mtrs. above ground level, under layer 10 mm thick cement mortar (1:3) and top layer 10 mm thick consisting of cement and red oxide mix and sand (1:3), as specified including curing as directed etc. complete.	Sq.M.	234.00

IX - Pointing & Plastering

Sr. No.	Item Description	Unit	Rate in ₹
	(b) Extra over rate for Item No.6 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	12.00
7	(a) Rough cast cement and sand plaster 25 mm thick in 2 coats externally upto a height of 10 Mtrs. above ground level, under layer 10 mm thick cement mortar (1:2) (1 cement : 2 sand) and top layer 15 mm cement plaster (1 cement : 1 sand : 1 stone grit or coarse sand 6 mm and down gauge), and cast rough as specified and directed including curing as directed etc. complete.	Sq.M.	310.00
	(b) Extra over rate for Item No.7 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	13.00
8	Extra over rate for Item Nos.5, 6 and 7 for every additional height of 5 Mtrs. or part thereof beyond 10 Mtrs.	Sq.M.	1.00
9	(a) Cement and sand guniting to a maximum thickness of 20 mm (to be done in a single operation) as directed etc. complete.	Sq.M.	712.00
	(b) Extra over rate for Item No.9 (a) above for adding admix guniting admixture Gunmixaid or equivalent @2 Kgs. Per bag of cement.	Sq.M.	17.00
10	Providing and applying instant neeru/ Birla White putty to the existing plastered surface by scrapping old paint neeru finish including application of bonding coat of cement paste as well as pre-wetting, scaffolding, curing etc. complete as directed.	Sq.M.	34.00
11	Struck pointing in cement mortar (1:3) to brick work upto a height of 10 Mtrs. above ground level as directed etc. complete.	Sq.M.	113.00
12	Tuck pointing in cement mortar (1:3) to stone masonry upto a height of 10 Mtrs. above ground level etc. complete as directed.	Sq.M.	137.00
13	Flush pointing in cement mortar (1:3) to stone work upto a height of 10 Mtrs. above ground level etc. complete as directed.	Sq.M.	80.00
14	Ruled pointing in cement mortar (1:3) to stone work upto a height of 10 Mtrs. above ground level as directed etc. complete.	Sq.M.	83.00
15	Flush pointing in cement mortar (1:3) to brick work upto a height of 10 Mtrs. above ground level as directed etc. complete.	Sq.M.	72.00
16	Ruled pointing in cement mortar (1:3) to brick work upto a height of 10 Mtrs. above ground level as directed etc. complete.	Sq.M.	77.00

IX - Pointing & Plastering

Sr. No.	Item Description	Unit	Rate in ₹
17	Tuck pointing in cement mortar (1:3) to brick work upto a height of 10 Mtrs. above ground level as directed etc. complete.	Sq.M.	119.00
18	Extra over the rate for Item Nos.11, 12, 13, 14, 15, 16 & 17 for struck/ tuck/ flush/ ruled pointing on walls on the outside only for every additional height of 5 Mtrs. or part thereof beyond 10 Mtrs. as directed etc. complete.	Sq.M.	0.70

X - White/ colour washing, Distemperring, Painting & Polishing

Sr. No.	Item Description	Unit	Rate in ₹
1	White wash with lime on new surfaces to give an even shade including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.		
	(a) Two coats	Sq.M.	7.00
	(b) over and above two coats for each subsequent coat	Sq.M.	4.00
2	Providing and applying one coat of ready mixed primer of approved manufacturer including thoroughly scraping, cleaning, making even and preparing the surface etc. as per manufacturer's specifications complete as directed.		
	(a) Cement primer	Sq.M.	21.00
	(b) Pink wood primer	Sq.M.	25.00
	(c) Zinc chromate (yellow) primer	Sq.M.	25.00
	(d) Exterior wall primer	Sq.M.	19.00
3	Two coats of oil bound distemper of approved brand/ manufacture and shade over a primer coat of approved brand/ manufacture on new surface to give an even shade including thoroughly scraping cleaning, making even and preparing the surface complete as directed.	Sq.M.	54.00
4	Two coats of waterproof cement paint of approved brand/ manufacture and shade on new wall surface to give an even shade including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.		
	(a) Using brands like Colourcem/ Nitcocem/ Durocem or other conforming to IS:5410/1969	Sq.M.	39.00
	(b) Using Snowcem plus brand or equivalent	Sq.M.	40.00
5	Two coats of synthetic enamel paint of approved brand/ manufacture and shade over a coat of ready mixed primer of approved brand/ manufacture on new concrete/ masonry/ plastered surface to give an even shade including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	73.00
6	Two coats of plastic emulsion paint of approved brand/ manufacture and shade over a coat of ready mixed primer of approved brand/ manufacture on new wall surface to give an even shade including scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	69.00
7	Two coats of synthetic flat paint of approved brand/ manufacture and shade over a coat of ready mixed primer of approved brand/ manufacture on new wall surface to give an even shade including scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	70.00

X - White/ colour washing, Distemperring, Painting & Polishing

Sr. No.	Item Description	Unit	Rate in ₹
8	Two coats of synthetic enamel paint of approved brand/ manufacture and shade over a coat of anti-corrosive zinc chromate primer (Yellow) of approved brand/ manufacture on new steel and other metal surfaces to give an even shade including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	81.00
9	Two coats of synthetic enamel paint of approved brand/ manufacture and shade over a coat of pink wood primer of approved brand/ manufacture on new wood and wood based surfaces to give an even shade including scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	82.00
10	Two coats of Aluminium paint of approved brand/ manufacture over a coat of anti-corrosive zinc chromate primer (Yellow) of approved brand/ manufacture on new steel and other metal surface to give an even shade including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	60.00
11	Polishing with French polish on new wood and wood based surfaces over a coat of wood filler to give an even shade and surface including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	115.00
12	Two coats of portland cement slurry wash on new surface to give a smooth bodied opaque finish including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	11.00
13	Two coats of portland cement slurry wash mixed with boiled linseed oil on steel work to give smooth bodied opaque finish including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	34.00
14	Two coats of road marking paint of approved brand (Berger/ Shalimar or equivalent) for slot marking lines, road breakers, pedestrian crossings, dashes, arrows, etc. including thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	66.00

X - White/ colour washing, Distemperring, Painting & Polishing

Sr. No.	Item Description	Unit	Rate in ₹
15	Remove oil paint from steel, wood and other surfaces with paint remover of approved brand and make the surface even complete as directed.	Sq.M.	38.00
16	Remove oil paint from steel and other surfaces with blow lamp and make the surface even complete as directed.	Sq.M.	43.00
17	Two coats of white wash with lime on previously white washed surface to give an even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	7.00
18	(a) Providing and applying two coats of weatherproof exterior emulsion of brand Apex/ Excel Acrylic/ Weather Coat/ Outshine Acrylilc manufactured by Asian/ Goodlass Nerolac/ Berger/ Nitco over a coat of exterior wall primer on wall surfaces to give an even shade including scrapping, cleaning, removing loose particles/ dust/ grease/ moss etc. with necessary scaffolding etc. complete as directed.	Sq.M.	89.00
	(b) Providing and applying two coats of weatherproof heat insulating, anti-carbonation acrylic emulsion paint Sunext-8 (diluted with water in the ratio 1 part Sunext-8 : 0.5 part water) or equivalent including primer made of Sunext-8 (diluted with water in the ratio 1 part Sunext-8 : 1 part water) or equivalent as per manufacturer's specifications on external wall surfaces to give an even shade including scrapping, cleaning, removing loose particles/ dust/ grease/ moss etc. with necessary scaffolding etc. complete as directed.	Sq.M.	80.00
19	Painting internally to the water tanks so as to make it waterproof with Tuffkote ... drinklon aluminium black paint etc. complete as directed.	Sq.M.	43.00
20	One coat of oil bound distemper of approved brand/ manufacture and shade on previously distempere wall surface to give an even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	21.00
	(a) For each subsequent coat	Sq.M.	17.00
21	Two coats of oil bound distemper of approved brand/ manufacture and shade -- do -- do -- as in Item No.20 above.	Sq.M.	38.00
22	Two coats of waterproof cement paint of approved brands/ manufacture and shade on previously cement painted wall surface to give an even shade including removing flaky and loose		

X - White/ colour washing, Distemperring, Painting & Polishing

Sr. No.	Item Description	Unit	Rate in ₹
	matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.		
	(a) Using brands like Colourcem/ Nitcocem/ Durocem or other conforming to IS:5410/1969	Sq.M.	37.00
	(b) Using Snowcem plus brand or equivalent	Sq.M.	39.00
23	One coat of synthetic enamel paint of approved brand/ manufacture and shade on previously painted concrete/ masonry surface to give an even shade including removing flaky, loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	32.00
24	Two coats of synthetic enamel paint of approved brand/ manufacture and shade -- do -- -- do -- as in Item No.23 above.	Sq.M.	35.00
25	One coat of plastic emulsion paint of approved brand/ manufacture and shade on previously painted surface to give an even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	31.00
	(a) For each subsequent coat	Sq.M.	20.00
26	Two coats of plastic emulsion paint of approved brand/ manufacture and shade -- do -- -- do -- as in Item No.25 above.	Sq.M.	51.00
27	One coat of synthetic flat paint of approved brand/ manufacture and shade on previously painted surface to give an even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	29.00
	(a) For each subsequent coat	Sq.M.	23.00
28	Two coats of synthetic flat paint of approved brand/ manufacture and shade -- do -- -- do -- as in Item No.27 above.	Sq.M.	52.00
29	One coat of synthetic enamel paint of approved brand/ manufacture and shade on previously painted steel and other metal surfaces to give an even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	29.00
	(a) For each subsequent coat	Sq.M.	24.00
30	Two coats of synthetic enamel paint of approved brand/ manufacture and shade -- do -- -- do -- as in Item No.29 above.	Sq.M.	53.00
31	One coat of synthetic enamel paint of approved brand/ manufacture and shade on previously painted wood and wood based surfaces to give an	Sq.M.	35.00

X - White/ colour washing, Distemping, Painting & Polishing

Sr. No.	Item Description	Unit	Rate in ₹
	even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.		
	(a) For each subsequent coat	Sq.M.	25.00
32	Two coats of synthetic enamel paint of approved brand/ manufacture and shade -- do -- -- do -- as in Item No.31 above.	Sq.M.	60.00
33	One coat of Alumunium paint of approved brand/ manufacture and shade on previously painted steel and other metal surfaces to give an even shade including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	22.00
34	Two coats of Aluminium paint of approved brand/ manufacture and shade - do -- -- do -- as in Item No.33 above.	Sq.M.	34.00
35	Polishing with French polish on previously polished wood and wood based surface over a coat of wood filler to give an even shade and surface including removing flaky and loose matter, thoroughly scraping, cleaning, making even and preparing the surface complete as directed.	Sq.M.	57.00
36	Polishing teak wood floors, wooden items etc. with polyurethane based clear wood paint or touch wood or equivalent in two coats including filling the joints with readymade filler compound of approved make and colour to give an even finish etc. complete as directed.	Sq.M.	231.00
37	Removing moss, other dirt particles from external stone masonry wall by brush and washing down with linear alkyl benzene detergent solution as directed by Engineer-in-charge complete.	Sq.M.	10.00
38	Applying a coat of 1% solution of polymethyl metal acrylate in toluene for preservation of external stone masonry wall as directed by Engineer-in-charge complete.	Sq.M.	25.00
39	Removing distemper from stone masonry wall including application of PVC paint remover and scrapping with wire brush and cleaning by water jet under pressure etc. as directed complete.	Sq.M.	70.00
40	Providing and applying two coats of water repellent Polycoat-TST or equivalent to external walls upto required height using necessary scaffolding, Jhulla etc. complete in all respect as directed.	Sq.M.	65.00
41	Providing sandtex matt, Nitcotex, tex matt or equivalent surface finish as per manufacturer's specifications in approved shades, colours in two	Sq.M.	76.00

X - White/ colour washing, Distemperring, Painting & Polishing

Sr. No.	Item Description	Unit	Rate in ₹
	coats including preparation of surface and scaffolding etc. complete as directed.		
42	Providing and applying 2 coats of velvet paint/ super acrylic emulsion paint of approved brand, quality and shade including thoroughly scrapping, cleaning, applying putty and primer coat and preparing surface to receive paint etc. complete as directed.	Sq.M.	104.00
43	Providing and applying ready to use acrylic polymeric non-shrink auto-suction putty Polyfill-AR or equivalent found on plaster surface and finish at any height/ level etc. complete including cleaning the surface with water, free from dust, dirt etc. After 24 hours inspect and if required as a result of auto-suction, provide another filling or the same by using spatulla or tin plate for crack filling evenly (Do not open the cracks in V' groove and do not apply putty by brush over the cracks).	Mtr.	31.00
44	Providing and applying textured coat Polytext finish or equivalent externally using flat trowel at a thickness of 1.5 to 2 mm and repeat trowel on the spread material in one direction only till desired finish is obtained. Remove the excess Polytext finish before material has set including cleaning the existing surface by scrubbing so as to remove dust, dirt, grim, oil etc. and wash the surface with clean jet of water etc. (Cure applied material for 12 to 16 hours prior to application of exterior paint) including scaffolding etc. complete.	Sq.M.	239.00

XI - Steel Work

Sr. No.	Item Description	Unit	Rate in ₹
1	Steel work in single sections including cutting, hoisting, fixing in position by welds or bolts & applying two coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate primer (yellow) to the entire steel work complete as directed.		
	(a) R.S.joists, flats, 'T's, angles, plates & channels etc.	qntl.	4,527.00
	(b) Unserviceable rail weighing 75 lbs/yard	Mtr.	351.00
2	Steel work rivetted in built-up sections, trusses & frame work including cutting, hoisting, fixing in position by welds or bolts & applying two coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate primer (yellow) to the entire steel work complete as directed.	qntl.	5,223.00
3	Steel work bolted in built-up sections -- do -- -- do -- as in Item No.2 above.	qntl.	5,055.00
4	Steel work welded in built-up sections, trusses & frame work including cutting, hoisting, fixing in position & applying two coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate primer (yellow) to the entire steel work etc. complete as directed.	qntl.	5,080.00
5	Providing and fixing m.s. ornamental grill of approved design, weighing from 15 to 20 Kgs. per Sq.M. with necessary hold-fasts complete with 2 coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate (yellow) metal primer complete as directed.	Sq.M.	1,265.00
6	-- do -- -- do -- weighing from 20 to 25 Kgs. per Sq.M. -- do -- -- do -- as in Item No.5 above.	Sq.M.	1,596.00
7	-- do -- -- do -- weighing from 25 to 30 Kgs. per Sq.M. -- do -- -- do -- as in Item No.5 above.	Sq.M.	1,931.00
8	Providing & fixing in position collapsible steel gates consisting of vertical channels 'C' type of size 18X9X3 mm thick, cross m.s. flats of size 18X5 mm, bottom runner 'E' type having web of 40X12 mm, and flange of 40X6 mm and the top runner of size 40X12 mm including bolts, nuts, rivets locking arrangements, rollers, channels, stoppers, handles, fixing in position the bottom guide channel in the flooring in cement and top as per the existing pattern etc., the distance between two vertical channels when the door is closed not to be more than 100 mm including applying two coats of synthetic enamel paint over a coat of anti-corrosive zinc chromate (yellow) primer of approved quality and make etc. complete as directed (work to be carried out as per IS:10521 of 1983 unless otherwise specified).	Sq.M.	3,446.00

XI - Steel Work

Sr. No.	Item Description	Unit	Rate in ₹
9	Providing & fixing steel rolling shutters of 20 guage thickness & of approved make complete with side channels, locking arrangements etc. including two coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate (yellow) primer complete as directed.	Sq.M.	2,371.00
10	Supplying, fabricating, hoisting & fixing in position double leaf sliding doors comprising of steel angles, plates, door guides, handles, locking arrangements, peep hole etc. including two coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate (yellow) primer to the steel work complete as directed (mechanical gear will be paid separately).	qntl.	5,825.00
11	Providing and fixing steel glazed doors/ windows/ ventilators of standard rolled section including providing and fixing glass panels with special window putty and oxidised brass fixtures and fastenings including applying two coats of approved synthetic enamel paint over a coat of anti-corrosive zinc chromate (yellow) primer complete as directed.	Sq.M.	2,174.00
12	Providing and fixing in position m.s. galvanised split bolts with two nuts and washers for fixing structural steel members with RCC members complete as directed.		
	(a) 20 mm dia. & 150 mm long	Each	60.00
	(b) 16 mm dia. & 125 mm long	Each	37.00
	(c) 12 mm dia. & 100 mm long	Each	27.00
13	Collecting 75 lbs/yard rails from various yards, cutting the same as per requirement and welding if any for making grating, rail guard etc. with one coat of anti-corrosive zinc chromate (yellow) primer and two coats of approved synthetic enamel paint etc. complete as directed (Payment shall be made for actual length of newly fixed rail brought from MbPT yard).	Mtr.	290.00
14	Collecting 90 lbs/yard rails from various yards, cutting the same as per requirement and welding if any for making grating, rail guard etc. with one coat of anti-corrosive zinc chromate (yellow) primer and two coats of approved synthetic enamel paint etc. complete as directed (Payment shall be made for actual length of newly fixed rail brought from MbPT yard).	Mtr.	345.00
15	Removing existing m.s. grill carefully and lowering the same upto ground and re-fixing the same after completing repairs to structure if any, etc. complete as directed.	Sq.M.	132.00

XI - Steel Work

Sr. No.	Item Description	Unit	Rate in ₹
16	Repairing and re-fixing the existing steel work of any section including welding, cutting fixing in position by welds and applying one coat of anti-corrosive zinc chromate (yellow) primer and two coats of synthetic enamel paint to entire steel work etc. complete as directed.	qntl.	997.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing 2nd class teak wood work in trusses, purlins, rafters, posts and the like, wrought, framed, hoisted and fixed in position including necessary m.s. clamps, bolts & nuts, etc. complete as directed.	Cu.M.	75,072.00
2	Extra over rate for Item No.1 above for painting with two coats of approved synthetic enamel paint over a coat of wood primer complete as directed.	Cu.M.	5,104.00
3	Providing 2nd class teak wood in frames of doors, windows etc. wrought, framed and fixed in position including m.s. hold-fasts, coal tarring the surfaces coming in contact with masonry and concrete etc. complete as directed.	Cu.M.	51,239.00
4	Extra over rate for Item No.3 above for polishing with French polish to the exposed surfaces to give an even surface and shade complete as directed.	Cu.M.	6,221.00
5	Extra over rate for Item No.3 above for painting with two coats of approved synthetic enamel paint over a coat of wood primer complete as directed.	Cu.M.	4,452.00
6	Providing and fixing single leaf door shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails, including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,828.00
7	Providing and fixing single leaf door shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails and partly glazed with 4 mm thick glass panels, panels in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,786.00
8	Providing and fixing single leaf door shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully panelled with 2 panels of particle board 12 mm thick in single pieces fixed in grooves in the styles and rails and with 2nd class teak wood decorative beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,584.00
9	Providing and fixing single leaf door shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in	Sq.M.	1,650.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
	the styles and rails and partly panelled with asbestos cement sheets 6 mm thick in single pieces fixed with 2nd class teak wood beading, including oxidised iron hinges and galvanised screws etc. complete as directed.		
10	Providing and fixing single leaf door shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails and louvered with 2nd class teak wood louvers 12 mm thick in single pieces fixed with 2nd class teak wood beading in inclined grooves including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,682.00
11	Providing and fixing single leaf door shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly panelled with 2 panels of particle board 12 mm thick in single pieces fixed in grooves in the styles and rails and with 2nd class teak wood decorative beading and partly glazed with 4 mm thick glass panels in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,699.00
12	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	2,006.00
13	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails and partly glazed with 4 mm thick glass panels in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,829.00
14	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully panelled with two panels of particle board 12 mm thick in single pieces fixed in grooves in the styles and rails and	Sq.M.	1,633.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
	with 2nd class teak wood decorative beading including oxidised iron hinges and galvanised screws etc. complete as directed.		
15	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly panelled with two panels of particle board 12 mm thick in single pieces fixed in grooves in the styles and rails and with 2nd class teak wood decorative beading and partly glazed with 4 mm thick glass panels in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,642.00
16	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully glazed with 4 mm thick glass panels in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,652.00
17	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully louvered with 2nd class teak wood louveres 12 mm thick in single pieces fixed with 2nd class teak wood beading in inclined grooves including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,826.00
18	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails and partly louvered with 2nd class teak wood louveres 12 mm thick in single pieces fixed with 2nd class teak wood beading in inclined grooves including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,646.00
19	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and partly wooden panelled with 2nd class teak wood panels 20 mm thick in single pieces with bevelled borders fixed in grooves in the styles and rails and partly panelled with asbestos cement sheets 6 mm thick in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,780.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
20	Providing and fixing double leaf window shutters with 2nd class teak wood rails and styles 30 mm thick in single pieces and fully panelled with 6 mm thick asbestos cement sheets in single pieces fixed with 2nd class teak wood beading including oxidised iron hinges and galvanised screws etc. complete as directed.	Sq.M.	1,553.00
21	Painting door and window shutters with 2 coats of synthetic enamel paint over a coat of pink wood primer to wooden surfaces and other compatible primer to other surfaces to -		
	(a) Shutters panelled with wooden panels and/ or wooden louveres and/ or asbestos cement sheets	Sq.M.	92.00
	(b) Shutters partly panelled with wooden panels and/ or wooden louveres and/ or asbestos cement sheets and partly glazed	Sq.M.	41.00
22	Polishing door and window shutters with french polish to give an even shade and surface to -		
	(a) Shutters panelled with wooden panels and/ or wooden louveres and/ or asbestos cement sheets	Sq.M.	129.00
	(b) Shutters partly panelled with wooden panels and/ or wooden louveres and/ or asbestos cement sheets and partly glazed	Sq.M.	58.00
23	Providing and fixing solid hard wood core flush door shutters with decorative teak veneer plywood 3 mm thick on each face including oxidised iron hinges and galvanised screws and applying French polish to give an even surface and shade etc. complete as directed.		
	(a) Shutters 40 mm thick	Sq.M.	1,966.00
	(b) Shutters 35 mm thick	Sq.M.	1,793.00
	(c) Shutters 30 mm thick	Sq.M.	1,727.00
	(d) Shutters 25 mm thick	Sq.M.	1,673.00
24	Providing and fixing solid hard wood core flush door shutters with 3 mm thick commercial plywood facing on each face including oxidised iron hinges and galvanised screws and applying two coats of approved synthetic enamel paint over a coat of pink wood primer etc. complete as directed.		
	(a) Shutters 40 mm thick	Sq.M.	1,174.00
	(b) Shutters 35 mm thick	Sq.M.	1,020.00
	(c) Shutters 30 mm thick	Sq.M.	962.00
	(d) Shutters 25 mm thick	Sq.M.	914.00
25	Providing and fixing solid hard wood core flush door shutters with 3 mm thick commercial plywood facing on one face & decorative teak veneer plywood on the other face including oxidised iron hinges and galvanised screws and applying two coats of synthetic enamel paint over a coat of		

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
	pink wood primer to commercial plywood and french polish to veneer plywood etc. complete as directed.		
	(a) Shutters 40 mm thick	Sq.M.	1,622.00
	(b) Shutters 35 mm thick	Sq.M.	1,448.00
	(c) Shutters 30 mm thick	Sq.M.	1,382.00
	(d) Shutters 25 mm thick	Sq.M.	1,328.00
26	Extra over rate for Item Nos.23, 24 and 25 above for providing rectangular or square glazed vision panels in door shutters.	Sq.M.	49.00
27	Extra over rate for Item Nos.23, 24 and 25 above for providing 2nd class teak wood louvered panel in the door shutters.	Sq.M.	85.00
28	Extra over rate for Item Nos.6 to 11 & 23 to 25 in doors and for Item Nos.12 to 20 in windows for providing aluminium hinges in lieu of oxidised iron hinges.	Sq.M.	86.00
29	Extra over rate for Item Nos.6 to 11 & 23 to 25 in doors and for Item Nos.12 to 20 in windows for providing oxidised brass hinges in lieu of oxidised iron hinges.	Sq.M.	176.00
30	Providing and fixing 30 mm thick teak wood battened and framed door shutters of 2nd class teak wood including oxidised iron hinges and galvanised screws and painting with two coats of synthetic enamel paint over a coat of pink wood primer etc. complete as directed.	Sq.M.	1,971.00
31	Providing and fixing 30 mm thick teak wood ledged, braced and battened door/ window shutters with necessary ledges & braces of 2nd class teak wood including oxidised iron hinges and galvanised screws and painting with two coats of approved synthetic enamel paint over a coat of wood primer etc. complete as directed.	Sq.M.	3,000.00
32	Providing & fixing 5mm thick ground glass strips 100 mm wide @75 mm centres into grooves cut inclined downwards into teak wood frame and fixing 2nd class teak wood beading including two coats of approved synthetic enamel paint over a coat of wood primer to teak wood beading etc. complete as directed (Note: Teak wood frame to be paid separately).	Sq.M.	757.00
33	Providing and fixing wire gauze shutters using 140 G.I.S. designated m.s. wire gauze including oxidised iron fixtures and fastenings and painting with two coats of synthetic enamel paint over a coat of primer etc. complete as directed.	Sq.M.	1,498.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
34	Providing & fixing door/ window shutters 30 mm thick of 2nd class teak wood with weldmesh/ XPM panels including beading of 2nd class teak wood, oxidised iron fixtures and fastenings and applying two coats of synthetic enamel paint over a coat of primer etc. complete as directed.	Sq.M.	1,440.00
35	Providing and fixing cover mouldings of 2nd class teak wood in doors/ window frames with necessary brass screws and painting with two coats of approved synthetic enamel paint over a coat of wood primer OR French polishing to give an even surface and shade as directed etc. complete.		
	(a) Size 50X12 mm	Mtr.	82.00
	(b) Size 40X12 mm	Mtr.	74.00
36	Providing and fixing pelmet made of 12 mm thick and 100 mm wide plywood with decorative teak veneer facing on one side including 15X4 mm second class teak wood lipping to the under side and French polishing to give an even surface and shade etc. complete as directed.		
	(a) with 16 mm dia. anodised aluminium curtain rod with couplings	Mtr.	471.00
	(b) with anodised aluminium channels, rollers and stop ends complete	Mtr.	480.00
37	Providing and fixing 2nd class teak wood 100X75 mm moulded handrail in staircase/ balcony, RCC pardi and French polishing to give an even surface and shade etc. complete as directed.	Mtr.	498.00
38	Providing and fixing shelves of 2nd class teak wood planks 25 mm thick supported on teak wood or m.s. brackets including two coats of approved synthetic enamel paint over a coat of primer etc. complete as directed (Rate is inclusive of cost of brackets).	Sq.M.	1,887.00
39	Providing, erecting and fixing in position partly panelled and partly glazed partition with 2nd class teak wood framework having corner posts of 75X75 mm size and other members of 75X38 mm size, 6 mm thick plywood panelling and 4 mm thick frosted/ figured glazing fixed with 2nd class teak wood beading including French polishing to give an even surface and shade etc. complete as directed (Note: Teak wood frame work will be paid separately and its area will be deducted from the measurement of this item. Rate includes cost of beading).	Sq.M.	745.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
40	Providing, erecting and fixing in position partition comprising of 2nd class teak wood frame work, brick on edge masonry in CM (1:4) with 12 mm thick plaster in CM (1:3) finished smooth for the lower part & glass panelled with plain/ frosted/ figured glass 4 mm thick with 2nd class teak wood battens for the upper part including 2 coats of oil painting or French polishing to give an even surface and shade etc. complete as directed (Note: Teak wood frame work will be paid separately and its area will be deducted from the measurement of this item. Rate includes cost of beading).	Sq.M.	685.00
41	Providing and fixing expanded metal in partition including fixing 2nd class teak wood beading complete and applying 2 coats of oil paint but exclusive of teak wood frame work etc. complete as directed (Measurement will be taken for clear opening between the frame work).	Sq.M.	529.00
42	Providing and fixing steel weld mesh B.R.C. with 2nd class teak wood beading complete including applying 2 coats of oil paint but exclusive of teak wood frame work etc. complete (Measurement will be taken for clear opening between the frame work).	Sq.M.	558.00
43	Providing and fixing bamboo mats including bamboo batten frame work.	Sq.M.	50.00
44	Providing bully for trusses 3 Mtrs. and longer in posts and frame work including 3 coats of approved synthetic enamel paint complete as directed.		
	(a) Non-teak bullies (100 mm mean dia.)	Mtr.	113.00
	(b) Non-teak bullies (150 mm mean dia.)	Mtr.	106.00
45	Providing and fixing bright brass single acting spring hinges with necessary brass screws complete as directed.		
	(a) 100 mm size hinge	Each	457.00
	(b) 150 mm size hinge	Each	531.00
46	Providing and fixing bright brass double acting spring hinges with necessary brass screws complete as directed.		
	(a) 100 mm size hinge	Each	506.00
	(b) 150 mm size hinge	Each	587.00
47	Providing and fixing night latch of 'Godrej' or equivalent make.	Each	645.00
48	Providing & fixing wide angle lens peep-holes to the door shutters.	Each	105.00
49	Providing & fixing hydraulic door closer of approved make conforming to I.S. specifications complete as directed.	Each	752.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
50	Providing and fixing 200 mm long brass letter plate to the door shutters.	Each	358.00
51	Providing & fixing cloth hangers comprising of pegs of approved size each with two hanging points fixed on the battens complete as directed.		
	(a) oxidised iron pegs	Each	25.00
	(b) anodized aluminium pegs	Each	28.00
	(c) anodized brass pegs	Each	48.00
52	Providing & fixing metallic door stopper.		
	(a) brass	Each	134.00
	(b) aluminium	Each	56.00
53	Providing and fixing the following fixtures and hardware to the wood work including required screws and other fastenings.		
	(a) Eyes and hooks -		
	(i) Iron oxidised - 100 mm	Each	12.00
	(ii) Iron oxidised - 150 mm	Each	13.00
	(iii) Iron oxidised - 200 mm	Each	14.00
	(iv) Brass oxidised - 100 mm	Each	32.00
	(v) Brass oxidised - 150 mm	Each	51.00
	(vi) Brass oxidised - 200 mm	Each	62.00
	(vii) Anodised aluminium - 100 mm	Each	21.00
	(viii) Anodised aluminium - 150 mm	Each	24.00
	(ix) Anodised aluminium - 200 mm	Each	26.00
	(b) Handles -		
	(i) Iron oxidised - 100 mm	Each	13.00
	(ii) Iron oxidised - 150 mm	Each	15.00
	(iii) Brass oxidised - 100 mm	Each	54.00
	(iv) Brass oxidised - 150 mm	Each	56.00
	(v) Brass oxidised - 200 mm	Each	64.00
	(vi) Anodised aluminium - 100 mm	Each	12.00
	(vii) Anodised aluminium - 150 mm	Each	19.00
	(viii) Anodised aluminium - 200 mm	Each	23.00
	(c) Aldrops -		
	(i) Iron oxidised - 200 mm	Each	101.00
	(ii) Iron oxidised - 250 mm	Each	106.00
	(iii) Iron oxidised - 300 mm	Each	112.00
	(iv) Brass oxidised - 200 mm	Each	416.00
	(v) Brass oxidised - 250 mm	Each	551.00
	(vi) Brass oxidised - 300 mm	Each	663.00
	(vii) Brass oxidised - 350 mm	Each	817.00
	(viii) Anodised aluminium - 200 mm	Each	121.00
	(ix) Anodised aluminium - 250 mm	Each	145.00
	(x) Anodised aluminium - 300 mm	Each	152.00
	(d) Tower bolts -		
	(i) Iron oxidised - 100 mm	Each	26.00
	(ii) Iron oxidised - 150 mm	Each	31.00
	(iii) Iron oxidised - 200 mm	Each	47.00
	(iv) Brass oxidised - 100 mm	Each	99.00
	(v) Brass oxidised - 150 mm	Each	140.00
	(vi) Brass oxidised - 200 mm	Each	171.00

XII - Wood Work

Sr. No.	Item Description	Unit	Rate in ₹
	(vii) Anodised aluminium - 100 mm	Each	44.00
	(viii) Anodised aluminium - 150 mm	Each	50.00
	(ix) Anodised aluminium - 200 mm	Each	54.00
	(e) Door latches -		
	(i) Iron oxidised - 200 mm	Each	84.00
	(ii) Iron oxidised - 250 mm	Each	92.00
	(iii) Iron oxidised - 300 mm	Each	106.00
	(iv) Brass oxidised - 200 mm	Each	164.00
	(v) Brass oxidised - 250 mm	Each	179.00
	(vi) Brass oxidised - 300 mm	Each	262.00
	(vii) Anodised aluminium - 200 mm	Each	99.00
	(viii) Anodised aluminium - 250 mm	Each	117.00
	(ix) Anodised aluminium - 300 mm	Each	129.00
54	Removing existing weather shade including brackets, aluminium/ GI sheets and re-fixing the same after plastering, drilling holes, nailing, fixing the old sheet with 'J' bolts including cement vata etc. complete as directed.	Each	215.00
55	Fixing existing weather shade with required fastening including scaffolding, hanging platform etc. complete as directed.	Each	83.00
56	Providing and fixing teak wood window shutter with 2nd class teak wood rails and styles 38 mm thick in single pieces and partly 30 mm thick wooden panelled, in single piece with bevelled borders fixed in grooves in style and rails, partly louvered 12 mm thick in single piece fixed with 2nd class teak wood beading in inclined grooves including oxidised iron fitting etc. complete as directed.	Sq.M.	2,275.00
57	Providing and fixing teak wood door shutter with 2nd class teak wood rails and styles 38 mm thick in single pieces and partly 20 mm thick wooden panelled, in single piece with bevelled borders fixed in grooves in style and rails including oxidised iron fittings etc. complete as directed.	Sq.M.	2,361.00
58	Providing and fixing door shutter of anodised aluminum section (20 mm series) using hardner panel of approved brand, design/ shade of thickness 4 mm using good quality rubble gasket including stainless steel hinges, metallic screws etc. complete as directed.	Sq.M.	1,811.00
59	Providing and applying 3 coats of fire retardent coating of Sunnoflame or equivalent over the wood work as per manufacturer's specifications etc. complete.	Sq.M.	327.00

XIII - AC & GI Roofing and cladding

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing, fabricating and fixing in position 2nd class Indian teak wood in purlins, rafters, barge boards, battens, eaves boards etc. in roof including 2 coats of approved synthetic enamel paint over a primer coat, scaffolding etc. complete in all respects as directed.	Cu.M.	100,052.00
2	Providing and laying mangalore tiles in the roof including painting the same with red ochre, making cement vatas wherever required complete as directed.	Sq.M.	270.00
3	Providing and fixing ridges and hips in mangalore type roof including setting in cement mortar (1:3), painting with red ochre, making cement vatas wherever required etc. complete as directed.	100 Nos.	5,670.00
4	Removing decayed wooden members from the roof, dismembering them and stacking on ground within a lead of 100 Mtrs. complete as directed.		
	(a) less than 40 Sq.Cm. cross sectionsl area of wooden member	Cu.M.	858.00
	(b) more than 40 Sq.Cm. cross sectional area of wooden member	Cu.M.	659.00
5	Removing carefully mangalore tiles, ridges and hips from the roof, stacking the serviceable materials properly on ground within a lead of 100 Mtrs., transporting the unserviceable materials to anywhere outside MbPT estate including sorting and cleaning of the materials complete as directed.	Sq.M.	54.00
6	Laying mangalore tiles including hoisting from the ground, painting with red ochre and providing cement vata wherever required complete as directed.	Sq.M.	93.00
7	Laying ridges and hips in mangalore type roof including hoisting from the ground, setting in cement mortar (1:3), painting in red ochre and providing cement vata wherever required complete as directed.	100 Nos.	875.00
8	Supplying and fixing asbestos cement corrugated sheets in roof with necessary fixtures and fastenings such as 8 mm dia. GI 'J' or 'L' hook bolts & nuts, bitumen and GI washers, cutting the sheets to required sizes, waterproofing the joints between the sheets and masonry/ concrete with cement concrete vatas and bituminous compound, applying 3 coats of white wash in lime to the underside of the sheets complete as directed (covered area of sheeting as fixed in position will be measured. No extra payment on account of laps shall be allowed. Rate shall include all fixtures and fastenings).	Sq.M.	269.00

XIII - AC & GI Roofing and cladding

Sr. No.	Item Description	Unit	Rate in ₹
9	-- do -- -- do -- semi corrugated sheets -- do -- -- do -- as in Item No.8 above.	Sq.M.	341.00
10	Supplying and fixing asbestos cement closed fitting adjustable ridges (in pairs) to suit the roof sheets complete with all necessary fixtures and fastenings such as 8 mm dia. GI 'J' or 'L' hook bolts and nuts, bitumen and GI washers, cutting to the required sizes, waterproofing the joints between ridges and masonry/ concrete with cement concrete vata and bituminous compound, applying 3 coats of white wash in lime to the underside of ridges etc. complete as directed (covered length of ridges as fixed in position will be measured. No extra on account of laps will be allowed. Rate shall include all fastenings and fixtures).	Mtr.	267.00
11	-- do -- -- do -- serrated adjustable ridges (in pairs) -- do -- -- do -- as in Item No.10 above.	Mtr.	216.00
12	-- do -- -- do -- unserrated adjustable ridges (in pairs) -- do -- -- do -- as in Item No.10 above.	Mtr.	236.00
13	-- do -- -- do -- northlight two piece adjustable ridges (in pairs) -- do -- -- do -- as in Item No.10 above.	Mtr.	456.00
14	Supplying and fixing asbestos cement one piece plain angular ridges to suit the roof sheets complete with all necessary fixtures and fastenings -- do -- -- do -- as in Item No.10 above.	Mtr.	235.00
15	Providing and fixing asbestos cement air extractors of Radial exhaust type 762 mm (30") dia. of 'Ramco' or of similar approved make on the roof with necessary fixtures & fastenings as per manufacturer's specifications including making the joints waterproof complete as directed.	Each	8,005.00
16	Providing and fixing asbestos cement cowl type ventilators of 'Everest Industries Ltd.' or of similar approved make on the roof as per manufacturer's specifications with all necessary fixtures & fastenings such as 8 mm dia. GI 'J' or 'L' hook bolts, nuts, bolts and GI washers including making the joints waterproof with waterproofing bituminous compound etc. complete as per drawing & as directed.	Each	221.00
17	-- do -- -- do -- roof lights (without glass) -- do -- -- do -- as in Item No.16 above.	Each	960.00
18	-- do -- -- do -- ridge finials -- do -- -- do -- as in Item No.16 above.	Each	56.00
19	-- do -- -- do -- apron flashing pieces -- do -- -- do -- as in Item No.16 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	182.00

XIII - AC & GI Roofing and cladding

Sr. No.	Item Description	Unit	Rate in ₹
20	-- do -- -- do -- eaves filler pieces -- do -- -- do -- as in Item No.16 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	133.00
21	-- do -- -- do -- Northlight and ventilator curves -- do -- -- do -- as in Item No.16 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	287.00
22	-- do -- -- do -- 'S' type louvers -- do -- -- do -- as in Item No.16 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	169.00
23	-- do -- -- do -- barge boards -- do -- -- do -- as in Item No.16 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	167.00
24	Providing and fixing 150 mm nominal size socketed half round gutters with bolts, nuts, bitumen washers etc., accessories such as drop ends, stop ends etc., flat iron brackets 40X3 mm at 1 Mtr. centre to centre including asbestos roofing compound in joints etc. complete as directed (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	264.00
25	-- do -- -- do -- 225 mm nominal size -- do -- -- do -- as in Item No.24 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	373.00
26	-- do -- -- do -- 300 mm nominal size -- do -- -- do -- as in Item No.24 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	389.00
27	Providing and fixing 400X125X250 mm nominal size AC valley gutters -- do -- -- do -- as in Item No.24 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	592.00
28	-- do -- -- do -- 450X125X150 mm nominal size -- do -- -- do -- as in Item No.24 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	554.00
29	-- do -- -- do -- 600X150X225 mm nominal size -- do -- -- do -- as in Item No.24 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	664.00
30	-- do -- -- do -- 900X200X225 mm nominal size -- do -- -- do -- as in Item No.24 above (covered length as fixed in position will be measured. No extra on account of laps will be allowed).	Mtr.	746.00

XIII - AC & GI Roofing and cladding

Sr. No.	Item Description	Unit	Rate in ₹
31	Providing and fixing 3 mm thick translucent corrugated fibre glass reinforced polyester sheeting to match with AC sheeting including fixing in sloping roof with 8 mm dia. GI 'J' or 'L' hook bolts, GI square nuts, 25 mm dia. X 1.59 mm thick flat washers, 25 mm dia. X 3.18 mm thick bitumen washers, necessary lapping etc. complete as directed (Covered area of sheeting as fixed in position will be measured. Rates shall include all fixtures and fastenings. Laps shall not be deducted).	Sq.M.	1,563.00
32	Re-fixing the existing GI plain sheets after making them straight, with new 'J' hook bolts, nuts, washers etc. as directed complete.	Sq.M.	44.00

XIV - Dismantling & Demolition

Sr. No.	Item Description	Unit	Rate in ₹
1	Demolishing cement concrete (1:3:6) or richer mix in superstructure including stacking of materials for disposal within 100 Mtrs. lead complete as directed.	Cu.M.	478.00
2	Demolishing cement concrete (1:4:8) or leaner mix including stacking of materials for disposal within 100 Mtrs. lead complete as directed.	Cu.M.	287.00
3	Demolishing RCC work including stacking of steel bars and unserviceable materials separately within a lead of 100 Mtrs. complete as directed.	Cu.M.	802.00
4	Cutting reinforcement bars in RCC work and stacking the same within a lead of 100 Mtrs. complete as directed (sectional area of RCC work will be measured and paid for).	Sq.M. of c/s area	237.00
5	Scraping, cleaning and straightening reinforcement bars obtained from demolition of RCC work and stacking at site within a lead of 100 Mtrs. complete as directed.	qntl.	177.00
6	Demolishing brick work in lime mortar including stacking of serviceable materials and unserviceable materials separately within a lead of 100 Mtrs. complete as directed.	Cu.M.	270.00
7	Demolishing brick work in cement mortar including stacking of serviceable material and unserviceable materials separately within a lead of 100 Mtrs. complete as directed.	Cu.M.	595.00
8	Removing mortar from bricks and cleaning the bricks.		
	(a) for brick work in lime mortar	Cu.M.	466.00
	(b) for brick work in cement mortar	Cu.M.	590.00
9	Demolishing stone rubble masonry in lime mortar including stacking of serviceable materials and unserviceable materials separately within a lead of 100 Mtrs. complete as directed.	Cu.M.	276.00
10	Demolishing stone rubble masonry in cement mortar including stacking of serviceable materials and unserviceable materials separately within a lead of 100 Mtrs. complete as directed.	Cu.M.	600.00
11	Dismantling wood work of sectional area of 40 Sq.Cm. or above in frames, trusses etc. upto a height of 5 Mtrs. including stacking the materials within a lead of 100 Mtrs. complete as directed.	Cu.M.	659.00
12	Extra over rate for Item No.11 for dismantling trusses, rafters, purlins etc. for every additional height of 1 Mtr. beyond 5 Mtrs.	Cu.M.	166.00
13	Dismantling wood work of area below 40 Sq.Cm. in trusses, frames, etc. and stacking the materials within a lead of 100 Mtrs. complete as directed.	Cu.M.	858.00

XIV - Dismantling & Demolition

Sr. No.	Item Description	Unit	Rate in ₹
14	Dismantling doors and windows (steel or wood) with shutters and frames and stacking within a lead of 100 Mtrs. complete as directed.		
	(a) of area 3 Sq.M. and below	Each	81.00
	(b) of area beyond 3 Sq.M.	Each	109.00
15	Dismantling steel work in single sections in R.S.J.s, channels, angles, 'T's and flats including dismembering and stacking within a lead of 100 Mtrs. complete as directed.	qntl.	86.00
16	Dismantling steel work in built-up sections in frame work and trusses of span upto 10 Mtrs. and height of 5 Mtrs. in R.S.Joists, angles, 'T's, flats & channels including all gusset plates, bolts, nuts, cutting rivets and weldings including dismembering and handing over all serviceable materials at sectional office or at MbPT store yard as directed complete.	qntl.	132.00
17	Extra over rate for Item No.16 for dismantling trusses, rafters, purlins etc. of steel for every additional span of 1 Mtr. beyond 10 Mtrs.	per qntl. per Mtr.	18.00
18	Extra over rate for Item No.16 for every additional height of 1 Mtr. beyond 5 Mtr.	per qntl. per Mtr.	17.00
19	Dismantling tiles in floors stacking the same for disposal within a lead of 100 Mtrs. complete as directed.		
	(a) for tile thickness upto 25 mm	Sq.M.	19.00
	(b) for tile thickness above 25 & upto 40mm	Sq.M.	28.00
20	Dismantling stone slab flooring laid in cement mortar and stacking of serviceable materials and unserviceable materials separately within a lead of 100 Mtrs. complete as directed.	Sq.M.	54.00
21	Dismantling GI sheet roofing including ridges, hips, valleys and gutters and stacking the materials within a lead of 100 Mtrs. complete as directed.	Sq.M.	35.00
22	Dismantling asbestos sheet roofing including ridges, hips, valleys and gutters and stacking the materials within a lead of 100 Mtrs. complete as directed.	Sq.M.	40.00
23	Dismantling CI or AC pipes with fittings (from 50 to 150 mm nominal bore) and clamps including stacking the materials within a lead of 100 Mtrs. complete as directed.	Mtr.	19.00
24	Breaking/ excavating cement concrete or RCC of any grade by using compressors and stacking the debris for disposal within a lead of 100 Mtrs. complete as directed.	Cu.M.	838.00
25	Demolishing hollow cement concrete block masonry including it's plaster and stacking the debris for disposal within a lead of 100 Mtrs. complete as directed.	Cu.M.	279.00

XIV - Dismantling & Demolition

Sr. No.	Item Description	Unit	Rate in ₹
26	Dismantling PVC pipes of any dia. with it's fittings and clamps including stacking the serviceable and unserviceable material separately within a lead of 100 Mtrs. complete as directed.	Mtr.	15.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
1	Excavation for road work upto required depth in any soil, rubble, aggregate, asphalt, concrete, khandki pavement etc. or any other strata met with including removal of rank vegetation, shoring, bailing out water, rolling and consolidating the formation by 8-10 tonnes capacity road roller including filling in with selected excavated materials wherever directed including stacking the surplus excavated material within a lead of 100 Mtrs. including cost of fencing, lighting & watching etc. complete as directed.	Cu.M.	308.00
2	Dressing the excavated surface to required grade and camber including making good the undulations, consolidating with 8 to 10 tonnes capacity road roller etc. complete as specified and as directed.	Sq.M.	2.22
3	Providing and laying approved quality rubble packing hand set in two layers as directed including filling the interstices with stone chips/ grit/ stone dust etc. watering, rolling and consolidating with 8 to 10 tonnes capacity road roller complete as specified and as directed.		
	(a) 250 mm thick	Sq.M.	235.00
	(b) 150 mm thick	Sq.M.	154.00
4	Laying only, rubble packing hand set including filling the interstices with stone chips/ grit/ stone dust etc. watering, rolling and consolidating with 8 to 10 tonnes capacity road roller complete as specified and as directed.		
	(a) 250 mm thick	Sq.M.	43.00
	(b) 150 mm thick	Sq.M.	31.00
5	Providing and laying 160 mm thick sub-base, made up of 40 mm to 90 mm size stone metal of approved quality on top of formation in two layers, each layer laid to 120 mm thickness and consolidated to 80 mm thickness including filling interstices with grit, stone dust, brick powder etc. and rolling with 8 to 10 tonnes capacity road roller complete as specified and as directed.	Sq.M.	245.00
6	Laying only, 160 mm thick sub-base using stone metal 40 mm to 90 mm size, obtained by breaking old stones available at site from excavation etc. including clearing the stone metal of dirt, dust etc., laying the cleaned stone metal on top of the formation in two layers, each layer laid to 120 mm thickness -- do -- do -- as in Item No.5 above.	Sq.M.	49.00
7	Providing and laying 240 mm thick sub-base, made up of 40 mm to 90 mm size stone metal of approved quality, on top of formation in two layers, each layer laid to 160 mm thickness and consolidated to 120 mm thickness including filling	Sq.M.	325.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	interstices with grit, stone dust, brick powder etc. and rolling with 8 to 10 tonnes capacity road roller complete as specified and as directed.		
8	Laying only, 240 mm thick sub-base using stone metal 40 mm to 90 mm size, obtained by breaking old stones available at site from excavation etc. including cleaning the stone metal of dirt, dust, etc., laying the cleaned stone metal on top of the formation in two layers each layer laid to 160 mm thickness and -- do -- -- do -- as in Item No.7 above.	Sq.M.	72.00
9	Providing and laying 360 mm thick metal sub-base made up of 40 mm to 90 mm size metal of approved quality on top of formation in three layers, each layer laid to 160 mm thickness and consolidated to 120 mm thickness including filling interstices with grit, stone dust, brick powder etc and rolling with 8 to 10 tonnes capacity road roller complete as specified and as directed.	Sq.M.	443.00
10	Laying only, 360 mm thick metal sub-base, using stone metal 40 mm to 90 mm size, obtained by breaking old stones available at site from excavation etc., including cleaning the stone metal of dirt, dust etc. laying the cleaned stone metal on the top of the formation in three layers, each layer laid to 160 mm thickness and -- do -- -- do -- as in Item No.9 above.	Sq.M.	72.00
11	Providing and laying 40 mm to 90 mm size stone metal of approved quality to required thicknesses on top of the formation in layers, each layer laid to thickness as directed but not exceeding 120 mm and consolidated to about 2/3rd thickness of the thickness of loose layer including filling the interstices with grit/ stone dust/ sand/ brick powder etc. and rolling with 8 to 10 tonnes capacity road roller complete as specified and as directed (Payment will be made for consolidated volume).	Cu.M.	1,356.00
12	Laying only, 40 mm to 90 mm size stone metal to required thicknesses using stone metal obtained by breaking stones available at site from excavation etc., including cleaning the stone metal of dust, dirt etc., laying on top of the formation in layers, each layer laid to thickness as directed -- do -- -- do -- as in Item No.11 above.	Cu.M.	314.00
13	Providing and laying waterbound macadam (WBM) layer of 80 mm consolidated thickness comprising of 40 to 63 mm size metal of approved quality laid to a depth of 120 mm and consolidated to thickness of 80 mm by means of 8 to 10 tonnes	Sq.M.	142.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	capacity road roller including watering, blending with sand, stone dust, grit, brick powder etc. complete as specified and as directed.		
14	Providing and laying water bound macadam (WBM) layer of 100 mm consolidated thickness comprising of 40 to 63 mm size metal of approved quality laid to a depth of 150 mm and consolidated to thickness of 100 mm by means of 8 to 10 tonnes capacity road roller including watering, blending with sand, stone dust, grit, brick powder etc. complete as specified and as directed.	Sq.M.	175.00
15	Providing and laying waterbound macadam (WBM) layer of 120 mm consolidated thickness comprising of 40 to 63 mm size metal of approved quality laid to a depth of 160 mm and consolidated to thickness of 120 mm by means of 8 to 10 tonnes capacity road roller including watering, blending with sand, stone dust, grit, brick powder etc. complete as specified and as directed.	Sq.M.	183.00
16	Providing and laying water bound macadam (WBM) of different consolidated thicknesses comprising of 40 to 63 mm size metal of approved quality laid to thickness as directed and consolidated by means of 8 to 10 tonnes capacity road roller to about 2/3rd of loose layer thickness including watering, blending with sand/ stone dust/ grit/ brick powder etc. complete as specified and as directed (Payment will be made for consolidated volume).	Cu.M.	1,747.00
17	Laying only, water bound macadam (WBM) of different consolidated thicknesses using 40 to 63 mm size metal obtained by breaking old stones available at site from excavation etc., including cleaning the stone metal of dust, dirt etc., laying to thickness as directed and consolidating to about 2/3rd thickness of loose layer thickness including watering -- do -- do -- as in Item No.16 above.	Cu.M.	575.00
18	Providing and spreading stone dust on metal layer for blendage including watering, rolling, removing the excess stone dust etc. complete as directed.	Sq.M.	47.00
19	Providing and laying full grout paving with 100 mm consolidated thick metal layer comprising of 40 to 63 mm size metal, laid to a thickness of 150 mm and consolidated by means of 8 to 10 tonnes capacity road roller and full grouting the same with hot bitumen (grade:60/70) at the rate of 7.5 Kgs./Sq.M., spreading stone chips on grouted surface at the rate of 1.83 Cu.M. per 100 Sq.M. and rolling with 8 to 10 tonnes capacity road roller, spreading hot bitumen (grade:60/70) at the	Sq.M.	541.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	rate of 1.75 Kgs./Sq.M., spreading stone grit at the rate of 1.22 Cu.M. per 100 Sq.M. and finally rolling with 8 to 10 tonnes capacity road roller etc. complete as specified and as directed.		
20	Providing seal coat over the existing road surface including cleaning the existing surface, spraying hot bitumen (grade:80/100) at the rate of 1.75 Kgs./Sq.M. at a temperature of 177 Degrees Celcius, binding the same with 6 mm size grit at the rate of 1.22 Cu.M. per 100 Sq.M. and finally rolling with road roller of 8 to 10 tonnes capacity etc. complete as specified and as directed.	Sq.M.	85.00
21	Providing and laying pre-mix seal coat consisting of 7% to 8% bitumen, 86% to 87% grit and 6% filler all by weight including cleaning the surface, applying tack coat at 0.50 Kg./Sq.M., rolling with 8 to 10 tonnes capacity road roller, finishing etc. complete to required grade and camber as directed.		
	(a) Bitumen grade:60/70 - 12 mm thick coat	Sq.M.	137.00
	(b) Bitumen grade:30/40 - 12 mm thick coat	Sq.M.	150.00
	(c) Bitumen grade:60/70	MT	4,757.00
	(d) Bitumen grade:30/40	MT	5,208.00
22	Providing and laying hot pre-mixed asphaltic macadam (Bitumen grade:60/70) with approved anti-stripping agent at the rate of 0.5% of the bitumen content by weight, in required thickness in regulating course and rolling with 8 to 10 tonnes capacity road roller including cleaning the surface, etc. complete as specified and as directed (Note: The quantity under this item shall be paid for in terms of weight of asphaltic macadam actually laid).	MT	2,626.00
23	Providing and laying hot pre-mixed asphaltic concrete wearing course (Bitumen grade:60/70) with approved anti-stripping agent at the rate of 0.50% of the bitumen content by weight, of required thickness as directed and rolling with 8 to 10 tonnes capacity road roller including cleaning the surface etc. complete as specified and as directed (Note: The quantity under this item shall be paid for in terms of weight of asphaltic concrete actually laid).	MT	3,801.00
24	Providing and laying 20 mm thick pre-mixed asphalt chip coat consisting of 72% 12 mm size stone chips, 24% grit and 4% bitumen all by weight including cleaning the surface, applying tack coat @0.73 to 0.98 Kg./Sq.M., rolling with 8 to 10 tonnes capacity road roller, finishing etc.		

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	complete to required grade and camber as directed.		
	(a) Bitumen grade:60/70 - 20 mm thick coat	Sq.M.	156.00
	(b) Bitumen grade:30/40 - 20 mm thick coat	Sq.M.	160.00
	(c) Bitumen grade:60/70	MT	3,545.00
	(d) Bitumen grade:30/40	MT	3,636.00
25	Providing and laying 50 mm thick mastic asphalt for road work including tack coat as per the specifications and as directed.	Sq.M.	1,281.00
26	Providing and laying 25 mm thick mastic asphalt for the flooring of galleries of the sheds and wherever directed including tack coat etc. complete as per specifications and as directed.	Sq.M.	701.00
27	Paving with RCC (1:1.5:3) or M20 grade concrete to required thickness as directed, laid to required slope and camber including vibrating, tampering, shuttering, finishing, curing and filling expansion joints with asphalt and sand etc. complete as specified and as directed but excluding reinforcement.	Cu.M.	4,374.00
28	Paving with plain cement concrete (1:2:4) or M15 grade to required thickness as directed, laid to required slope and camber including vibrating, tampering, shuttering, finishing, curing and filling expansion joints with asphalt and sand etc. complete as specified and as directed.	Cu.M.	3,905.00
29	Providing and laying plain cement concrete (1:3:6) or M10 grade as lean concrete in layers of required thickness below water mains, storm water drains, foundations etc. wherever directed including form work, vibrating, curing etc. complete as specified and as directed.	Cu.M.	3,387.00
30	Providing and laying plain cement concrete (1:1.5:3) or M20 grade in encasement of service pipes etc. and wherever directed including form work, vibrating, curing etc. complete as specified and as directed.	Cu.M.	4,285.00
31	Providing and laying cement concrete in road slab laid to required slope and camber including form work, mixing, compacting with power driven screed and needle vibrators including finishing the top by brooming, applying 2 coats of sodium silicate as specified and finishing, curing including providing grooves for contraction and construction joints etc. complete as directed.		
	(a) Concrete grade:M30	Cu.M.	4,418.00
	(b) Concrete grade:M40	Cu.M.	4,666.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
32	Providing and laying cement concrete in road slab laid to the required slope and camber as shown on the drawing including form work, mixing, compacting by power driven screed and needle vibrators including removing extra water rising on the surface by vacuum de-watering equipment similar to that manufactured by M/s.Jamshedji Construction Machinery Co. or equivalent finishing the top with brooms, applying 2 coats of sodium silicate as specified and finishing, curing including providing grooves for contraction/ construction joints etc. complete as directed.		
	(a) Concrete grade:M30	Cu.M.	4,726.00
	(b) Concrete grade:M40	Cu.M.	4,974.00
33	Providing and laying in position 75 micron polythene sheet including overlaps (to be not less than 100 mm) over the WBM complete as specified and as directed (Overlaps will not be paid for).	Sq.M.	25.00
34	Providing and fixing in position pre-moulded asphaltic filler 20 mm thick for expansion joints at 32 Mtrs. centres to the required depth and camber as directed including filling top 20 mm with air blown bitumen 10/20 penetration complete as directed.	Mtr.	209.00
35	Filling the joints of concrete slab with air blown bitumen 10/20 penetration including cleaning the joints with compressed air, brushing etc. complete as directed.	Mtr.	37.00
36	Machine cutting groove 10 mm wide and 60 mm deep in the concrete surface for construction/ contraction joints and longitudinal joints etc. complete as directed.	Mtr.	35.00
37	Providing and fixing in position high yield strength deformed bar reinforcement in RCC work including cutting, bending, placing in position, tack welding etc. complete in roads, drains, pre-cast slabs etc. as specified and as directed (No payment will be made for binding wire).	qntl.	4,045.00
38	Providing and fixing in position plain mild steel reinforcement including cutting, bending, placing in position, tack welding etc. complete in roads, drains, pre-cast slab etc. as specified and as directed (No payment will be made for binding wire).	qntl.	3,979.00
39	Providing and fixing in position plain m.s. dowel bars and tie bars wherever directed including cutting, bending, handling, straightening, treating with bond breaking agent for transverse, expansion and contraction joints and providing waterproof caps, filling the same with approved	qntl.	3,979.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	compressible materials for expansion joints etc. as directed (No extra payment will be made for applying bitumen bond breaking agent, providing waterproof caps and binding wire).		
40	Supplying, fabricating and fixing in position m.s. angles of 75X75X6 mm size in between the rails of railway track to maintain the correct distance gauge between the rails including welding, bolting and applying 3 coats of epoxy paint etc. complete as directed (Welds will not be measured for payment).	qntl.	4,527.00
41	Providing, fabricating and fixing in position 400X250X16 mm size bearing plates welded to the rails at 750 mm centres using suitable electrodes, fixing the plates in concrete by means of 4 Nos. of 16 mm dia. H.D. bolts as directed including painting with 3 coats of epoxy paint etc. complete (No separate payment will be made for welding. Bolts will be paid for separately).	qntl.	4,527.00
42	Providing and fixing 16 mm dia. H.D. bolts 350 mm long including nuts, check nuts etc. complete as shown on drawing or as directed.	Each	62.00
43	Providing during the currency of contract wooden barricade 1.5 Mtr. high consisting of 100 mm wooden bully posts fixed at 1.5 Mtr. centres and 2 Nos. continuous horizontal members of 75 mm dia. wooden bullies fixed to the vertical posts including excavation, embedding and fixing the vertical posts firmly in the ground or by providing artificial foundation viz. filled-in drums etc., flags and lanterns at each corner of the barrier, maintaining the barricade in proper condition including repairs to damaged members and removal of the barricade on completion of the work etc. as directed (The material of barricade shall remain the property of the contractor).	Mtr.	98.00
44	Dismantling the wooden barricade provided under Item No.43 above and re-erecting at another location/ site including shifting the materials, excavation, re-fixing, replacing any damaged wooden bullies etc., maintaining the barricade etc. complete as per Item No.43 above.	Mtr.	38.00
45	Providing and laying kerb stones 450 to 600 mm long, 150 mm wide and 375 mm deep, chiesel dressed on all exposed surfaces laid on c.c. (1:3:6) 300 mm wide x 150 mm thick bedding including setting in C.M. (1:3) and cement pointing (1:1), curing etc. complete as specified and as directed but excluding excavation.	Mtr.	371.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
46	Providing and laying only stone water tables 300 mm long x 375 mm wide, medium dressed on all exposed faces set in C.M.(1:3) and laid on 150 mm thick cement concrete (1:3:6) bedding including cement pointing (1:1), curing etc. complete as directed.	Mtr.	476.00
47	Providing and fixing in position pre-cast C.C. (1:2:4) or M-15 grade kerb blocks 450 mm long x 150 mm wide and 375 mm deep laid on C.C. (1:3:6) or M-10 grade 300 mm x 150 mm thick including setting in C.M. (1:3) and cement pointing (1:1), form work, curing etc. complete as specified and as directed but excluding excavation.	Mtr.	460.00
48	Providing and fixing in position pre-cast C.C. (1:2:4) or M-15 grade water tables 150 mm thick x 300 mm wide and of suitable length, fixed to required slope and grade in C.M. (1:3) and laid on 150 mm thick, C.C. (1:3:6) bedding including cement pointing (1:1), curing etc. complete as specified and as directed but excluding excavation.	Mtr.	410.00
49	Supplying and paving with set stones 150 to 225 mm long x 100 mm deep on 25 mm sand floating and set in cement mortar (1:3) including cement pointing and cement concrete (1:3:6) bedding 150 mm thick etc. complete as specified and as directed but excluding excavation.	Sq.M.	796.00
50	Removing asphaltic courses by milling machine in layers including transporting the removed materials outside the MbPT Estates complete as directed.		
	(a) For milling depth upto 55 mm	Sq.M.	62.00
	(b) For subsequent each 5 mm depth	Sq.M.	6.00
51	Removing and re-fixing in proper alignment and to required slope the existing water table in C.C. (1:3:6) 150 mm thick bedding including cement pointing the joints in C.M. (1:2), curing etc. complete as directed.	Mtr.	331.00
52	Providing and applying bitumen (grade:80/100) tack coat at the rate of 0.5 Kg./Sq.M. of bitumen before laying asphaltic macadam or asphaltic concrete including cleaning the surface etc. complete as directed.	Sq.M.	24.00
53	Providing and laying approved cement concrete interlocking paver blocks including bedding with sand of minimum thickness of 50 mm and filling of joints with fine sand etc complete as directed.		
	(a) 80 mm thick - multi-coloured	Sq.M.	694.00
	(b) 80 mm thick - grey coloured	Sq.M.	658.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
54	Providing and laying approved cement concrete interlocking paver blocks including bedding with sand of minimum thickness of 50 mm and filling of joints with fine sand etc complete as directed.		
	(a) 60 mm thick - multi-coloured	Sq.M.	641.00
	(b) 60 mm thick - grey coloured	Sq.M.	601.00
55	Supplying pre-mixed asphaltic chip coat at various places in MbPT estates consisting of 72% 12 mm size stone chips, 24% grit, 4% bitumen (bitumen grade:30/40) all by weight etc. complete as directed (<i>only supplying</i>).	MT	3,252.00
56	Supplying hot pre-mixed asphaltic macadam (bitumen grade:30/40) with approved anti-stripping agent at the rate of 0.50% of bitumen content by weight as directed at various places in MbPT estates etc. complete as directed (<i>only supplying</i>).	MT	2,723.00
57	Providing and laying hot pre-mixed asphaltic macadam (bitumen grade:30/40) with approved anti-stripping agent at the rate of 0.50% of bitumen content by weight, laid to the required thickness in regulating course and rolling with 8-10 tonnes capacity road roller, cleaning the road surface and laid in required grade and camber etc. complete as directed.	MT	2,802.00
58	Supplying hot pre-mixed asphaltic concrete (bitumen grade:30/40) with approved anti-stripping agent at the rate of 0.50% of bitumen content by weight as directed at various places in MbPT estates etc. complete as directed (<i>only supplying</i>).	MT	3,929.00
59	Providing and laying hot pre-mixed asphaltic concrete wearing course (bitumen grade:30/40) with approved anti-stripping agent at the rate of 0.50% of bitumen content by weight to the required thickness as directed and rolling with 8-10 tonnes capacity road roller including cleaning the surfaces and laid to required grade and camber etc. complete as directed.	MT	4,008.00
60	Fixing in position pre-cast cement concrete divider blocks, which are available at MbPT estate, on cement concrete (1:3:6) 450X150 mm thick including setting in CM (1:3) and cement pointing in CM (1:1), curing, excavation as required etc. complete as directed.	Mtr.	156.00
61	Providing and fixing in position pre-cast cement concrete M20 grade divider blocks (300X400X450 mm long) as directed, laid on cement concrete (1:3:6) 450X150 mm thick including setting in CM (1:3) and cement pointing in CM (1:1) including	Cu.M.	6,304.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	finishing smooth the surface and curing, boxing, compacting the divider blocks or kerb blocks/ water tables with vibrator including necessary excavaton etc. complete as specified as directed.		
62	Removing carefully the existing water tables/ kerb stones including cleaning of mortar and re-fixing the same to the required line and level over the concrete as directed and pointing with CM (1:3), curing etc. complete as directed.	Mtr.	50.00
63	Removing carefully existing concrete divider blocks, cleaning of old mortar etc., transporting and carefully stacking the same at site for reusing in the work including providing necessary security arrangement etc complete as directed.	Mtr.	35.00
64	Removing existing mastic asphalt of any thickness and stacking the debris within a lead of 100 Mtrs. complete as directed.	Sq.M.	68.00
65	Extra over rate for using vibratory road roller instead of 8 to 10 tonnes capacity road roller in any item of work.	Sq.M.	8.00
66	Excavation for road work manually/ using JCB/ mechanical equipment upto required depth in any type of strata such as soil, asphaltic pavement, khandki pavement, rubble, aggregate, etc. including shoring, bailing out water, rolling and compacting the formation by 8 to10 tonnes vibratory roller including filling in selected excavated material, segregating the useful material for reuse as directed & taking away surplus excavated material out side of MbPT Estate etc. complete as specified and as directed.	Cu.M.	375.00
67	Supplying and fixing 22 gauge GI corrugated sheets of size 10 X 3 feet to the wooden barricades provided under separate item or re-erected under separate item etc. complete as directed (GI sheets shall be the property of contractor and contractor shall make all security arrangement for protecting the same).	Mtr.	243.00
68	Dismantling the GI sheets barricade and re-erecting the same at another location at site including repairing the same as required, re-fixing, replacing any damaged elements as necessary and maintaining the barricade, etc. complete as directed.	Mtr.	23.00
69	Providing and laying sub-base comprising of 40 to 90 mm size stone metal of approved quality on top of the formation in layers, each layer laid to thickness as directed but not exceeding 120 mm and consolidating the same by means of 8 to 10 tonnes vibratory roller to about 2/3rd of loose	Cu.M.	1,564.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
	layer thickness including filling the interstices with grit, stone dust, sand, brick powder etc. complete as specified and directed.		
70	Laying only 40 to 90 mm size stone metal available from site during excavation, in sub-base on top of the formation in layers, each layer laid to thickness as directed but not exceeding 120 mm and consolidated to about 2/3rd thickness of the thickness of loose layer including filling the interstices with grit, stone dust, sand, brick powder etc. and rolling with 8 to 10 tonnes vibratory roller etc. complete as specified and directed.	Cu.M.	523.00
71	Providing and laying water bound macadam comprising of 40 to 63 mm size metal of approved quality laid to thickness as directed and consolidating by means of 8 to 10 tonnes vibratory roller to about 2/3rd of loose layer thickness including filling the interstices, watering, blending with sand, stone dust, grit, brick powder etc. complete as specified and as directed.	Cu.M.	2,091.00
72	Laying only water bound macadam of any consolidated thicknesses depending upon the site condition using available metal at site including breaking to the required sizes if required as approved and laying and consolidating by means of 8 to 10 tonnes vibratory roller to about 2/3rd of loose layer thickness including filling the interstices, watering, blending with sand, stone dust, grit, brick powder etc. complete as specified and as directed.	Cu.M.	919.00
73	Providing and laying M10 grade ready mix cement concrete procured from approved RMC plant in leveling course, bedding etc. of required thickness, transporting by transit mixer including form work, vibrating with plate vibrator, curing etc. complete as specified and as directed.	Cu.M.	3,964.00
74	Providing and laying M40 grade ready mix cement concrete procured from approved RMC plant in bays of cement concrete road pavement of required thickness, transported by transit mixer including all necessary form work, compacting by power driven screed, plate and needle vibrators including finishing the top with brooming, making vatas in cement mortar (1:10) in approximately 0.6 m x 0.6 m grid, curing by ponding water in vatas and applying the sides of slab with hot bitumen or black japan paint etc. complete as specified and as directed.	Cu.M.	5,440.00

XV - Road Work

Sr. No.	Item Description	Unit	Rate in ₹
75	Providing and fixing HDPE pipe of 40 mm dia. or nearest available size of approved make to fit around the dowel bars of 32 mm dia. at the end of expansion joint including applying grease to the pipes and dowel bars, providing glass wool or cotton waste caps etc. complete as specified and as directed.	Mtr.	114.00
76	Providing and laying M10 grade ready mix cement concrete procured from approved RMC plant, transported by transit mixer and placing in foundation of drain etc. including steel shuttering, compacting by power driven needle vibrator, leveling, curing with wet hessian cloth complete etc. as specified and as directed.	Cu.M.	3,975.00
77	Providing and fixing in position pre-cast cement concrete M20 grade double headed divider blocks (500X400X450mm), single headed divider blocks (300X400X450mm), kerb blocks (150X375X450mm), water table (300X200X450mm) including laying to required level on cement concrete (1:3:6) bedding as required or as directed, setting in cement mortar (1:3) and cement pointing in cement mortar (1:1), curing, etc. complete as specified or as directed.	Cu.M.	6,518.00
78	Construction of RCC water gully of size 750X750mm clear internal opening in plan and at required depth including excavation, 150mm rubble packing, 75mm thick cement concrete (1:3:6) in foundation, 150mm thick RCC (1:1.5:3) in bottom slab and 150mm thick RCC (1:1.5:3) in side wall including reinforcement, shuttering, finishing smooth the inside surface with neat cement coat, curing etc. complete as specified and as directed.	Each	6,184.00
79	Providing, fabricating and fixing in position watergully grating with steel frame made from structural steel members and grating made up of used rails (to be supplied by MbPT free of cost) for drain etc. complete as specified and as directed (Note: Rate shall be inclusive of transporting the old rails from MbPT Store i.e. any where in MbPT estate).	Each	4,372.00
80	Providing and laying M40 grade ready mix cement concrete procured from approved RMC plant in kerb beam, central beam, transported by transit mixer including all necessary form work, compacting by power driven needle vibrator including finishing the top with brooming, curing with wet hessian cloth etc. complete as specified and as directed.	Cu.M.	5,699.00

XVI - Sanitary fittings & Downtake pipes

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing and fixing in position 580 mm (23") long approved type, Indian style white glazed vitreous chinaware w.c. pan with raised white glazed foot rests, earthenware 'P' trap with vent connection to 100 mm (4") soil pipe outside by means of 100 mm (4") CI soil plug bend of required length and vent connected to anti-siphonage pipe by 32 mm dia. lead pipe upto the required level, 10 litres CI flushing cistern of approved type with approved 15 mm nominal size brass ball valve, polythene float, CI brackets, GI chain and handle, 15 mm (1/2") dia brass stop cock, 15 mm (1/2") dia GI over-flow pipe with brass mosquito-proof coupling, 32 mm (1.25") dia GI flushing pipe with bends etc. and necessary length of 32 mm (1.25") dia PVC pipe embedded in chase, 15 mm (1/2") dia. required length PVC pipe connection to flushing cistern, brick bat coba in bedding & backing for fixing w.c. pan including brick bat coba in entire sunken portion of the slab & painting with synthetic enamel paint in 3 coats to flushing cistern, pipes and fittings wherever required complete in all respects as directed (All pipes, fittings, cistern etc. to bear ISI mark or tested by MCGM).	Each	5,305.00
2	-- do -- -- do -- Indian style w.c. pan with CP flush valve instead of flushing cistern -- do -- -- do -- as in Item No.1 above (GI inlet to flush valve will be paid separately).	Each	4,795.00
3	-- do -- -- do -- 580 mm Orissa pattern -- do -- -- do -- as in Item No.1 above.	Each	5,755.00
4	Providing and fixing in position European type white glazed vitreous chinaware w.c. pan, having integral 'P' or 'S' trap with vent connection to 100 mm (4") soil pipe outside by means of 100 mm (4") CI soil plug bend of required length and vent pipe connected to anti-siphonage pipe by 32 mm dia. PVC pipe upto required level, 10 litres capacity PVC flushing cistern of approved type with approved 15 mm nominal size brass ball valve, polythene float, CI brackets, GI chain and handle, 15 mm (1/2") dia. brass stop cock, 15 mm (1/2") dia. GI over-flow pipe with brass mosquito-proof coupling, 32 mm (1.25") dia. GI flush pipe with bends etc. and necessary length of 32 mm (1.25") dia. PVC pipe, 15 mm (1/2") dia. GI pipe connection of required length to flushing cistern	Each	4,102.00

XVI - Sanitary fittings & Downtake pipes

Sr. No.	Item Description	Unit	Rate in ₹
	including painting with synthetic enamel paint in 3 coats to pipes and fittings wherever required complete in all respects (All pipes, fittings, cistern etc. to bear ISI mark or tested by MCGM).		
5	-- do -- -- do -- European type with low level chinaware flush tank etc. -- do -- -- do -- as in Item No.4 above.	Each	4,859.00
6	Providing & fixing bowl pattern white glazed vitreous chinaware urinal including PVC drain pipe (waste pipe) and connecting the urinal with waste pipe jointed with white lead mixed with chopped hemp etc. complete (waste pipe will be measured and paid separately. All fittings to bear ISI mark or to be MCGM tested).		
	(a) Flat back type of size 440X315X265 mm	Each	895.00
	(b) Angle back type 430X370X340 mm	Each	1,208.00
	(c) Large back or high back (semi stall) of size 610X400X380 mm	Each	2,411.00
7	Providing and fixing high level PVC flushing cistern with a pair of CI or mild steel or CP brackets complete with fittings such as GI inlet pipe connection and 32 mm dia GI flush pipe, syphonic arrangement, 15 mm nominal size PVC ball valve with polythene float, lever, pulling arrangement, unions & couplings for connections with inlet, outlet and over-flow pipe with brass mosquito-proof coupling etc. including making holes in walls and reinstating the same, three coats of synthetic enamel paint for the GI, pipes & fittings etc. complete (All fittings and pipes to bear ISI mark or tested by MCGM).		
	(a) 5 litres capacity	Each	1,994.00
	(b) 10 litres capacity	Each	1,968.00
8	Providing and fixing PVC automatic flushing cistern --do-- -- do -- as in Item No.7 above.		
	(a) 5 litres capacity	Each	1,287.00
	(b) 10 litres capacity	Each	1,386.00
9	Providing & fixing white glazed vitreous chinaware wash hand basin with holes for pillar taps, CI brackets painted in white, CI pipe inlet & bottle trap PVC drain pipe including making holes in walls and reinstating the same etc. complete as directed.		
	(a) Flat back wash basin 630X510 mm size	Each	3,116.00
	(b) -- do -- 550X400 mm size	Each	1,933.00
	(c) -- do -- 450X300 mm size	Each	1,785.00
	(d) Angle back wash basin 400X400 mm size	Each	1,807.00

XVI - Sanitary fittings & Downtake pipes

Sr. No.	Item Description	Unit	Rate in ₹
10	Providing & fixing white glazed vitreous chinaware laboratory sink 450X300X150 mm size with over-flow, 15 mm nominal size chromium plated bib tap, GI pipe connection, waste water connection, CI brackets painted in white including making holes and reinstating the same etc. complete as directed.	Each	2,025.00
11	Providing & fixing white glazed vitreous chinaware kitchen sink with over-flow, CP bib tap – do -- as in Item No.10 above.		
	(a) 610X450X250 mm size	Each	4,154.00
	(b) 610X450X200 mm size	Each	3,853.00
12	Providing & fixing aluminium drain boards 600X450 mm etc. complete as directed.	Each	581.00
13	Providing & fixing chromium plated brass towel rods with chromium plated brackets etc. complete as directed.		
	(a) 750X20 mm dia.	Each	280.00
	(b) 600X20 mm dia.	Each	253.00
14	-- do -- -- do -- stainless steel towel rods with brackets – do -- -- do -- as in Item No.13 above.		
	(a) 750X20 mm dia.	Each	164.00
	(b) 600X20 mm dia.	Each	155.00
15	-- do -- -- do -- anodised aluminium towel rods with brackets – do -- -- do -- as in Item No.13 above.		
	(a) 750X20 mm dia.	Each	126.00
	(b) 600X20 mm dia.	Each	118.00
16	Providing and fixing plate glass mirror 600X450 mm bevelled edged with oil tempered hard board back etc. complete as directed.	Each	547.00
17	Providing and fixing 600X120 mm glass shelf with chromium plated brass brackets etc. complete as directed.	Each	300.00
18	Providing and fixing PVC tooth brush & tumbler holder with brackets etc. complete as directed.	Each	69.00
19	Providing and fixing brass robe hook etc. complete as directed.	Each	65.00
20	Providing and fixing vitreous chinaware toilet paper holder etc. complete as directed.	Each	357.00
21	Providing and fixing plastic soap container with bracket etc. complete as directed.	Each	182.00
22	Providing and fixing plastic air purifier container with brackets etc. complete as directed.	Each	57.00
23	Providing and fixing white coloured plastic 'Commander' seats for European w.c. pan etc. complete as directed.		
	(a) solid seats	Each	448.00
	(b) hollow seats	Each	314.00

XVI - Sanitary fittings & Downtake pipes

Sr. No.	Item Description	Unit	Rate in ₹
24	Providing and fixing 4.5 to 5 mm (3/16") thick CI soil pipes conforming to IS:1729 and of approved make with all fittings such as off-sets, bends, 'T's, single or double or invert Y-junctions, adopters etc. fixed on air-seasoned second class 35 mm thick teak wood blocks embedded in walls, joints made of a gasket of hemp or spun yarn tightly packed and sealed with white lead putty and neatly finished with rich grout of cement and sand mortar (1:1) perfectly air and water tight including making holes in masonry walls and making good the same, removing coal tar and painting with two coats of approved synthetic enamel paint over a coat of zinc chromate (yellow) primer etc. complete as directed.		
	(a) 100 mm dia.	Mtr.	1,302.00
	(b) 75 mm dia.	Mtr.	1,115.00
25	Providing and fixing 3 mm (1/8") thick CI rain water pipes – do -- -- do -- as in Item No.23 complete as directed with a shoe at bottom.		
	(a) 150 mm nominal dia.	Mtr.	1,135.00
	(b) 100 mm nominal dia.	Mtr.	665.00
26	Providing and fixing AC cowl etc. complete as directed.		
	(a) 101.6 mm dia.	Each	51.00
	(b) 76.2 mm dia.	Each	42.00
	(c) 63.5 mm dia.	Each	36.00
	(d) 50.8 mm dia.	Each	32.00
27	Providing and laying CI socket and spigot pipes from house drainage including lead caulked joint etc. complete as directed.		
	(a) 100 mm nominal dia.	Mtr.	762.00
	(b) 150 mm nominal dia.	Mtr.	1,318.00
28	Providing & fixing AC pipe with necessary fitting as per Item No.23 above.		
	(a) 101.6 mm dia.	Mtr.	225.00
	(b) 76.2 mm dia.	Mtr.	173.00
	(c) 63.5 mm dia.	Mtr.	144.00
	(d) 50.8 mm dia.	Mtr.	122.00
29	Providing and fixing 80 mm (3") dia. CI nahani trap with 125 mm (5") CI perforated grating including making holes in walls, beams etc. and cement grouting (1:1), making good the damaged portion, finishing etc. complete as directed.	Each	418.00
30	Providing and fixing 80 mm (3") dia. CI nahani trap with 125 mm (5") dia. perforated brass chromium plated grating including making holes in walls, beams etc. and cement grouting (1:1), making good the damaged portion, finishing etc. complete as directed.	Each	404.00

XVI - Sanitary fittings & Downtake pipes

Sr. No.	Item Description	Unit	Rate in ₹
31	Providing and fixing 150 mm (6") dia. CI circular gratings with bars spaced at approved centres including cement grouting in C.M.(1:1), finishing etc. complete as directed.	Each	201.00
32	Providing and fixing PVC pipes of required dia. of 'Supreme'/ 'Prince'/ 'Kisan' or of approved manufacture/ brand of good quality including fittings such as 'Y' with door, bend with door, off-sets, PVC connectors fixed on walls with PVC clips, making holes in wall, making them good after connection, connecting the pipes with PVC solvent cement, rubber rings etc., testing the line etc. complete as directed.		
	(a) 110 mm dia. PVC soil pipes	Mtr.	190.00
	(b) 90 mm dia. PVC waste water pipes	Mtr.	171.00
33	Providing and fixing PVC rain water pipes of required dia. of 'Supreme'/ 'Prince'/ 'Kisan' or of approved manufacture/ brand of good quality including connection at terrace and shoe at the bottom, fixing the pipes with PVC clips, making holes in parapet making them good, connecting the pipes with solvent cement etc. complete as directed.		
	(a) 160 mm dia. rain water pipe	Mtr.	327.00
	(b) 110 mm dia. rain water pipe	Mtr.	146.00
34	Providing/ fixing 4" dia PVC nahani trap with PVC cover etc. complete as stated in Item No.29 above.	Each	355.00
35	(a) Providing and fixing PVC flushing tank of 10 litres capacity including all the fittings, symphonic arrangement, 15 mm dia ball valve with polythene float including connecting the same to the existing system etc. complete as directed.	Each	1,100.00
	(b) Providing and fixing PVC low level flushing tank of 10 litres capacity including all the fittings such as PVC inlet connector, 32 mm dia. PVC flush pipe, syphonic arrangement, 15 mm dia. PVC ball valve with polythene float, brackets, PVC over-flow pipes with mosquito-proof coupling etc. complete as directed.	Each	1,593.00
36	Removing carefully chokes from sanitary or water pipes fixed on the building upto any floor including providing and erecting necessary scaffolding/ jhulla/ working platform with safety measures etc. complete as directed.	Each	134.00
37	Replacing existing bend with new PVC plug bend including necessary scaffolding/ Jhulla etc. complete as directed.		
	(a) 110 mm dia.	Each	98.00

XVI - Sanitary fittings & Downtake pipes

Sr. No.	Item Description	Unit	Rate in ₹
	(b) 90 mm dia.	Each	86.00
	(c) 75 mm dia.	Each	63.00
38	Providing and fixing new PVC door cap to sanitary line at any floor level including scaffolding/ Jhulla etc. complete as directed.		
	(a) 110 mm dia.	Each	46.00
	(b) 90 mm dia.	Each	45.00
	(c) 75 mm dia.	Each	31.00
39	Providing and fixing new PVC cowl to sanitary line including scaffolding/ Jhulla etc. complete as directed.		
	(a) 110 mm dia.	Each	39.00
	(b) 90 mm dia.	Each	33.00
	(c) 75 mm dia.	Each	27.00
40	Providing and fixing 75 mm dia. PVC waste water line up to any floor level including scaffolding/ Jhulla etc. complete as directed.	Mtr.	134.00
41	Re-fixing the existing old PVC rain water pipes 110 mm dia. after plastering of wall, fixed on 2nd class 35 mm thick teak wood block/ PVC block embedded in wall, fixing pipes using new PVC clips and making holes if required etc. and reinstating the same etc. complete as directed.	Mtr.	27.00
42	Removing nahani trap carefully including making hole in brick wall and stacking the same at site etc. complete as directed.	Each	23.00
43	Providing and fixing white glazed vitreous China ware wash hand basin 630X551 mm size including all necessary fittings, taps, pipes, cocks, PVC connector etc. complete as directed.	Each	2,706.00
44	Providing and fixing PVC perforated grating for the nahani trap etc. complete as directed.	Each	62.00
45	Providing and fixing chromium plated perforated grating for the nahani trap etc. complete as directed.	Each	45.00

XVII - Water Supply Fittings & Branch Pipes

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing and fixing to structure, WI galvanised pipes 'B' class (medium) with approved m.s. clamps (fixed with GI nails) including all necessary pipe fittings such as elbows, 'T's, bends, reducers etc. including making holes in masonry, reinstating the holes, painting with 3 coats of approved synthetic enamel paint complete as directed (Pipes and fittings to be tested by MCGM or to bear ISI mark).	Each	5,305.00
	(a) 15 mm (1/2") nominal bore	Mtr.	111.00
	(b) 20 mm (3/4") nominal bore	Mtr.	133.00
	(c) 25 mm (1") nominal bore	Mtr.	189.00
	(d) 32 mm (1 1/4") nominal bore	Mtr.	224.00
	(e) 40 mm (1 1/2") nominal bore	Mtr.	270.00
	(f) 50 mm (2") nominal bore	Mtr.	340.00
	(g) 65 mm (2 1/2") nominal bore	Mtr.	440.00
	(h) 80 mm (3") nominal bore	Mtr.	550.00
2	Providing and fixing to structure, WI galvanised pipes 'C' class (heavy) with approved m.s. clamps (fixed with GI nails) -do -- -- do -- as in Item No.1 above.		
	(a) 15 mm (1/2") nominal bore	Mtr.	133.00
	(b) 20 mm (3/4") nominal bore	Mtr.	158.00
	(c) 25 mm (1") nominal bore	Mtr.	209.00
	(d) 32 mm (1 1/4") nominal bore	Mtr.	257.00
	(e) 40 mm (1 1/2") nominal bore	Mtr.	310.00
	(f) 50 mm (2") nominal bore	Mtr.	406.00
	(g) 65 mm (2 1/2") nominal bore	Mtr.	626.00
	(h) 80 mm (3") nominal bore	Mtr.	728.00
	(i) 100 mm (4") nominal bore	Mtr.	1,030.00
3	Providing and laying in trenches WI galvanised water pipes 'C' class (heavy) with all necessary pipe fittings such as elbows, 'T's, bends, reducers etc. excluding excavation and re-filling of trenches complete as directed (Pipes and fittings to be tested by MCGM or to bear ISI mark).		
	(a) 15 mm (1/2") nominal bore	Mtr.	87.00
	(b) 20 mm (3/4") nominal bore	Mtr.	107.00
	(c) 25 mm (1") nominal bore	Mtr.	151.00
	(d) 32 mm (1 1/4") nominal bore	Mtr.	186.00
	(e) 40 mm (1 1/2") nominal bore	Mtr.	223.00
	(f) 50 mm (2") nominal bore	Mtr.	295.00
	(g) 65 mm (2 1/2") nominal bore	Mtr.	478.00
	(h) 80 mm (3") nominal bore	Mtr.	548.00
4	Providing and fixing brass nickel plated bib taps of screw down pattern tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	119.00
	(b) 20 mm (3/4") nominal bore	Each	176.00

XVII - Water Supply Fittings & Branch Pipes

Sr. No.	Item Description	Unit	Rate in ₹
5	Providing and fixing brass stop cocks of screw down pattern tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	219.00
	(b) 20 mm (3/4") nominal bore	Each	466.00
	(c) 25 mm (1") nominal bore	Each	627.00
	(d) 32 mm (1 1/4") nominal bore	Each	1,121.00
	(e) 40 mm (1 1/2") nominal bore	Each	1,681.00
	(f) 50 mm (2") nominal bore	Each	2,829.00
6	Providing and fixing gun metal wheel valve gate type (Peet valve) tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	231.00
	(b) 20 mm (3/4") nominal bore	Each	337.00
	(c) 25 mm (1") nominal bore	Each	491.00
	(d) 32 mm (1 1/4") nominal bore	Each	627.00
	(e) 40 mm (1 1/2") nominal bore	Each	870.00
	(f) 50 mm (2") nominal bore	Each	1,096.00
	(g) 65 mm (2 1/2") nominal bore	Each	2,158.00
(h) 80 mm (3") nominal bore	Each	2,987.00	
7	Providing and fixing GI wheel valves gate type with screwed female ends or flanged ends tested by MCGM or bearing ISI mark complete as directed.		
	(a) 25 mm (1") nominal bore	Each	611.00
	(b) 32 mm (1 1/4") nominal bore	Each	1,045.00
	(c) 40 mm (1 1/2") nominal bore	Each	1,551.00
	(d) 50 mm (2") nominal bore	Each	1,832.00
	(e) 65 mm (2 1/2") nominal bore	Each	2,519.00
	(f) 80 mm (3") nominal bore	Each	3,207.00
8	Providing and fixing brass ball valves with copper ball float with all necessary fittings tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	244.00
	(b) 20 mm (3/4") nominal bore	Each	256.00
	(c) 25 mm (1") nominal bore	Each	308.00
	(d) 32 mm (1 1/4") nominal bore	Each	513.00
	(e) 40 mm (1 1/2") nominal bore	Each	638.00
	(f) 50 mm (2") nominal bore	Each	1,038.00
	(g) 65 mm (2 1/2") nominal bore	Each	1,695.00
9	Providing and fixing brass ball valves with polythene ball float with necessary fittings and tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	262.00
	(b) 20 mm (3/4") nominal bore	Each	348.00
	(c) 25 mm (1") nominal bore	Each	472.00
	(d) 40 mm (1 1/2") nominal bore	Each	881.00

XVII - Water Supply Fittings & Branch Pipes

Sr. No.	Item Description	Unit	Rate in ₹
10	Providing and fixing gun metal non-return valve with necessary fittings and tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore		
	(i) vertical	Each	207.00
	(ii) horizontal	Each	255.00
	(b) 20 mm (3/4") nominal bore		
	(i) vertical	Each	284.00
	(ii) horizontal	Each	384.00
	(c) 25 mm (1") nominal bore		
	(i) vertical	Each	392.00
	(ii) horizontal	Each	562.00
	(d) 32 mm (1 1/4") nominal bore		
	(i) vertical	Each	573.00
	(ii) horizontal	Each	725.00
	(e) 40 mm (1 1/2") nominal bore		
(i) vertical	Each	747.00	
(ii) horizontal	Each	1,227.00	
(f) 50 mm (2") nominal bore			
(i) vertical	Each	1,162.00	
(ii) horizontal	Each	1,648.00	
(g) 65 mm (2 1/2") nominal bore			
(i) vertical	Each	1,950.00	
(ii) horizontal	Each	2,844.00	
11	Providing and fixing gun metal ferrules tested by MCGM or bearing ISI mark including boring & tapping the main etc. complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	399.00
	(b) 20 mm (3/4") nominal bore	Each	541.00
	(c) 25 mm (1") nominal bore	Each	912.00
	(d) 32 mm (1 1/4") nominal bore	Each	1,340.00
	(e) 40 mm (1 1/2") nominal bore	Each	1,939.00
	(f) 50 mm (2") nominal bore	Each	2,852.00
12	Providing and fixing 15 mm (1/2") nominal bore chromium plated brass push taps tested by MCGM or bearing ISI mark complete as directed.	Each	199.00
13	Providing and fixing 15 mm (1/2") nominal bore chromium plated brass stop cocks tested by MCGM or bearing ISI mark complete as directed.	Each	219.00
14	Providing and fixing polythene bib taps complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	35.00
	(b) 20 mm (3/4") nominal bore	Each	59.00
15	Providing and fixing CI lift up waste preventive bib taps tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	144.00
	(b) 20 mm (3/4") nominal bore	Each	188.00

XVII - Water Supply Fittings & Branch Pipes

Sr. No.	Item Description	Unit	Rate in ₹
16	Providing and fixing CI chromium plated push type flush valve tested by MCGM or bearing ISI mark complete as directed.		
	(a) 25 mm (1") nominal bore	Each	572.00
	(b) 32 mm (1 1/4") nominal bore	Each	1,730.00
17	Providing and fixing chromium plated brass shower rose with 20 mm (3/4") or 15 mm (1/2") nominal bore inlet tested by MCGM or bearing ISI mark complete as directed.		
	(a) 125 mm (5") nominal dia.	Each	314.00
	(b) 150 mm (6") nominal dia.	Each	336.00
18	Providing and fixing chromium plated brass shower rose with ball and socket joint and 20 mm (3/4") or 15 mm (1/2") nominal bore inlet etc. complete as directed.		
	(a) 125 mm (5") nominal dia.	Each	576.00
	(b) 150 mm (6") nominal dia.	Each	595.00
19	Providing and fixing gun metal foot valve with brass strainer screwed end, tested by MCGM or bearing ISI mark complete as directed.		
	(a) 25 mm (1") nominal bore	Each	387.00
	(b) 32 mm (1 1/4") nominal bore	Each	494.00
	(c) 40 mm (1 1/2") nominal bore	Each	617.00
	(d) 50 mm (2") nominal bore	Each	870.00
	(e) 65 mm (2 1/2") nominal bore	Each	1,554.00
	(f) 80 mm (3") nominal bore	Each	1,954.00
20	Providing and fixing CI foot valve with flanged ends with metallic washer, tested by MCGM or bearing ISI mark complete as directed.		
	(a) 80 mm (3") nominal dia.	Each	3,619.00
	(b) 100 mm (4") nominal dia.	Each	5,225.00
21	Providing and fixing gun metal globe type hydrant 65 mm nominal bore outlet and 80 mm nominal bore flanged inlet with wheel and other accessories, tested by MCGM or bearing ISI mark complete as directed.	Each	5,008.00
22	Providing and fixing dial pressure gauges to measure 0 to 14 Kgs./Sq.Cm. (0 to 200 lbs/Sq.In.) tested by MCGM or bearing ISI mark complete as directed (calibrated in British and metric units).		
	(a) 100 mm (4") nominal dia.	Each	454.00
	(b) 150 mm (6") nominal dia.	Each	763.00
	(c) 250 mm (10") nominal dia.	Each	1,843.00
23	Providing and fixing light pattern CI road box tested by MCGM or bearing ISI mark with brick masonry chamber for stop cock etc. complete as directed.	Each	2,522.00

XVII - Water Supply Fittings & Branch Pipes

Sr. No.	Item Description	Unit	Rate in ₹
24	Providing and fixing spouts comprising of 25 mm (1") nominal bore 450 mm long GI pipe 'B' class (medium) & GI elbow including making hole in masonry/ concrete and reinstating the hole etc. complete as directed.	Each	103.00
25	Providing and fixing GI screwed flanges tested by MCGM or bearing ISI mark complete as directed.		
	(a) 25 mm (1") nominal bore	Each	172.00
	(b) 32 mm (1 1/4") nominal bore	Each	209.00
	(c) 40 mm (1 1/2") nominal bore	Each	261.00
	(d) 50 mm (2") nominal bore	Each	372.00
	(e) 65 mm (2 1/2") nominal bore	Each	448.00
	(f) 80 mm (3") nominal bore	Each	479.00
	(g) 100 mm (4") nominal bore	Each	542.00
26	Providing and fixing vent or over-flow GI pipe 1 Mtr. long with necessary fittings and brass mosquito-proof coupling tested by MCGM or bearing ISI mark complete as directed.		
	(a) 15 mm (1/2") nominal bore	Each	150.00
	(b) 20 mm (3/4") nominal bore	Each	171.00
	(c) 25 mm (1") nominal bore	Each	244.00
	(d) 32 mm (1 1/4") nominal bore	Each	395.00
	(e) 40 mm (1 1/2") nominal bore	Each	532.00
	(f) 50 mm (2") nominal bore	Each	771.00
	(g) 65 mm (2 1/2") nominal bore	Each	1,185.00
27	Providing and fixing CI over-flow pipes with mosquito-proof netting & m.s. flanges including painting etc. complete as directed.		
	(a) 80 mm (3") nominal bore	Each	1,687.00
	(b) 100 mm (4") nominal bore	Each	2,175.00
	(c) 150 mm (6") nominal bore	Each	2,902.00
28	Fixing 80 mm (3") dia. G I pipe, collecting from the store in the jurisdiction of Civil Engineering Dept, cutting the pipe as per requirement etc. including providing and fixing new ISI marked GI fittings such as 'T's, elbows, bends, etc. including making holes in masonry, reinstating the same, fixing with m.s. clamps with GI nails etc. complete as directed.	Mtr.	138.00
29	Providing and fixing UPVC/ ASTM pipes with its fittings as per manufacturer's instruction etc. complete as directed.		
	(a) 80 mm (3") nominal dia.	Mtr.	404.00
	(b) 65 mm (2 1/2") nominal dia.	Mtr.	316.00
	(c) 40 mm (1 1/2") nominal dia.	Mtr.	156.00
30	Providing and fixing 15 mm size brass chromium plated pillar tap heavy/ approved quality including making holes to wash basin/ removing existing pillar tap etc. complete as directed.	Each	365.00

XVII - Water Supply Fittings & Branch Pipes

Sr. No.	Item Description	Unit	Rate in ₹
31	Providing and fixing 15 mm dia. size nominal bore brass chromium plated 380 to 420 gms. screw down pattern bib tap tested by MCGM or bearing ISI mark, using new reducer and removing existing bib tap etc. complete as directed.	Each	196.00
32	Providing and fixing chromium plated waste coupling and PVC flexible pipe to wash basin or at kitchen sink etc. complete as directed.	Each	179.00

XVIII - CI Water Mains & Fittings

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing, lowering in trenches and assembling in line and level CI fresh water pipes Class LA as per IS with spigot and socket ends etc. complete as directed (Overlaps will not be paid).		
	(a) 80 mm nominal dia.	Mtr.	872.00
	(b) 100 mm nominal dia.	Mtr.	1,076.00
	(c) 125 mm nominal dia.	Mtr.	1,663.00
	(d) 150 mm nominal dia.	Mtr.	1,718.00
	(e) 200 mm nominal dia.	Mtr.	2,508.00
	(f) 250 mm nominal dia.	Mtr.	3,375.00
	(g) 300 mm nominal dia.	Mtr.	4,345.00
	(h) 350 mm nominal dia.	Mtr.	5,488.00
	(i) 400 mm nominal dia.	Mtr.	6,665.00
	(j) 450 mm nominal dia.	Mtr.	8,042.00
2	Providing, lowering in trenches and assembling in line and level CI fresh water pipes Class 'B' as per IS with flanged ends etc. complete as directed.		
	(a) 80 mm nominal dia.	Mtr.	1,693.00
	(b) 100 mm nominal dia.	Mtr.	2,142.00
	(c) 150 mm nominal dia.	Mtr.	3,501.00
	(d) 200 mm nominal dia.	Mtr.	5,029.00
	(e) 250 mm nominal dia.	Mtr.	6,806.00
	(f) 300 mm nominal dia.	Mtr.	8,786.00
3	Providing, lowering in trenches & assembling in line and level CI specials for fresh water pipeline etc. complete as directed.	qntl.	6,124.00
4	Jointing of CI pipes, specials etc. with spun yarn, molten lead including caulking etc. complete including testing of joints but excluding cost of pipe etc. complete as directed.		
	(a) 80 mm nominal dia.	Joint	341.00
	(b) 100 mm nominal dia.	Joint	403.00
	(c) 125 mm nominal dia.	Joint	511.00
	(d) 150 mm nominal dia.	Joint	611.00
	(e) 200 mm nominal dia.	Joint	866.00
	(f) 250 mm nominal dia.	Joint	1,057.00
	(g) 300 mm nominal dia.	Joint	1,256.00
	(h) 350 mm nominal dia.	Joint	1,424.00
	(i) 400 mm nominal dia.	Joint	1,681.00
	(j) 450 mm nominal dia.	Joint	2,275.00
5	Jointing of flanged CI pipes, flanged specials etc. with m.s. nut bolts, rubber insertion, packing etc. and testing joints but excluding cost of pipe etc. complete as directed.		
	(a) 80 mm nominal dia.	Joint	169.00
	(b) 100 mm nominal dia.	Joint	253.00
	(c) 150 mm nominal dia.	Joint	417.00
	(d) 200 mm nominal dia.	Joint	461.00
	(e) 250 mm nominal dia.	Joint	660.00
	(f) 300 mm nominal dia.	Joint	661.00

XVIII - CI Water Mains & Fittings

Sr. No.	Item Description	Unit	Rate in ₹
	(g) 350 mm nominal dia.	Joint	868.00
	(h) 400 mm nominal dia.	Joint	1,273.00
	(i) 450 mm nominal dia.	Joint	1,569.00
6	Providing, lowering in trenches and assembling CI sluice valve heavy quality with cap and flanged ends and bearing ISI mark or MCGM tested etc. complete as directed.		
	(a) 80 mm nominal dia.	Each	3,476.00
	(b) 100 mm nominal dia.	Each	5,084.00
	(c) 125 mm nominal dia.	Each	6,768.00
	(d) 150 mm nominal dia.	Each	7,549.00
	(e) 200 mm nominal dia.	Each	14,078.00
	(f) 250 mm nominal dia.	Each	18,273.00
	(g) 300 mm nominal dia.	Each	23,310.00
7	Providing, lowering in trenches and assembling CI sluice valve heavy quality with flanged ends, gear wheel arrangements and bearing ISI mark or MCGM tested etc complete as directed.		
	(a) 300 mm nominal dia.	Each	33,529.00
	(b) 350 mm nominal dia.	Each	47,289.00
	(c) 400 mm nominal dia.	Each	61,758.00
	(d) 450 mm nominal dia.	Each	77,507.00
8	Providing, lowering in trenches and assembling CI non-return valve heavy quality with flanged ends and bearing ISI mark or MCGM tested etc. complete as directed.		
	(a) 80 mm nominal dia.	Each	3,600.00
	(b) 100 mm nominal dia.	Each	5,336.00
	(c) 150 mm nominal dia.	Each	8,215.00
	(d) 200 mm nominal dia.	Each	13,553.00
	(e) 250 mm nominal dia.	Each	21,209.00
	(f) 300 mm nominal dia.	Each	25,467.00
	(g) 350 mm nominal dia.	Each	37,096.00
	(h) 450 mm nominal dia.	Each	57,214.00
9	Providing and fixing CI equilibrium ball valve with all accessories and bearing ISI mark or MCGM tested etc complete as directed.		
	(a) 80 mm nominal dia.	Each	1,595.00
	(b) 100 mm nominal dia.	Each	1,921.00
	(c) 150 mm nominal dia.	Each	2,588.00
	(d) 200 mm nominal dia.	Each	4,699.00
	(e) 250 mm nominal dia.	Each	8,903.00
	(f) 300 mm nominal dia.	Each	10,490.00
10	Providing and fixing stand post hydrant Municipal pattern 625 mm (2.50") dia. or nearest metric equivalent dia. complete as per IS:908/1975 with 80 mm nominal dia. sluice valve of approved make, MCGM tested CI duck foot bend 80 mm nominal dia. including CI road box for sluice valve of required size with CI frame and cover and CI	Each	34,171.00

XVIII - CI Water Mains & Fittings

Sr. No.	Item Description	Unit	Rate in ₹
	flanged tail pieces, distance pieces of required length, jointing with m.s. nut bolts, rubber insertion pack etc. including providing chamber of suitable size with one brick thick masonry walls in CM (1:5) on CC bedding (1:3:6) 150 mm thick, plastering internally and externally in CM (1:3) and two coats of approved synthetic enamel paint over a coat of zinc chromate (yellow) primer to the stand post etc. complete as directed.		
11	Providing and fixing non-pressure type underground fire hydrant 625 mm (2.50") dia. or nearest metric equivalent dia. complete as per I.S.908/1975 -- do -- do -- as per Item No.10 above.	Each	16,973.00
12	Providing and fixing MCGM tested or ISI marked CI road box for stop cocks/ wheel valves comprising of CI box with hinged cover fixed on chamber of suitable size with one brick thick masonry in CM (1:5) and embedding the box in cement concrete (1:2:4) and including necessary excavation etc. complete as directed.	Each	6,176.00
13	Constructing brick masonry sluice valve chamber of 600X600 mm size and of required depth including 250 mm thick cement concrete (1:3:6) foundation, one brick thick side walls in CM (1:5), plastered internally and externally with CM (1:3), heavy duty CI frame and cover of approved make fixed in cement concrete (1:2:4) including excavation etc. complete as directed.	Each	10,808.00
14	Providing and fixing 300 mm dia. blank flanges including rubble packing, nuts and bolts etc. complete as directed.	Each	2,642.00
15	Providing and fixing 400 mm wide m.s. ladder from roof level to the top of the water storage tank, with 2 Nos. 50X6 mm m.s. flats for stringers and 20 mm dia. m.s. bars at 250 mm centres for rungs including embedding the lower end in 600X500X300 mm cement concrete block (1:2:4) finished with plaster and top end fixed to the top slab with suitable fixing arrangement including necessary stay to the wall and painting with two coats of approved synthetic enamel paint over a coat of zinc chromate (yellow) primer etc. complete as directed.	Mtr.	1,687.00
16	Providing and fixing domestic water meter of approved make with CI external strainer and non-return valve and MCGM tested etc. complete as directed.		
	(a) for 15 mm nominal dia. pipeline	Each	1,594.00
	(b) for 20 mm nominal dia. pipeline	Each	2,349.00

XVIII - CI Water Mains & Fittings

Sr. No.	Item Description	Unit	Rate in ₹
	(c) for 25 mm nominal dia. pipeline	Each	3,622.00
	(d) for 40 mm nominal dia. pipeline	Each	8,155.00
	(e) for 50 mm nominal dia. pipeline	Each	10,596.00
17	Extra over rate for Item No.16 above for providing brick masonry chamber of internal dimensions 900X450 mm and of required depth including 250 mm thick cement concrete (1:3:6) foundation, one-brick thick side walls in CM (1:5), plastered internally and externally with CM (1:3), etc. complete as directed excluding excavation.	Each	1,954.00
18	Providing and fixing approved full flow velocity water metre with CI external strainer and non-return valve with MCGM test certificate etc. complete as directed.		
	(a) for 80 mm nominal dia. pipeline	Each	17,605.00
	(b) for 100 mm nominal dia. pipeline	Each	24,539.00
	(c) for 150 mm nominal dia. pipeline	Each	34,905.00
	(d) for 200 mm nominal dia. pipeline	Each	52,927.00
	(e) for 250 mm nominal dia. pipeline	Each	82,611.00
	(f) for 300 mm nominal dia. pipeline	Each	131,727.00
19	Extra over rates for Items Nos.18(a), (b) and (c) above for providing brick masonry chamber of internal dimensions 900X900 mm and upto 1000 mm deep including 250 mm thick cement concrete (1:3:6) foundation, one-brick thick side walls in CM (1:5), plastered internally and externally in CM (1:3), etc. complete as directed excluding excavation.	Each	4,646.00
20	Extra over rates for Item Nos.18 (d), (e) and (f) above for providing brick masonry chamber of internal dimensions 1500X1250 mm and upto 1250 mm deep including 250 mm thick cement concrete (1:3:6) foundation, one brick side walls in CM (1:5), plastered internally & externally in CM (1:3), etc. complete as directed excluding excavation.	Each	12,853.00
21	Extra over rate for Item Nos.17, 19 & 20 above for providing & fixing m.s. angle frame & m.s. plate cover of required size with locking arrangements fixed in cement concrete (1:2:4) etc. complete as directed.	qntl.	8,286.00
22	Removing lead from defective/ leakage joint of CI pressure water mains and cleaning the spigot area of existing pipe to receive new lead in joint etc. complete as directed.	Each	144.00
23	Dismantling/ cutting/ removing existing CI water mains and removing lead from its joints using gas cutter, stove or by chiselling etc. depositing lead removed from joints to sectional office store and		

XVIII - CI Water Mains & Fittings

Sr. No.	Item Description	Unit	Rate in ₹
	lifting the removed pipe from trench and stacking the same at the store etc. complete as directed.		
	(a) 100 mm dia.	Mtr.	46.00
	(b) 150 mm dia.	Mtr.	56.00
	(c) 250 mm dia.	Mtr.	68.00
	(d) 300 mm dia.	Mtr.	82.00
24	Providing and lowering in trench and assembling in line and level Ductile iron fresh water pipe line K9 grade as per IS:8329 with spigot and socket ends for push up joints (overlaps will not be paid) etc. complete as directed.		
	(a) 100 mm dia.	Mtr.	1,048.00
	(b) 150 mm dia.	Mtr.	1,602.00
	(c) 200 mm dia.	Mtr.	1,810.00
	(d) 250 mm dia.	Mtr.	2,718.00
	(e) 300 mm dia.	Mtr.	3,422.00
25	Providing and fixing EPDM Push on joint rubber gasket for pipe manufactured as per ISO 4633 (IS:5382) for quality of material including cleaning of surface area from mud, sand, pebbles, frozen materials or foreign particles, application of recommended lubricant to gasket and surface of pipe in contact and fixing the pipe by using fork or rack and lever machine etc. complete as directed.		
	(a) 100 mm dia.	Each	65.00
	(b) 150 mm dia.	Each	83.00
	(c) 200 mm dia.	Each	106.00
	(d) 250 mm dia.	Each	123.00
	(e) 300 mm dia.	Each	148.00
26	Removing existing CI strainer from water mains and providing and fixing new strainer of approved make for fresh water pipeline etc. complete as directed.		
	(a) 80 mm dia.	Each	2,280.00
	(b) 100 mm dia.	Each	3,530.00
	(c) 150 mm dia.	Each	6,155.00
	(d) 200 mm dia.	Each	13,969.00
	(e) 250 mm dia.	Each	17,781.00
	(f) 300 mm dia.	Each	28,091.00
27	Removing 300 mm dia. flanged vertical CI water pipeline including steel scaffolding etc. complete as directed.	Mtr.	642.00
28	Re-fixing 300 mm dia. flanged vertical CI pipeline including scaffolding, nut bolts, rubber packing etc. complete as directed.	Mtr.	752.00
29	Providing and fixing 80 mm CI flange by welding to GI pipes including making holes, nut bolts etc. complete as directed.	Each	639.00

XVIII - CI Water Mains & Fittings

Sr. No.	Item Description	Unit	Rate in ₹
30	Removing CI sluice valve/ non-return valve from 300 mm dia. fresh water mains and re-fixing the same after cleaning etc. complete as directed.	Each	2,541.00
31	Cutting of existing 100 mm dia CI water pipeline using hacksaw etc. complete as directed.	Cut	451.00
32	Removing and re-fixing 300 mm dia. blank flange including new nut bolts and new rubber packing etc. complete as directed.	Each	495.00

XIX - Water Storage Tanks

Sr. No.	Item Description	Unit	Rate in ₹
1	Supplying, fabricating and erecting m.s. plate welded water storage tanks of 5 mm thick plate with m.s. angle stays and mosquito-proof CI hinged frame and cover 475 mm dia. with locking arrangement, holes for inlet, outlet and interconnections, necessary length of GI pipe with drain plug, one coat of anti-corrosive paint & two coats of tank mastic bituminous paint internally and two coats of synthetic enamel paint over a coat of zinc chromate (yellow) primer externally including hoisting upto a height of 10 Metres above ground level etc. complete as directed.		
	(a) 1.25X1.25X1.25 Mtrs. deep tanks	Each	24,998.00
	(b) 2.50X1.25X1.25 Mtrs. deep tanks	Each	38,825.00
	(c) 2.50X2.50X1.25 Mtrs. deep tanks	Each	60,136.00
	(d) 3.75X1.25X1.25 Mtrs. deep tanks	Each	52,813.00
	(e) 3.75X2.50X1.25 Mtrs. deep tanks	Each	81,694.00
2	Extra over rate for Item No.1 above for hoisting tanks to a height of more than 10 Mtrs. above ground level, for every additional height of 5 Mtrs. or part thereof in excess of 10 Mtrs. etc. complete as directed.		
	(a) 1.25X1.25X1.25 Mtrs. deep tanks	Each	2,254.00
	(b) 2.50X1.25X1.25 Mtrs. deep tanks	Each	3,585.00
	(c) 2.50X2.50X1.25 Mtrs. deep tanks	Each	5,627.00
	(d) 3.75X1.25X1.25 Mtrs. deep tanks	Each	4,909.00
	(e) 3.75X2.50X1.25 Mtrs. deep tanks	Each	7,698.00
3	Supplying, fabricating and delivering at site the components of pressed steel tanks of 5 mm thick m.s. plates with flanges including m.s. screwed pads for inlets, outlets, interconnections & drains, overflows, CI hinged frame & cover 475 mm dia. having locking arrangement etc. complete as directed.		
	(a) 1.25X1.25X1.25 Mtrs. deep tanks	Each	48,449.00
	(b) 2.50X1.25X1.25 Mtrs. deep tanks	Each	79,101.00
	(c) 2.50X2.50X1.25 Mtrs. deep tanks	Each	119,757.00
	(d) 3.75X1.25X1.25 Mtrs. deep tanks	Each	105,689.00
	(e) 3.75X2.50X1.25 Mtrs. deep tanks	Each	149,820.00
4	Hoisting upto 10 Mtrs. height and assembling the components of pressed steel plate tanks including providing necessary hoisting gear etc. complete as directed.		
	(a) 1.25X1.25X1.25 Mtrs. deep tanks	Each	2,254.00
	(b) 2.50X1.25X1.25 Mtrs. deep tanks	Each	3,585.00
	(c) 2.50X2.50X1.25 Mtrs. deep tanks	Each	5,627.00
	(d) 3.75X1.25X1.25 Mtrs. deep tanks	Each	4,909.00
	(e) 3.75X2.50X1.25 Mtrs. deep tanks	Each	7,698.00

XIX - Water Storage Tanks

Sr. No.	Item Description	Unit	Rate in ₹
5	Providing, fabricating and fixing 475 mm dia. CI frame and 900X600 mm m.s. plate to RCC hume pipe tank as per existing pattern including nut bolts, hinges etc. fixing the frame in cement concrete (1:1.5:3) finishing in CM (1:3), coal tarring to the surface of the frame in contact with the concrete and anti-corrosive zinc chromate (yellow) primer one coat and two coats of approved synthetic enamel paint to all other exposed surfaces etc. complete as directed (frames and covers should be as per requirement of MCGM pest control department).	Each	2,161.00
6	Providing and fixing CI mosquito-proof hinged circular frame and cover with locking arrangements etc. complete as directed.		
	(a) 475 mm dia.	Each	1,290.00
	(b) 525 mm dia.	Each	1,738.00
	(c) 600 mm dia.	Each	2,397.00
7	Providing and fixing PVC mosquito-proof coupling for vent pipe of underground or overhead water storage tank as per requirement of MCGM pest control department complete as directed.		
	(a) 40 mm dia.	Each	30.00
	(b) 50 mm dia.	Each	31.00
8	Providing and fixing mosquito-proof netting and m.s. flange to existing 150 mm dia. over-flow pipe of underground water storage tank as per requirement of MCGM pest control department complete as directed.	Each	114.00
9	Providing and fixing 525 mm dia. CI mosquito-proof hinged circular cover for RCC/ hume pipe tank including locking arrangement including painting, finishing the surface, filling the gap with cement concrete (1:1.5:3) and finishing the surface in CM (1:3), coal tarring the surface of frame in contact with cement concrete, remaining surface shall be painted with one coat of zinc Chromate (yellow) primer and two coats of synthetic enamel paint and making them air tight and mosquito-proof etc. complete as directed (the cover shall be approved by MCGM).	Each	1,416.00
10	Providing and fixing CI mosquito-proof hinged circular cover for RCC/ hume pipe tank including locking arrangement including painting, finishing the surface, filling the gap with cement concrete (1:1.5:3) and finishing the surface in CM (1:3), coal tarring the surface of frame in contact with cement concrete, remaining surface shall be painted with one coat of zinc Chromate (yellow)		

XIX - Water Storage Tanks

Sr. No.	Item Description	Unit	Rate in ₹
	primer and two coats of synthetic enamel paint and making them air tight and mosquito-proof etc. complete as directed (the cover shall be approved by MCGM).		
	(a) 475 mm dia.	Each	1,075.00
	(b) 600 mm dia.	Each	1,911.00
11	Providing and fixing m.s./ CI circular frame for existing CI mosquito-proof hinged circular cover for RCC/ hume pipe tank including locking arrangement including painting, finishing the surface, filling the gap with cement concrete (1:1.5:3) and finishing the surface in CM (1:3), coal tarring the surface of frame in contact with cement concrete, remaining surface shall be painted with one coat of zinc Chromate (yellow) primer and two coats of synthetic enamel paint and making them air tight and mosquito-proof etc. complete as directed (the cover shall be approved by MCGM).		
	(a) 475 mm dia.	Each	773.00
	(b) 525 mm dia.	Each	960.00
	(c) 600 mm dia.	Each	1,224.00
12	Providing and fixing at any height HDPE black coloured ISI marked approved overhead water storage tank having CI mosquito-proof frame and cover, making connection for inlet and outlet, 40 mm dia. medium class GI pipe 1 Mtr. long over-flow pipe with PVC mosquito-proof coupling and 15 mm dia. medium class GI pipe on outlet with mosquito-proof coupling etc. with painting to GI pipes etc. complete as directed.	Lit.	7.12
13	Making holes to the RCC water storage tank including fixing inlet/ outlet pipe and reinstating the same including curing etc. complete as directed.	Each	545.00
14	Removing carefully old or abandoned m.s./ hume pipe water storage tank upto 5000 litres capacity from terrace of the building and stacking the same as directed etc. complete.	Each	927.00

XX - Drainage Works

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing and laying 'A' grade glazed stoneware pipes with joints made with tarred gasket of hemp or spun yarn, tightly packed and neatly finished with rich cement grout of cement and sand (1:1) perfectly air tight including making drainage connections to inspection chambers wherever necessary, testing of joints, curing etc. complete as specified and as directed but excluding excavation.		
	(a) 100 mm nominal dia.	Mtr.	151.00
	(b) 150 mm nominal dia.	Mtr.	225.00
	(c) 200 mm nominal dia.	Mtr.	403.00
	(d) 230 mm nominal dia.	Mtr.	437.00
	(e) 300 mm nominal dia.	Mtr.	739.00
2	Providing and fixing stoneware 'S' or 'P' type gulley traps with outlet & CI grating, 230X300 mm CI hinged cover with frame, one brick thick masonry chamber with cement concrete (1:3:6) bedding 150 mm thick, rubble packing 150 mm thick, cement and sand plaster (1:3) 15 mm thick, finished smooth with cement inside and rough outside including encasement, etc. complete as specified and as directed but excluding excavation.		
	(a) Size: 150X150 mm with 100 mm outlet & 150X150 mm size CI grating	Each	1,464.00
	(b) Size: 225X225 mm with 150 mm outlet & 225X225 mm size PVC grating	Each	2,798.00
3	Providing and fixing stoneware glazed bends etc. complete as specified and as directed but excluding excavation.		
	(a) 100 mm nominal dia.	Each	102.00
	(b) 150 mm nominal dia.	Each	139.00
4	Providing and fixing stone ware glazed intercepting sewer trap with CI frame and cover of approved quality including constructing brick masonry chamber, 150 mm thick (1:3:6) cement concrete bedding, 150 mm thick rubble packing, encasing, etc. complete as specified and as directed but excluding excavation.		
	(a) 150 mm nominal dia.	Each	4,423.00
	(b) 230 mm nominal dia.	Each	5,245.00
5	Providing and laying non-pressure NP-2 class RCC pipes of approved quality with collars, jointed with stiff cement mortar (1:1) including providing tight packing of tarred spun yarn, curing etc. complete as specified and as directed but exclusive of excavation.		
	(a) 100 mm dia.	Mtr.	184.00
	(b) 150 mm dia.	Mtr.	249.00

XX - Drainage Works

Sr. No.	Item Description	Unit	Rate in ₹
	(c) 250 mm dia.	Mtr.	394.00
	(d) 300 mm dia.	Mtr.	503.00
	(e) 450 mm dia.	Mtr.	931.00
6	Providing and laying 150 mm dia. non-pressure NP-2 class RCC pipes of approved quality with collars, jointed with stiff cement mortar (1:1) including providing tight packing of tarred spun yarn, CC (1:3:6) in bedding as specified under IS:1742/1960, form work, handling, cutting to required lengths, curing etc. complete as specified and as directed but exclusive of excavation.		
	(a) 100 mm dia.	Mtr.	386.00
	(b) 150 mm dia.	Mtr.	451.00
	(c) 250 mm dia.	Mtr.	771.00
	(d) 300 mm dia.	Mtr.	927.00
7	Extra over rate for providing HAUNCHING as specified under IS:1742/1960.		
	(a) for Item No.6 (a) & (b)	Mtr.	244.00
	(b) for Item No.6 (c)	Mtr.	251.00
	(c) for Item No.6 (d)	Mtr.	309.00
8	Extra over rate for providing ENCASING as specified under IS:1742/1960.		
	(a) for Item No.6 (a) & (b)	Mtr.	469.00
	(b) for Item No.6 (c)	Mtr.	521.00
	(c) for Item No.6 (d)	Mtr.	595.00
9	Providing and laying non-pressure NP-2 class RCC pipes 150 mm dia. with collars in two half rounds to lay around existing electric/ telephone cable, keeping the pipes in position by means of suitable m.s. clamps 6 mm thick, 75 mm wide with necessary bolts etc. including providing tight packing of tarred spun yarn as directed complete but exclusive of excavation.	Mtr.	375.00
10	Constructing rectangular brick masonry inspection chamber of internal dimensions 900X450 mm and 500 mm deep with one brick thick masonry in cement mortar (1:4), 20 mm thick cement and sand plaster (1:3) finished rough externally and smooth internally, 150 mm thick (1:3:6) cement concrete in foundation bedding, projecting 150 mm beyond walls on 150 mm thick rubble packing, cement concrete (1:2:4) in haunches, channels and in copings including necessary cast iron steps but excluding excavation and CI frame and cover complete as directed.	Each	5,369.00
11	Extra over rate for Item No.10 above for every additional depth of 500 mm or part thereof.	0.5 Mtr. or part thereof	3,017.00

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Sr. No.	Item Description	Unit	Rate in ₹
12	Providing and fixing approved quality CI rectangular cover and frame for inspection chambers of opening size 900X450 mm as specified and as directed.		
	(a) Medium duty - 100 Kgs.	Each	6,155.00
	(b) Light duty - 50 Kgs.	Each	3,299.00
13	Providing and fixing pre-cast (1:1.5:3) or M20 grade RCC rectangular covers with angle iron nosing and frame for inspection chambers of opening size 900X450 mm complete as specified and as directed.		
	(a) 100 mm thick	Each	1,310.00
	(b) 75 mm thick	Each	1,037.00
14	Providing and fixing pre-cast RCC (1:1.5:3) or M20 grade fibre reinforced rectangular frame and cover of 25 tonnes load bearing capacity for inspection chamber, the frame with 25X3 mm thick m.s. flat all around and clear opening of 900X450 mm, heavy duty pre-cast RCC fibre reinforced rectangular cover with 18 S.W.G. m.s. flat all around and with necessary lifting arrangement of 12 mm dia. m.s. bars welded to the mesh as specified and as directed complete.	Each	3,971.00
15	Constructing brick masonry conical man-hole of 1.5 Mtrs. depth with one brick thick masonry in CM (1:4), bottom internal dia. 1.2 Mtrs. and top internal dia. 0.525 Mtr., plastered internally and externally with cement mortar (1:3) 20 mm thick, 250 mm thick rubble packing 2.2 Mtrs. dia. and cement concrete (1:3:6) 230 mm thick having 2.2 Mtrs. dia. including benching and channels in CC (1:2:4) finished to slope and CI steps at 300 mm intervals but exclusive of CI frame and cover and excavation etc. complete as directed.	Each	14,325.00
16	Extra over rate for Item No.15 above for additional 0.5 Mtr. upto total depth of 2.0 Mtrs. the portion below 1.5 Mtrs. depth being of cylindrical shape 1.2 Mtrs. internal dia. with one and half brick thick masonry in cylindrical portion complete as per Item No.15 above.	0.5 Mtr. or part thereof	4,645.00
17	Constructing brick masonry conical man-hole of 2.0 Mtrs. depth with 1.5 Mtrs. bottom internal dia. and 0.525 Mtr. top internal dia. with one brick thick masonry in CM (1:4) and plastered internally and externally with cement mortar (1:3) 20 mm thick including 250 mm thick rubble packing having 2.5 Mtrs. dia. and cc (1:3:6) 300 mm thick having 2.5 Mtrs. dia. including benching and channels in	Each	21,250.00

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Sr. No.	Item Description	Unit	Rate in ₹
	cc (1:2:4) finished to slope, CI steps at 300 mm intervals but exclusive of frame, cover and excavation etc. complete as directed.		
18	Extra over rate for Item No.17 above for every additional depth of 0.5 Mtr. upto extra depth of 1.5 Mtrs. (total depth 3.5 Mtrs.) the portion below 2 Mtrs. depth being of cylindrical shape 1.5 Mtrs. internal dia. with one and half brick thick masonry in CM (1:4) in cylindrical portion complete as per Item No.17 above.	0.5 Mtr. or part thereof	5,528.00
19	Providing and fixing CI circular man-hole cover and frame conforming to IS:1726 with clear opening of 500 mm including cement concrete (1:2:4) bedding etc. complete as specified and as directed.		
	(a) Heavy duty - 100 Kgs.	Each	14,028.00
	(b) Medium duty - 50 Kgs.	Each	7,813.00
20	Supplying and fixing heavy duty pre-cast RCC fibre reinforced circular man-hole frame and cover of 35 tonnes load bearing capacity, the frame with 25X3 mm thick m.s. flat all around and clear opening of 540 mm dia., heavy duty pre-cast RCC fibre reinforced circular man-hole cover with 18 S.W.G. m.s. strap all around and with lifting arrangement of 12 mm dia. m.s. bars welded to the main reinforcement, etc. complete as directed.	Each	3,193.00
21	Constructing brick masonry single water-gully 450X450 mm opening size and of required depth, consisting of 150 mm rubble packing and 225 mm cement concrete (1:3:6) in foundation, one brick thick walls in cement mortar (1:5), 20 mm thick (1:3) cement plaster internally and externally, cement concrete (1:2:4) in fillets of invert & in coping, providing and fixing CI diaphragm including providing and fixing pre-cast RCC (1:2:4) removable or fixed dhapas complete as directed.	Each	10,843.00
22	-- do -- -- do -- double watergully 900X450 mm opening size -- do -- -- do -- as per Item No.21 above.	Each	13,881.00
23	Providing and fixing pre-cast RCC fibre reinforced water-gully frame and cover of 15 tonnes load bearing capacity, the frame with 25X3 mm thick m.s. flat all around and, heavy duty pre-cast RCC fibre reinforced rectangular cover with 18 S.W.G., m.s. strap all around and with necessary lifting arrangement etc. complete as specified and as directed.		
	(a) clear opening of 450X450 mm	Each	1,669.00
	(b) clear opening of 900X450 mm	Each	2,416.00

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Sr. No.	Item Description	Unit	Rate in ₹
24	Providing and fixing pre-cast 100 mm thick RCC (1:2:4) or M15 grade grating with CI frame for water gullies including necessary PCC (1:2:4) bedding etc. complete as specified & as directed.		
	(a) opening size: 450X450 mm	Each	3,857.00
	(b) opening size: 900X450 mm	Each	7,422.00
25	Providing and fixing CI rungs in man-holes, complete as specified and as directed.	Each	433.00
26	Providing and supplying 150X300X25 mm thick RCC rectangular grating complete as directed.	Each	108.00
27	Providing and fixing 150 mm dia., CI drop connection in man-holes including inspection and cleaning eye with chain and lid, CI drop pipe and bend, encased with CC (1:3:6), cutting holes in walls and making good with brick work in CM (1:3), plastered with CM (1:3) on inside of the man-hole wall, lead caulked joints between CI pipe and fittings, stiff cement mortar (1:1) joints between CI 'T' and S.W. pipes, making required channels etc. complete as directed.	Each	6,978.00
28	Making connection to existing man-holes/ chambers including making good the damaged masonry, providing channel with cement concrete (1:2:4) etc. complete as directed.	Each	128.00
29	Raising and lowering man-holes/ water gullies or chambers including dismantling/ building up brick masonry/ concrete including removing and re-fixing frame and cover etc. complete as directed.	Each	913.00
30	Providing and fixing total 6 Mtrs. high 20 gauge GI sheet vent shaft 200X100 mm with lower 2.0 Mtrs. long CI piece and head piece all with air tight joints fixed complete with 40X6 mm WI clamps at required centres, CC (1:3:6) in combined foundation block 1.25X1.25X1.7 Mtrs. for the teak wood post and vent chamber, one brick thick masonry walls plastered in CM (1:5), RCC dhapa in the vent chamber, teak wood post 250 mm X 180 mm X 6 Mtrs. with m.s. bars 2 Nos. each 22 mm dia. 750 mm long fixed at the bottom of the post, 100 mm dia. glazed stone-ware pipes from the man-hole to the vent chambers, excavation, painting etc. complete as directed.	Each	19,465.00
31	-- do -- -- do -- as Item No.30 except for RCC post 300 mm X 250 mm X 6 Mtrs. long with RCC footing in place of teak wood post.	Each	8,312.00
32	Providing and fixing 20 gauge GI sheet vent shaft 200X100 mm with lower 2.0 Mtrs. long CI piece and head piece with WI clamps fixed to wall of	Each	7,876.00

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Sr. No.	Item Description	Unit	Rate in ₹
	building (minimum height 16 Mtrs.) necessary teak wood blocks including the vent chamber, dhapa, 100 mm stoneware pipes, excavation etc. complete as directed (only the clear height above ground level will be measured and paid for).		
33	Providing and fixing HP septic tank 1200 mm dia. and 2.5 Mtrs. long including 250 mm rubble packing, CC (1:3:6) bed concrete, AC vent pipe with cowl etc. complete as directed.	Each	19,217.00
34	Constructing brick masonry single water gully 600X600 mm opening size and required depth, consisting of 150 mm rubble packing and 150 mm thick cement concrete (1:3:6) in foundation, one brick thick wall in cement mortar (1:5), 20 mm thick (1:3) cement plaster, cement concrete (1:1.5:3) in fillets of invert and in coping, constructing one brick thick masonry diaphragm over RCC lintel of (1:1.5:3) and fixing pre-cast RCC M-35 grade removable dhapas with lifting hooks including reinforcement, formwork etc. excluding grating complete as shown on the drawing or as directed.	Each	14,414.00
35	Providing & fixing heavy duty GI grating 12 mm thick with 75 micron galvanised coating to the water gully of clear opening size 600X600 mm etc. complete as directed.	Each	6,563.00
36	Providing & laying 450 mm dia. non-pressure NP-2 class RCC pipes of approved quality with collars, jointed with stiff cement mortar (1:2) including providing tight packing of tarred spun yarn, 300 mm thick C.C. (1:3:6) in bedding over a layer of 150 mm thick rubble packing, form work, handling, cutting to the required lengths, curing etc. complete as specified and as directed but exclusive of excavation.	Mtr.	1,684.00
37	Providing & laying non-pressure NP-3 class RCC pipes of approved quality with collars, jointed with stiff cement mortar (1:1) including providing tight packing of tarred spun yarn, curing etc. complete as specified and as directed but exclusive of excavation.		
	(a) 100 mm dia.	Mtr.	223.00
	(b) 150 mm dia.	Mtr.	306.00
	(c) 250 mm dia.	Mtr.	754.00
	(d) 300 mm dia.	Mtr.	847.00
	(e) 450 mm dia.	Mtr.	1,567.00
38	Providing & laying non-pressure NP-3 class RCC pipes of approved quality with collars, jointed with stiff cement mortar (1:1) including providing tight packing of tarred spun yarn, CC (1:3:6) in bedding		

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Sr. No.	Item Description	Unit	Rate in ₹
	as specified under IS:1742/1960 over 150 mm thick rubble packing, form work, handling, cutting to the required lengths, curing etc. complete as specified and as directed but exclusive of excavation.		
	(a) 100 mm dia.	Mtr.	501.00
	(b) 150 mm dia.	Mtr.	600.00
	(c) 250 mm dia.	Mtr.	1,247.00
	(d) 300 mm dia.	Mtr.	1,404.00
	(e) 450 mm dia.	Mtr.	2,286.00
39	Cleaning thoroughly man-holes of storm water drain of any size, depth including pumping out water or plugging and removal of silt etc. complete as directed.	Each	212.00
40	Cleaning thoroughly water gullies of any size, depth including cleaning of pipe drain from man-hole to water gullies with de-watering if necessary and removal of silt etc. complete as directed.	Each	196.00
41	Remove solids, any other waste materials, pieces of stones, debris (if any) from septic tank and cleaning thoroughly and transport the spoils to a pit excavated for disposal etc. complete as directed (Excavation of pit will be paid separately).		
	(a) 3.5X4.00X2.50 Mtrs.	Each	4,136.00
	(b) 12.48X3.05X2.905 Mtrs.	Each	6,644.00
	(c) 18.28X8.53X2.92 Mtrs.	Each	15,730.00
42	Cleaning thoroughly chambers connected to lavatory blocks and cleaning thoroughly pipe drain connected to latrine drainage system etc. complete as directed.	Each	369.00
43	De-silting of storm water drains, open drains, surface drains of any size including removing and re-fixing RCC covers, removal of silt/ mud etc. and stacking the spoil within 50 m lead etc. complete as directed.	Cu.M.	212.00
44	Cleaning thoroughly gully trap of any size, depth including cleaning of drainage pipe from inspection chamber to gully trap including de-watering if necessary and removal of silt, debris, stones, sludge etc. including transportation of removed materials etc. complete as directed.	Each	54.00

XXI - Miscellaneous Works

Sr. No.	Item Description	Unit	Rate in ₹
1	Providing & laying dry stone rubble packing in foundation etc. of building including filling interstices with small pieces of stone chips, thoroughly ramming, watering, consolidating etc. complete as directed.		
	(a) 250 mm thick	Sq.M.	285.00
	(b) 150 mm thick	Sq.M.	186.00
2	Laying only dry stone rubble packing in foundation etc. of building with stones available at site – do -- do -- as per Item No.1 above.		
	(a) 250 mm thick	Sq.M.	93.00
	(b) 150 mm thick	Sq.M.	71.00
3	Providing and laying dry rubble pitching 150 to 225 mm wide hammer dressed on face placed regularly in even courses and roughly jointed in cement mortar (1:3) etc. complete as directed.		
	(a) 150 mm deep	Sq.M.	385.00
	(b) 250 mm deep	Sq.M.	532.00
4	Supplying & fixing in position 2 mm thick plastic coated brass wires for drying clothes including supplying and fixing teak wood battens 50X20X600 mm long including one coat of wood primer and two coats of synthetic enamel paint to teak wood battens etc. complete as directed (each wire will be measured separately and paid for straight distance between the walls).	Mtr.	17.00
5	Providing m.s. fan hook of 16 mm dia. m.s. bar bent to shape with hooked ends and fixing the same in RCC slabs during laying including oil painting the exposed portion of hook etc. complete as directed.	Each	76.00
6	Providing and fixing barbed wire fencing of 3 Mtrs. height above ground level with m.s. angle posts size 50X50X6 mm at 2.5 Mtrs. centres fixed in CC foundations of size as shown on drawing or as directed, GI barbed wire 100 mm points horizontal strands at 150 mm pitch with two diagonal strands including painting the m.s. angles with two coats of approved synthetic enamel paint over a coat of zinc chromate (yellow) primer etc. complete as directed (Note: Foundation concrete and excavation will be paid separately).	Mtr.	569.00
7	Providing & fixing barbed wire fencing 2.5 Mtrs. high above ground level with non-teak bully posts 100 mm dia. fixed in CC foundations of size as shown on drawing or as directed at 3 Mtrs. centres and GI barbed wire 100 mm points horizontal strands at 150 mm pitch with two diagonal strands including coal tarring the bully	Mtr.	179.00

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Sr. No.	Item Description	Unit	Rate in ₹
	posts for full height complete as directed (Note: Foundation concrete & excavation will be paid separately).		
8	Providing & fixing RCC pre-cast tresspass proof fencing 2.5 Mtrs. high above ground level consisting of RCC posts 150X125 mm fixed in CC foundation of size as shown on drawing or as directed at 1.5 Mtrs. centres and pre-cast slabs 225X50 mm thick as shown on drawing including cement pointing the pre-cast slabs with (1:3) cement mortar complete as directed (Note: Foundation concrete and excavation will be paid separately).	Mtr.	3,636.00
9	Providing & fixing m.s. angle iron fencing 2.5 Mtrs. high above ground level with 3 horizontal angles 50X50X6 mm and vertical angles 40X40X6 mm at 150 mm centres with RCC posts 200X200 mm at 3 Mtrs. centres, fixed in CC foundations of size as shown on drawing or as directed including providing all necessary nut bolts etc. and painting the steel work with two coats of approved synthetic enamel paint over a coat of zinc chromate (yellow) primer complete as directed (Note: Foundation concrete and excavation will be paid separately).	Mtr.	4,062.00
10	Providing and fixing 50 mm wide moulded PVC hand rail complete as directed.	Mtr.	103.00
11	Supplying and installing in position m.s. ERW pipes of 9.15 mm wall thickness including aligning, stringing, assembling, welding, providing and fixing double plates 350X200X5 mm thick at each support, 10% radiography, hydrostatic testing, disinfection of the line and bacteriological tests on water etc. complete as directed.		
	(a) 100 mm dia.	Mtr.	1,023.00
	(b) 200 mm dia.	Mtr.	3,105.00
12	Providing and applying polyurethane paint on steel surfaces cleaned by sand blasting, including one coat of 92% Zinc rich primer (40 micron DFT), one coat of MIO (100 micron DFT) and two coats of aliphatic aluminium filled polyurethane paint (40 micron per coat DFT) and as per manufacturers specifications.	Sq.M.	404.00
13	Providing and applying polyurethane paint on mechanically clean steel surfaces including wash of 5% phosphoric acid solution, one coat of rust gone, two coats of zinc phosphate primer (40 micron per coat DFT), one coat of MIO (100 micron DFT) and two coats of aliphatic aluminium	Sq.M.	423.00

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Sr. No.	Item Description	Unit	Rate in ₹
	filled polyurethane paint (40 micron per coat DFT) and as per manufacturers specifications etc. complete as directed.		
14	Providing and fixing 18-20 mm thick granite stone plaque including engraving the matter as directed to the entire satisfaction of the Engineer. The Hindi alphabets are required to be engraved in different sizes including 3" dia. MbPT emblem on the granite plaque shall be fixed with a brass frame around the plaque etc. complete as directed.	Sq.M.	26,395.00
15	Providing and fixing venetian blinds of approved quality colour and types including fixing etc. complete in all respect as directed.	Sq.M.	634.00
16	Providing and fixing in position anodised aluminium grill of approved quality, design (weight minimum 4 Kgs. per Sq.M.) complete as directed.	Sq.M.	806.00
17	(a) Providing and fixing false ceiling of grid 60X60 cm of acoustic tiles of 'Anchor' or equivalent resting on aluminium 'T' section 38X38X1.5 mm thick size 60 cm both ways and suspended bars of 6 mm dia. @1 Mtr. centres both ways with 6 mm 'J' hooks bolts, painting and providing and laying glass wool insulation of 50 mm thick in polythene bags etc. complete as directed.	Sq.M.	1,189.00
	(b) Providing and fixing PVC false ceiling consisting of 60X60 cm, 3 mm thick plain PVC sheet used as panel inserted in frame work made using anodized aluminium 'T' section of size 25X25X1 mm thick in square pattern of grid size of 60 cm both ways and suspended bars of 6 mm dia. @1 Mtr. centres both ways with 6 mm 'J' hooks bolts and frame work supported on side walls with the use of 25X25 mm aluminium angles, painting etc. complete as directed.	Sq.M.	962.00
18	Providing and fixing 4 mm thick clear and transparent acrylic sheet including teak wood battens of required size, complete including necessary fittings, teak wood battens to be painted with 2 coats of synthetic enamel paint over a coat of approved primer etc. complete as directed.	Sq.M.	861.00
19	Providing and fixing GI chain link fencing made up of 10 guage wire, hot dipped galvanised, fixing the same with approved 'U' clips to m.s. angles etc. complete as directed.		
	(a) 25X25 mm opening	Sq.M.	358.00
	(b) 50X50 mm opening	Sq.M.	205.00

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Sr. No.	Item Description	Unit	Rate in ₹
20	Providing and fixing in position extruded aluminium sections with 15 micron anodising in partitions, doors, sliding windows of required profile, gauge and size and approved manufacture including approved fixtures and fastenings etc. complete as directed (Door fittings such as hinges, locks, door closer etc. shall be paid separately).	Kg.	297.00
21	Providing and fixing door closer of 'Falcon' brand or equivalent, mortise lock of 'Godrej' brand or equivalent and 3 Nos. 125 mm heavy duty aluminium hinges for doors including necessary fastenings, fittings to the door in proper alignment etc. complete as directed.	Each	1,806.00
22	Providing and fixing 5 mm thick glass for partitions, doors, sliding windows with necessary rubber gaskets of approved quality and manufacture all around the glass panel etc. complete as directed.		
	(a) plain/ ground glass	Sq.M.	529.00
	(b) tinted glass	Sq.M.	632.00
23	Providing and fixing 10 mm thick particle board of approved manufacture with lamination on both sides for partition, doors including necessary fastenings etc. complete as directed.	Sq.M.	528.00
24	Providing and fixing in position 580 mm (23") long approved white glazed vitreous China ware w.c. pan with raised white glazed foot-rests, earthen ware 'P' trap with vent connection and connecting to 100 mm (4") soil pipe outside by means of 100 mm CI soil plug bend of required length and vent connected to anti-siphonage pipe by 32 mm dia PVC pipe upto required level with all necessary fittings including removing existing pan etc. and providing brick bat coba in bedding, backing and in entire sunken portion etc. and reinstating the same etc. complete as directed.		
	(a) Indian Style w.c. pan	Each	3,114.00
	(b) Orissa pattern w.c. pan	Each	3,234.00
25	Providing and laying waterproofing treatment to mori, bath and w.c. consisting of smooth plaster in CM (1:3) over a layer of brick bat coba in CM (1:3) of required thickness and 25 mm thick IPS (1:2:3) including adding waterproofing compound of approved quality at the rate of 1 Kg. per bag of cement complete in all respects as directed (Payment will be made for plan area).	Sq.M.	483.00
26	Providing and erecting bamboo's double scaffolding of required height, width and strength by sides of building for platform to enable departmental workmen to carry out repairs to building at any level from ground to any floor height as directed	Sq.M.	54.00

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Sr. No.	Item Description	Unit	Rate in ₹
	including removing the same and clearing the site. The scaffolding to be retained for 3 days excluding the days of erecting and dismantling.		
27	Stopping leakages in joints of sanitary and waste water pipe system by removing carefully chokes from the pipes and fittings fixed on building at any height including necessary scaffolding/ jhula etc. complete as directed.	Each	121.00
28	Cleaning thoroughly the roof gutters of various sheds and warehouses including transporting and disposing the debris, kutchra etc. anywhere outside the MbPT Estate etc. complete as directed.	Mtr.	13.00
29	Dammering the roof in two coats with mixture of tar and pitch on new dongri cloth, one coat on each side of cloth including removing carefully the old dammering etc. complete as directed.	Sq.M.	80.00
30	Providing and applying waterproof roofing compound of approved make to the roofing nuts and bolts of various sheds and warehouses including removing and cleaning loose old compound etc. complete as directed.	Each	5.00
31	Removing carefully the damaged man-hole inspection chamber, water gully frame and cover and transporting the same to the sectional office of MbPT as directed etc. complete.	Each	131.00
32	Fixing only CI or RCC frame and cover over the existing man-holes including demolition of required portion of masonry and re-building the damaged portion of the masonry including providing PCC (1:1.5:3) for coping of required thickness including form work vibrating and curing etc. complete as directed (The frame and cover will be supplied by the MbPT. The contractor has to transport including loading and unloading the same from block yard/ anywhere in MbPT estate).	Each	225.00
33	Providing and fixing plain/ ground glasses of 4 mm thick to window shutters, louver windows as per required size on various floors of sheds, warehouses and any other structures including necessary scaffolding, new pins/ screws, putty etc. complete as directed including removing the broken glasses from the windows alongwith old putty and transport debris to nearest dust bin etc. complete as directed.	Sq.M.	737.00
34	Providing and fixing tar felt in 2 layers, each layer of tar felt over a layer of hot bitumen/ coal pitch including removing the old tarfelt & decayed cloth etc. complete as directed.	Sq.M.	261.00

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Sr. No.	Item Description	Unit	Rate in ₹
35	Providing and fixing new CI single 'Y' junctions including eye lids in place of old broken 'Y' junctions including removing the old junction and making it leak proof by filling cement/ cement mortar including necessary scaffolding etc. at any height complete as directed.		
	(a) 75 mm dia.	Each	592.00
	(b) 100 mm dia.	Each	658.00
36	-- do -- -- do -- double 'Y' junctions -- do -- -- do -- as per Item No.35 above.		
	(a) 75 mm dia.	Each	872.00
	(b) 100 mm dia.	Each	988.00
37	-- do -- -- do -- bends/ 'T's upto any height -- do -- -- do -- as per Item No.35 above.		
	(a) 75 mm dia.	Each	548.00
	(b) 100 mm dia.	Each	641.00
38	Removing and re-fixing kerb stones/ cement concrete blocks to the required line and level, pointing with CM (1:3), curing etc. complete as directed (concrete will be paid separately).	Mtr.	49.00
39	Removing carefully the existing corroded m.s. frame and covers of RCC hume pipe water storage tanks located on terraces of various buildings, breaking the concrete around the frame, transporting the covers and frames to Stores Department's disposal yard or any where in Port Trust Estate for handing over the covers and frames to MbPT, preparing the surface with 1:3 cement mortar to receive new frame and cover and making good the damage done to RCC tank (if any) including removing and re-fixing m.s. ladder wherever existing etc. complete as directed (New frame & cover will be supplied by MbPT).	Each	284.00
40	Providing and fixing 15 mm dia. brass nickel plated pillar tap (Heavy), tested by MCGM or bearing ISI mark complete as directed.	Each	259.00
41	Removing chokes in sewer line of dia. upto 300 mm by manual rodding, mechanical choke removers if necessary, passing metal and coir ball through the drain so as to clean the pipe completely as directed.	Mtr.	35.00
42	Providing and fixing GI plain sheet of 20 gauge in chajjas at various floor levels of buildings with GI 'J' or 'L' hooks, nut bolts or screws as directed including providing aluminium rivets for the horizontal laps, applying two coats of oil paint over a coat of zinc chromate (yellow) primer on both sides of GI sheets including double scaffolding etc. complete (Laps will not be paid separately. Minimum horizontal lap 100 mm).	Sq.M.	810.00

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Sr. No.	Item Description	Unit	Rate in ₹
43	Removing and re-setting old sett stone pavement at places as directed with 25 mm sand floating and set in CM (1:3) including cement pointing etc. complete as directed.	Sq.M.	63.00
44	Welding to any type of structural steel works tack welding or stitch welding of 6 mm thick as per IS specification etc. complete as directed. (Note: Steel sections, angles, plates if necessary will be supplied free of cost by the MbPT. Contractor has to procure their welding plants. The item is in running Mtr. of weld length).	Mtr.	115.00
45	Cutting any type of structural steel works of any thickness by gas cutting complete as directed (Note: Gas cutting with acetelene oxygen set will have to be provided by the contractor. The item is in running Mtr. of cut length).	Mtr.	163.00
46	Racking out the cracks developed in the existing RCC structural members like beams, columns etc., making 'V' grooves and restoring by trowelling with epoxy mortar including necessary scaffolding to any height etc. complete as directed.	Mtr.	88.00
47	Dismantling the damaged hook bollards by excavating, breaking with compressor in granite stone coping, concrete etc. exposing nut bolts upto top of the old bollard, removing carefully the nuts and lifting the damaged bollard to the sectional store yard, transporting the new bollard from the departmental store yard (anywhere in MbPT) to site, fixing it on old holdings down bolts with nuts, washers etc. concreting the opening in quay wall in CC (1:1.5:2) with necessary form work, vibrating, curing etc. including any form work, welding, if necessary, stacking surplus excavated materials at site etc. complete as directed.	Each	16,298.00
48	Preparing, providing and fixing m.s. ring bolts 170 mm long of pyramid type, shape with square base, made out of 50 mm dia. m.s. bar including making/ drilling necessary hole in vertical sea facing wall face and fixing the ring bolts in CM (1:1) including necessary scaffolding/ jhula, curing etc. complete as directed.	Each	359.00
49	Providing and fixing PVC door of approved colours of 'SINTEX' make or equivalent consisting of shutter, frame made from extruded section of PVC suitably reinforced having an overall dimensions of 53X60 mm and panels of extruded plastic section 200X20 mm having a tongue and groove arrangement for inter locking including providing & fixing the door frame of extruded PVC section	Sq.M.	1,228.00

XXI - Miscellaneous Works

Sr. No.	Item Description	Unit	Rate in ₹
	suitably steel reinforced having 53X60 mm size including providing and fixing vision panel with figured glass as per manufacturers' specification including providing and fixing hold-fasts, hinges etc. complete as directed.		
50	Providing and fixing 30 mm thick factory made solid panel PVC door shutter consisting of frame made out of m.s. tubes of 19 guage thickness and size of 19X19 mm for styles and 15X15 mm for top and bottom rails. m.s. frame shall have a coat of anti-corrosive zinc chromate primer and shall be covered with 5 mm thick heat moulded PVC 'C' channel of size 30X50 mm forming styles and 5mm thick 75 mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 10 mm (5mmX2) thick 20 mm wide cross PVC sheet as gap insert for top rail and bottom rail. Panelling of 5 mm thick PVC sheet to be fitted in the m.s. frame welded/ sealed to the styles & rails with 30 mm wide 5 mm thick PVC sheet beading on either side and joined together with solvent cement adhesive etc. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' channel using PVC solvent cement adhesive complete as directed.	Sq.M.	2,536.00
51	Providing and fixing 30 mm thick factory made both side pre-laminated solid panel PVC door shutter consisting of frame made out of m.s. tubes of 19 guage thickness and size of 19X19 mm for styles, top and bottom rails. m.s. frame shall have a coat of anti-corrosive zinc chromate primer and shall be covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered @45 degrees angle on either side forming styles and 5mm thick 95 mm wide pre-laminated PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered @45 degrees angle on either side to form top and bottom rail and 115 mm wide pre-laminated PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered @45 degrees angle on either side to form lock rail. Top, bottom and lock rails shall be provided either side of the panel and 10 mm (5mmX2) thick 20 mm wide cross PVC sheet as gap insert for top rail and bottom rail. Panelling of 5 mm thick both sides pre-laminated PVC sheet to be fitted in the m.s. frame welded/ sealed to the styles & rails with 15 mm wide 5 mm thick PVC	Sq.M.	3,079.00

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Sr. No.	Item Description	Unit	Rate in ₹
	sheet beading on inner side and joined together with solvent cement adhesive etc. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' channel using PVC solvent cement adhesive complete as directed.		
52	Providing and fixing 35 mm thick factory made moulded door shutter consisting of solid core single leaf flush door of 30 mm thickness, lipped with 15 mm (5 mmX3) thick, 30 mm width on one style and top rail and 10 mm (5 mmX2) thick, 30 mm width on other style and bottom rail. The inner panel laminated with 2 mm thick moulded PVC sheet in different plain colours on one side and 2 mm plain PVC sheet on other side using rubber adhesive on flush door and cement adhesive on PVC lipping etc. complete as directed.	Sq.M.	3,131.00
53	Providing and fixing factory made PVC door frame of size 50X47 mm with a wall thickness of 5 mm made out of extruded 5mm PVC sheet cut at two corners and joined with two Nos. 150 mm long brackets of 15X15 mm m.s. square tubes. The two vertical door profiles are to be reinforced with 19X19 mm m.s. square tube of 19 guage, rubber gasket weather seal to be provided through out the frame. The door frame shall be fixed to the wall using 65/ 100 mm long m.s. screws through the frame using PVC fasteners. Minimum 4 Nos. screws for each vertical member and 2 Nos. for horizontal member to be provided complete as directed.		
	(a) Plain colour	Mtr.	359.00
	(b) Pre-laminated colour	Mtr.	405.00
54	Providing and fixing PVC sheet wall paneling of 5 mm thickness consisting of panels of size 1220X2440 mm stuck on inner frame work of 50 mm wide strips of 5 mm thick PVC sheet. The strips shall have a groove of 6 mm width and 1 mm deep at the center for sinking the head of the screw. The strips shall be fixed using 65 mm long screws through the groove in the strip using PVC fasteners. The distance between screws shall not be more than 200 mm. Strip of 5 mm thick 75 mm wide shall be stuck at the joints using solvent etc. complete as directed.	Sq.M.	1,310.00
55	Removing and re-fixing AC sheets in roof including providing & fixing 'J' or 'L' hooks, nut bolts, washers etc. including painting bottom portion of sheets by 2 coats of lime wash by scrapping, cleaning etc. complete as directed (AC sheets will be supplied by MbPT free of cost).	Sq.M.	111.00

XXI - Miscellaneous Works

Sr. No.	Item Description	Unit	Rate in ₹
56	Fabricating and fixing in position m.s. structural members including cutting, hoisting to position including bending, jointing by welding/ nut-bolting, painting 2 coats of approved synthetic enamel paint over a coat of zinc chromate (yellow) primer, necessary scaffolding etc. complete as directed (Steel will be supplied by MbPT, free of cost).	qntl.	1,159.00
57	Providing and fixing in position in roofing GI 'J' or 'L' bolts with nuts, bituminous washers etc. including removing old damaged bolts etc. complete as directed.	Each	18.00
58	Removing from roots the trees upto stem dia. of 500 mm carefully including necessary excavation, transporting the same carefully anywhere in MbPT Estate & replanting the same in new excavated pits of required size, filling the pit with red earth, manure, watering for one week etc. complete as directed.	Each	2,981.00
59	Cleaning the water tables along the road including transporting the debris outside the MbPT Estate as directed etc. complete.	Mtr.	13.00
60	Providing motor lorry of 3 to 5 tonnes capacity at Sectional Offices including driver, cleaner and three Mazdoors together with fuel & other consumable stores etc. for transport of different engineering materials, furniture etc. within MbPT Estate on any day etc. complete (Total run upto 40 Kms. per day).	Vehicle Day	2,783.00
61	Providing tempo with covered body of 2 tonnes capacity at sectional offices including driver, cleaner and three Mazdoors together with fuel & other consumable stores etc. for transport of different engineering materials, furniture etc. within MbPT Estate on any day etc. complete (Total run upto 40 Kms. per day).	Vehicle Day	1,342.00
62	Providing protruded band (vata) 200 mm wide & 60 mm avg. thick at the junction of GI sheet & vertical building face as per the site requirements in CM (1:3) with an interface hack-aid plast bond between old & new surface before plastering including preparation of concrete surface to receive vata etc. complete as directed.	Mtr.	94.00
63	(a) Providing and laying special waterproofing layer with 22 to 35 mm thick machine cut rough shahabad stones of approved size (approx. 450X600 mm) set in CM (1:5) 25 to 40 mm thick with approved waterproofing compound and cement pointing in CM (1:1) with addition of	Sq.M.	639.00

XXI - Miscellaneous Works

Sr. No.	Item Description	Unit	Rate in ₹
	waterproofing compound including providing IPS (1:2:3) 40 mm average thick above the Shahabad stones with addition of waterproofing compound including curing by ponding with water etc.complete as directed.		
	(b) Extra over rate for Item No.63 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement.	Sq.M.	11.00
64	Providing and fixing approved 304 grade stainless steel anchor/ split bolt using epoxy mortar, 'D' shakle of 50 mm size etc. complete using necessary scaffolding, working platform etc. complete as directed.		
	(a) 25 mm dia.	Each	5,434.00
	(b) 50 mm dia.	Each	10,135.00
	(c) 100 mm dia.	Each	26,540.00
65	Removing all plantation and vegetation, other growth along with roots including application of necessary chemical and herbicide as approved by site engineer and reinstating the disturbed surface providing and erecting necessary scaffolding/ jhulla etc. complete as directed (An area of 1X1 Mtr. will be considered as one spot).	Spot	87.00
66	Providing and fixing concertina coil fencing 610 mm dia. with 26/27 SWG barbed concertina strips 19 mm width and turn circles of 80 Nos. coil in 8 to 9 Mtrs. length with 200 Nos. of stainless steel clips etc. complete as directed.	Mtr.	199.00
67	Lifting the debris and other unserviceable materials using JCB and shifting the same out side MbPT estate or as directed using Dumper as directed by the Site Engineer and levelling the area etc. complete as directed.	Cu.M.	71.00
68	Cleaning of all toilet blocks once in every day of Port House, Thackersay House, Vijay Deep, Imperial Chambers, MbPT's office at 3rd floor of Krupanidhi building and Railway Manager's office building at Ballard Estate using white phenyl, cleaning with detergent powder and putting naphtalene balls at wash basins, urinals, and at nahani traps etc. and toilets shall be kept clean in office hours etc. complete as directed.	Day	1,130.00
69	Staircase cleaning of Port House, Thackersay House, Vijay Deep, Imperial Chambers, Railway Manager's office building at Ballard Estate, etc complete as directed.	Occasion	435.00

XXI - Miscellaneous Works

Sr. No.	Item Description	Unit	Rate in ₹
70	Removing existing bollard including removing nuts and washers of existing bollard's foundation bolts using chemicals, kerosene etc. and lifting bollard with the help of crane and shifting the bollard to the yard as directed etc complete.	Each	3,176.00
71	Fixing of new/ old bollard in position with the help of crane including transportation of bollard from stores to the site etc. complete as directed.	Each	9,862.00
72	Transporting rubber fender from store and fixing the same on wharf wall after making 4 Nos. 110 mm dia. holes, providing and fixing 100 mm dia. approved 304 grade stainless steel split bolts along with epoxy mortar, providing and fixing approved 50 mm dia. 'D' shackle, 6 Nos. 32 mm dia. safety chain about 6 Mtrs. long, 32 mm dia. 'D' shackle 2 Nos. etc. by using crane/ forklift, scaffolding, working platform etc. complete as directed.	Each	144,866.00
73	Transporting rubber fender from store and fixing the same on wharf wall after making 2 Nos. 110 mm dia. holes, providing and fixing 100 mm dia. approved 304 grade stainless steel split bolts along with epoxy mortar, providing and fixing approved 75 mm m.s. rod, providing and fixing approved 50 mm dia. 'D' shackle 4 Nos. 50 mm dia. safety chain about 4 Mtrs. long etc. by using crane/ forklift, scaffolding, working platform etc. complete as directed.	Each	108,892.00
74	Fixing in position 460 mm outer dia. 230 mm inner dia rubber fender with chain of 30 mm dia. with 'D' shackle 30/25 mm dia. all hot dipped galvanised (min. 75 micron) including drilling holes in masonry/ RCC, cutting the rubber fender to required size at site including loading, unloading transporting the fender at site from MbPT yard, hoisting in position including dismantling existing bolt/ chain etc. wherever directed and transporting and stacking the same as directed anywhere in MbPT estate.		
	(a) 3.3 Mtrs. long	Each	36,989.00
	(b) 2.0 Mtrs. long	Each	22,418.00
75	Transporting and fixing tubular rubber fender 300X150X1700-3000 mm long or any available size at existing location using existing chain, bolts etc. with the help of crane, forklift, working platform, scaffolding etc. complete as directed.	Each	728.00
76	Removal of rank vegetation including all types of shrubs/ grass/ all sorts of creepers, plants upto a height of 2.4 Mtrs. under growth etc. by cutting to the level of natural ground and remove it by		

XXI - Miscellaneous Works

Sr. No.	Item Description	Unit	Rate in ₹
	lorries to any place outside MbPT estate and dispose it off in any manner etc. and leave the site clear etc. complete as directed.		
	(a) 1st occasion	Sq.M.	1.55
	(b) 2nd occasion	Sq.M.	1.32
	(c) 3rd occasion	Sq.M.	1.12
77	Credit for purchase of vegetation cut under Item No.77 above (for each occasion and this amount to be recovered from the contractor).	Sq.M.	0.07
78	Providing and fixing in position RCC pre-cast posts of size 0.105X0.095X2.15 Mtrs. at the spacing of 2.5 Mtrs. centres including 4 main bars m.s. reinforcement of 6 mm dia. and 6 mm dia. stirrups @500 mm centers etc. including fasteners complete as specified and as directed (excavation and concrete will be paid separately).	Each	321.00
79	Prepare and clean the RCC surface and applying two coats of waterproofing coating of lump free consistant slurry of polyalk WP and cement in proportion of (1:1.25) by weight at 24 hours interval between each coat to the horizontal area and 300 mm above the surface on side walls etc., air cure the surface for 24 hours and then sprinkle cure with water for 3-4 days with gunny bags etc. complete as directed.	Sq.M.	224.00
80	Removing and re-fixing chain link fencing including stacking the same if required as directed.	Mtr.	341.00
81	Stopping leakage of bath or w.c. using white M-seal by filling of the joints of tiles, traps, gaps between door frame and tiles etc. as directed.	per bath/ w.c.	255.00
82	Re-laying of crane track in proper alignment and level including necessary packing, base course etc. complete as directed.	Mtr.	340.00

XXII - Restorative Repair Works

Sr. No.	Item Description	Unit	Rate in ₹
1	Exposing existing old & worn out RCC column, beams and slabs etc. upto the main reinforcement carefully by means of chisel and hammer including necessary scaffolding, stacking the same on ground in the compound etc. complete as directed (surface area exposed after final chipping, chiselling etc. will only be measured and paid for).	Sq.M.	65.00
2	Removing existing waterproofing layer including brickbat coba & stacking the debris on ground in the compound etc. complete as directed.	Sq.M.	96.00
3	Removing existing plaster carefully for RCC/ brick work including removing wall fixtures, scaffolding etc. complete as directed.	Sq.M.	50.00
4	Removing existing waterproofing treatment inside the overhead tank -- do -- do -- as per Item No.2 above.	Sq.M.	96.00
5	Removing existing flushing tank carefully including brackets and disconnecting and re-connecting existing fittings, if necessary etc. complete as directed.	Each	132.00
6	Removing existing RCC jalli work carefully and stacking the same etc. complete as directed.	Sq.M.	50.00
7	Providing & placing broken glass in plinth protection etc. complete as directed.	Kg.	17.00
8	Removing existing corrosion in m.s./ tor steel bars by means of suitable light tapping, wire brushing and applying suitable chemicals viz.'Rusticide', 'Rust converter' and leaving for 24 hours, wash the deposits with water on next day etc. complete as directed.	Lit.	151.00
9	Providing and applying epoxy resin and hardener in ratio of 2:1 by wt. of Sunepoxy 358 or equivalent as per manufacturers specification after cleaning the existing surface from dust/ loose particles by applying air by air blowers under pressure etc. complete as directed.	Sq.M.	102.00
10	(a) -- do -- do -- do -- hack-aid plast -- do -- do -- as per Item No.9 above.	Sq.M.	45.00
	(b) -- do -- do -- do -- Polyalk EP -- do -- do -- as per Item No.9 above.	Sq.M.	62.00
	(c) -- do -- do -- do -- hack-aid plast - special -- do -- do -- as per Item No.9 above.	Sq.M.	58.00
11	Trowelling the existing prepared surface by means of cement concrete i.e.1:2:3 using river sand after application of hack-aid plast/ epoxy resin as per site condition/ instruction, necessary curing etc. complete including finishing the surface to key coat etc. complete as directed (Hack-aid plast & epoxy resin shall be paid separately).	Sq.M.	306.00

XXII - Restorative Repair Works

Sr. No.	Item Description	Unit	Rate in ₹
12	Providing and applying epoxy mortar consisting of epoxy resin, hardner & quartz sand in the proportion of (100:55:850) by weight or Sunepoxy 358 or equivalent over a bonding coat while the bonding coat is wet & tacky to existing exposed concrete surface at places where large chunks of concrete had deteriorated etc. complete as directed (Net epoxy mortar shall be paid and bonding coat will be paid separately).	Kg.	71.00
13	Providing and fixing polished shahabad stone 22 to 35 mm thick for flooring in CM (1:5) with cement pointing etc. using river sand complete as directed.	Sq.M.	383.00
14	Supplying and fixing ground glass louvered windows with louvers 4 mm thick and 12.5 to 15 cm wide spaced 5 to 6.5 cm vertical distances apart as directed with 7.5X7.5 cm teak wood frame etc. complete as directed including m.s. bar of 12 mm dia. as existing as per site.	Sq.M.	3,541.00
15	Removing carefully existing door shutter (single) or window shutters (pair) excluding teak wood frame and stacking the same etc. complete as directed.	Each	72.00
16	Removing carefully existing door or window wooden frame and stacking the same etc. complete as directed.	Each	64.00
17	Re-fixing of existing doors single shutter or pair of window shutters with necessary rectification including cutting decayed teak wood portion, fixing with new heavy duty iron oxidised fixtures viz.hinges, handles and sliding bolts etc. complete as directed.	Each	443.00
18	Supplying & fixing plain aluminium sheets (22 gauge) to bath and w.c. door shutters at bottom 20 cm on both sides etc. complete as directed.	Sq.M.	375.00
19	Re-fixing existing teak wood window or door frames after rectification including cutting decayed teak wood portion and fixing with new heavy duty iron fixtures and hold-fasts including applying coal tar to the surfaces coming in contact with masonry etc. complete as directed.	Each	174.00
20	Removing and re-fixing IRC mesh with new nails and new teak wood battens of size 40X10 mm etc. complete as directed.	Sq.M.	123.00
21	Providing and fixing chicken mesh jalli at the junction of RCC beam and brick work (outside only) etc. complete as directed.	Sq.M.	28.00
22	Re-using old serviceable teak wood work available from site of work complete as directed.	Cu.M.	5,259.00

XXII - Restorative Repair Works

Sr. No.	Item Description	Unit	Rate in ₹
23	Providing and applying polymer modified cement mortar in proportion of 1(Polymer): 5(Cement): 15 (Quartz sand) by weight with water cement ratio of 0.35 including application of bonding coat using brush in ratio 1(Polymer): 1(Cement):0.35 (Water) by weight including cleaning the surface with air mixed with water under pressure and subsequent layer upto 10 mm after hardening etc. complete as directed (Polymer manufactured by Sunanda, Pidilite, Fosvoc, Acro-chem, Build-core as approved by the Engineer).	Kg.	26.00
24	Removing carefully existing sink/ wash basins with fittings etc. and stacking the same at site of work etc. complete as directed.	Each	90.00
25	Re-fixing existing old GI pipes of any size with new fittings, clamps, etc. complete as directed.	Mtr.	79.00
26	Providing and laying cement concrete of grade (1:2:4) for flooring etc. using river sand including necessary shuttering, curing etc. complete as directed.	Cu.M.	3,958.00
27	(a) Providing and laying reinforced cement concrete of grade M20 (1:1.5:3) using river sand for encasing the existing RCC columns/ beams etc. including necessary scaffolding, supporting existing structures, shuttering, vibrating, curing but excluding reinforcement etc. complete as directed.	Cu.M.	7,507.00
	(b) Extra over rate for Item Nos.27 (a) above for adding admix corrosion inhibiting admixer Polyalk CP-293 or equivalent procured from approved manufacturer @500 ml. per bag of cement as per maker's specifications.	Cu.M.	810.00
28	Providing and fixing shear connectors to old columns, beams to be jacketed including drilling holes to old columns or beams fixing 12 mm dia. bars of 150 to 200 mm length with epoxy mortar (Sunepoxy 358 or equivalent) etc. complete as directed.	Each	68.00
29	Providing and applying cement plaster in CM (1:4) proportion using river sand including neeru finish, re-fixing of wall mounted existing wooden fixtures and coats of white or colour wash etc. complete as directed.		
	(a) upto 20 mm thick	Sq.M.	276.00
	(b) upto 10 mm thick	Sq.M.	133.00
	(c) Extra over rate for Item No.29 above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.		
	(i) upto 20 mm thick	Sq.M.	9.00
	(ii) upto 10 mm thick	Sq.M.	5.00

XXII - Restorative Repair Works

Sr. No.	Item Description	Unit	Rate in ₹
30	(a) Indian Patent Stone (IPS) flooring of grade (1:2:4) using river sand 40 mm thick average finished to smooth surface including mixing with red oxide and marking lines/ squares and adding plasticisers approved by the Site In-charge etc. complete as directed.	Sq.M.	229.00
	(b) Extra over rate for Item No.30 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of concrete.	Sq.M.	16.00
31	(a) Sand faced plaster in double coat of cement mortar (1:3) proportion 20 mm thick using river sand and filling brick joints prior to plastering, scaffolding etc. complete as directed.	Sq.M.	282.00
	(b) Extra over rate for Item No.31 (a) above for adding necessary waterproofing compound 1 Kg. per cement bag.	Sq.M.	11.00
	(c) Extra over rate for Item No.31 (a) above for adding admix shrinkage compensating admixture Sunplex (330 gms.) or equivalent per bag of cement of cement mortar.	Sq.M.	16.00
32	Removing existing Indian Patent Stone (IPS) flooring and stacking the same etc. complete as directed.	Sq.M.	39.00
33	Removing existing GI pipes and fittings of any size including necessary scaffolding etc. complete and stacking the same as directed.	Mtr.	14.00
34	Removing existing tap of any size carefully and handing over the same to the MbPT authorities etc. complete as directed.	Each	15.00
35	Providing and laying waterproofing treatment to the mori, bath, w.c. etc. using river sand including smooth plaster in CM (1:3) over a layer of cement slurry and one coat of polycoat SS in flooring and dado including necessary brick bat coba in CM (1:3) of required thickness 25 mm thick IPS (1:2:3) including addition of approved quality waterproofing compound etc. complete as directed (Payment will be made for plan area).	Sq.M.	573.00
36	Making groove in RCC structure up to 50 mm deep using electrically operated grinder machine, scaffolding etc. complete as directed.	Mtr.	44.00
37	Providing and fixing galvanised m.s. split bolts 20 mm dia. 150 mm long to the concrete/ stone masonry or wherever directed including drilling holes using compressor, fixing with epoxy mortar etc. complete as directed.	Each	116.00

XXII - Restorative Repair Works

Sr. No.	Item Description	Unit	Rate in ₹
38	Providing and fixing in position 20 mm GI grouting pipe by making hole using drilling machine in RCC member/ masonry upto required depth and fixing the grouting pipe using epoxy putty/ M-seal etc. complete as directed.	Each	59.00
39	Providing and grouting polymer (Polyalk EP or equivalent), cement and water at the ratio of 1:3:2 by weight and grouting shall be done using hand grouting machine till refusal, curing the area by spray etc. complete as directed.	Kg. of cement	98.00
40	Sealing the cracks in walls, RCC members etc. externally or internally at any floor level with the use of scaffolding or Jhulla for the crack width up to 20 mm using suitable crack fill material of cement and fine quartz sand putty including necessary addition of chemical in the proportion of 1:1 or as per manufacturer's instruction, properly grouting into cracks after necessary cleaning including applying two coats (100 mm width) of Polyalk WP of approved brand over sealed crack or as directed etc. complete (Payment shall be made in running meter of sealed crack).	Mtr.	69.00
41	Providing and applying black coloured epoxy putty such as M-seal or other approved brand etc. complete as directed.	Mtr.	18.00
42	Providing and applying white coloured epoxy putty such as M-seal or other approved brand etc. complete as directed.	Mtr.	19.00
43	Providing and grouting with cement and water and grouting shall be done using hand grouting machine till refusal as directed, curing the area by water spray etc. complete as directed.	Kg. of cement	24.00
44	Providing a lump free consistant slurry of rust passivating coating of 1 Kg. of Polyalk Fixoprime or equivalent mixed with 1.25 Kgs. of cement without adding water and applying the same in 2 coats by brush to the derusted steel surfaces with an interval of 24 hours (The slurry prepared shall be applied within 30 minutes) including scaffolding etc. complete.	Kg.	146.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

All the Permanent Way materials viz.rails, sleepers and other fixtures shall be supplied by MbPT unless and otherwise specifically mentioned.			
Sr. No.	Item Description	Unit	Rate in ₹
1	Loading and unloading of stone ballast/ rubble/ aggregate/ stone dust/ sand/ murrum etc. by wagons, either at different intervals or along the track, with 50 Mtrs. lead and all lift involved for loading & unloading. The depot of the material is not to be made etc. complete.	Cu.M.	295.00
2	Loading/ unloading of stone ballast/ rubble (size upto 450 mm)/ aggregate (size upto 90 mm)/ stone dust/ sand/ murrum etc. by wagons either from stacks at different locations or from material lying along the tracks/ from wagons and making depots of material etc. with a lead of 50 Mtrs. and all lift etc. complete.		
	(a) for loading	Cu.M.	162.00
	(b) for unloading	Cu.M.	162.00
3	Loading/ unloading of serviceable/ unserviceable/ old rails, crossings, stock rails, tongue rails etc. of any size and section into wagons either from stack of rails or from rails lying along the tracks/ from wagons and stacking the material etc. with 100 Mtrs. lead and all lift etc. complete (Note: One crossing will be considered equal to one 13 metres of rail).		
	(a) for loading	Mtr.	28.00
	(b) for unloading	Mtr.	28.00
4	Loading into wagons the standard line serviceable wooden/ steel/ CI sleepers either from the stack of sleepers or from sleepers lying along the tracks with 50 Mtrs. lead and all lift etc. complete.	Each	14.00
5	Unloading from wagons the standard line serviceable wooden/ steel/ CI sleepers including stacking them into stacks of not more than 15 Nos. of sleepers per stack with 50 Mtrs. lead and all lift etc. complete.	Each	21.00
6	Loading into wagons the new/ old/ serviceable/ unserviceable crossing sleepers either from the stack of sleepers or from sleepers lying along the tracks with 50 Mtrs. lead and all lift etc. complete.	Each	17.00
7	Unloading from wagons the new/ old/ serviceable/ unserviceable crossing sleepers including stacking them into stacks of not more than 15 Nos. of sleepers per stack with 50 Mtrs. lead and all lift etc. complete.	Each	23.00
8	Loading into wagons the standard line old/ unserviceable wooden/ steel/ CI sleepers either from the stack of sleepers or from sleepers lying along the tracks with 50 Mtrs. lead and all lift etc. complete.	Each	13.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
9	Unloading from wagons the standard line old/ unserviceable wooden/ steel/ CI sleepers including stacking them into stacks of not more than 15 Nos. of sleepers per stack with 50 Mtrs. lead and all lift etc. complete.	Each	20.00
10	Loading into wagons the mono block concrete sleepers either from the stack of sleepers or from sleepers lying along the tracks with 50 Mtrs. lead and all lift etc. complete.	Each	85.00
11	Unloading from wagons the mono block concrete sleepers including stacking them into stacks of not more than 10 Nos. of sleepers per stack with 50 Mtrs. lead and all lift etc. complete.	Each	98.00
12	Loading into wagons excavated earth/ debris/ kutchra/ refuse, etc. either from the stacks along the railway track or from the heaps of the accumulated debris lying along the track/ unloading from wagons including levelling the area properly etc. with a lead of 50 Mtrs. and all lift etc. complete.		
	(a) for loading	Cu.M.	174.00
	(b) for unloading	Cu.M.	174.00
13	Loading debris/ kutchra/ refuse etc. mixed with night soil into railway wagons either from the stacks along the railway track or from the heaps of the accumulated debris lying along the track/ unloading from wagons and spread uniformly over the area with a lead of 50 Mtrs. and all lift etc. complete.		
	(a) for loading	Cu.M.	198.00
	(b) for unloading	Cu.M.	198.00
14	Transport anywhere in MbPT Estate by lorries monoblock concrete sleepers including loading and unloading with a lead of 50 Mtrs. and all lift including stacking the sleepers in stacks, each stack of not more than 10 sleepers, etc. complete (Note: Distance of removal is from any point between Ballard Pier and Raoli Junction).	Each	199.00
15	Laying & assembly of turnout (1 in 8 1/2 or 1 in 12) on wooden/ steel/ CI sleepers in position in straight or curved or on the existing alignment as per specified drawing inclusive of all fittings, cutting, drilling, fixing bearing plates & packing the crossing sleepers to the specified gauge & level etc. complete (Note: The rate is inclusive of transport of small fittings & fixtures from MbPT Railway Stores to site. Transporting of rails & sleepers will be paid separately).		
	(a) 90R/ 52kg.	Set	28,292.00
	(b) 75R/ 75 lbs.	Set	21,945.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
16	Laying & assembly of turnout 90R/ 52kg. (1 in 8 1/2 or 1 in 12) on wooden/ steel/ CI sleepers including checkrailing of the whole assembly in position in straight or curved or on the existing alignment as per specified drawing inclusive of all fittings, cutting, drilling, fixing bearing plates & packing the crossing sleepers to the specified gauge & level etc. complete (Note: The rate is inclusive of transport of small fittings & fixtures from MbPT Railway Stores to site. Transporting of rails & sleepers will be paid separately).		
	(a) 90R/ 52kg.	Set	45,661.00
	(b) 75R/ 75 lbs.	Set	35,618.00
17	Dismantling of turnout in open (1 in 8 1/2 or 1 in 12) on wooden/ steel/ CI sleepers, removing the crossing sleepers, levelling the formation and stacking the released materials in MbPT Railway Engg. stores etc. complete as directed.	Set	8,668.00
18	Dismantling of turnout in paved & checkrailed (1 in 8 1/2 or 1 in 12) on wooden/ steel/ CI sleepers, removing the crossing sleepers, levelling the formation and stacking the released materials in MbPT Railway Engg. Stores etc. complete as directed.	Set	9,130.00
19	Assembling, fixing & erecting standard buffer stop with rails, gusset plates, buffer blocks etc. including all cutting, drilling, bending, necessary spreading of ballast etc. also including the transport of all fixtures and fittings of the buffer stop from MbPT Railway Stores to the site etc. complete as directed. The ballast will be supplied by MbPT at a lead of 50 Mtrs.	Set	4,417.00
20	Dismantling of buffer stop including separating all fixtures and fastenings etc. transporting all the dismantled materials to MbPT Railway Stores etc. complete as directed.	Set	651.00
21	Dismantling and removing the existing MbPT B.G. Railway tracks in open including necessary excavation in any strata upto the required depth including dismantling and seperating rails, sleepers (wooden/ steel), fish-plates, fish-bolts, dog-spikes, steel keys, bearing plates and other fixtures and fastenings including cutting rails, bolts etc. cleaning them free of any materials including stacking and transporting the dismantled materials to MbPT Rly. stores/ yard as directed etc. complete (Note: The railway tracks are generally in foul areas covered with night soil, garbage, kutchra etc. Before starting the work the	Track Mtr.	167.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
	contractors shall engage his own sweepers/ labour for cleaning these foul areas and for which no extra payment shall be made to the contractors. The rate under this item is inclusive of all such expenditure).		
22	Dismantling and removing the existing MbPT B.G. Railway tracks in paved area including necessary excavation in any strata upto the required depth including dismantling and seperating rails, sleepers (wooden/ steel), fish-plates, fish-bolts, dog-spikes, steel keys, bearing plates and other fixtures and fastenings including cutting rails, bolts etc. cleaning them free of any materials including stacking and transporting the dismantled materials to MbPT Rly. stores/ yard as directed etc. complete (Note: The railway tracks are generally in foul areas covered with night soil, garbage, kutchra etc. Before starting the work the contractors shall engage his own sweepers/ labour for cleaning these foul areas and for which no extra payment shall be made to the contractors. The rate quoted by the contractors under this item deemed to be inclusive of such expenditure).	Track Mtr.	228.00
23	Removing and inserting 52Kg./ 90 R/ 75R free rails with all necessary fittings & fixtures on existing wooden/ steel/ CI sleepers at any density, linking the rails with fish plates and fastenings, levelling & gauging etc. complete. Transport of old/ new rails from and to MbPT Railway Stores will be paid separately.	Mtr.	31.00
24	Removing 52Kg./ 90R/ 75R rails from the track including separating all fittings & fixtures, cutting of rails or bolts, if required, cleaning of rails, stacking the dismantled materials at a lead of 50 Mtrs. etc. complete (Transport of dismantled materials to MbPT Railway Stores will be paid separately).	Mtr.	13.00
25	Inserting 52Kg./ 90R/ 75R free rails with all necessary fittings & fixtures on existing wooden/ steel/ CI sleepers at any density, linking the rails with fish plates and fastenings, levelling & gauging etc. complete (Transport of old/ new rails from and to MbPT Railway Stores will be paid separately).	Mtr.	20.00
26	Removing 52Kg./ 90R/ 75R rails from check railed track including separating all fittings & fixtures, cutting of rails or bolts, if required, cleaning of rails, stacking the dismantled materials at a lead of 50 Mtrs. etc. complete excluding the transport of dismantled materials to MbPT Railway Stores.	Mtr.	19.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
27	Inserting 52Kg./ 90R/ 75R free rails in check railed tracks with all necessary fittings & fixtures on existing wooden/ steel/ CI sleepers at any density, linking the rails with fish plates and fastenings, levelling & gauging etc. complete excluding the transport of old/ new rails from and to MbPT Railway Stores.	Mtr.	21.00
28	Pulling back of rails (Creep adjustment) of 150 mm including squaring of sleepers removing & re-fixing dog spikes, keys, etc. cutting, drilling holes, linking the rails, fixing fish plates, oiling rail joints, re-fixing creep etc. complete.	Track Mtr.	41.00
29	Laying/ linking of track complete with rails, sleepers, fastenings including rail cutting and drilling holes wherever necessary gauging, lifting, levelling packing with two rounds, aligning with all lead and lift complete as directed. All fixtures such as dog spikes, bearing plates, steel keys etc. will be supplied by MbPT at MbPT Stores and the rate shall include transporting of such fixtures etc. (Transporting of rails and sleepers only will be paid separately under relevant items).	Track Mtr.	587.00
30	Fixing of check rails of any section on existing track on wooden sleepers including drilling of holes at 1 Mtr. interval on both main & check rails, joining of check rails with fish plates, distance blocks and bolts, cutting of rails wherever necessary changing of existing bearing plates with check plates, plugging of old holes etc. including transport of fittings & fixtures to site from MbPT Railway Stores. (Transport of rails will be paid separately under relevant item).	Track Mtr.	345.00
31	Cleaning checkrail channels with scrappers etc. removing the debris, kutchra, etc. from the channels and collecting the same in heaps and transport by carts/ other mode to suitable sites within a lead of 100 Mtrs. as directed etc. complete.	Track Mtr.	10.00
32	Spreading ballast on the railway tracks from ballast depots with a lead of 100 Mtrs. and all lift etc. complete.	Cu.M.	114.00
33	Screening of the ballast including removing the ballast from the permanent way either by rakes or manually upto a depth of 80 mm below the sleeper bottom, screen it by means of suitable screens so as to remove all the fine sizes, earth, etc. separate from the coarse ballast including making depots of the salvaged ballast and making heaps of the discarded fines and debris etc. with a lead of 50 Mtrs. and all lift etc. complete as directed.	Sq.M.	59.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
34	First round of through packing of existing track on wooden/ steel/ CI sleepers including spacing of sleepers, squaring, gauging, spiking, aligning, levelling & carting, lifting & packing, giving a general lift as desired to eliminate bays on second day of deep screening and including re-packing of joint sleepers dressing & boxing of ballast profile etc. complete.	Track Mtr.	50.00
35	Second round of through packing of existing track on wooden/ steel/ CI sleepers including spacing of sleepers, squaring, gauging, spiking, aligning, levelling & carting, lifting & packing, giving a general lift as desired to eliminate bays on second day of deep screening and including re-packing of joint sleepers dressing & boxing of ballast profile etc. complete so as to make the track fit for a speed of 30 Kmph.	Track Mtr.	36.00
36	Cutting of rails 75lbs/ 75R/ 90R/ 52Kgs. perfectly to full depth with contractor's hacksaw blade and tools at site/ depot/ yard.	Cut	333.00
37	Cutting of foot of rails by gas cutting or any other approved method (for check rails) with contractor's tools & plant at site or at store.	Mtr.	262.00
38	Drilling of 32 mm dia. holes in rails of all section either manually or by drilling machine to correct spacing specified by the Engineer.	Each	185.00
39	Removing from the permanent way standard line wooden/ steel/ CI sleepers alongwith fittings & fixtures for renewals including excavation upto the required depth in any strata and stacking the surplus excavated material neatly near the site (lead 50 Mtrs.), transporting the fitting & fixtures to MbPT Railway Stores and stacking the sleepers etc. as directed within a lead of 100 Mtrs. Transport of sleepers to MbPT Railway Stores will be paid separately under the relevant item.		
	(a) renewals not involving deep screening	Each	32.00
	(b) renewals involving deep screening	Each	27.00
40	Extra over rate for Item Nos.39 (a) or (b) above for the removal of crossing sleepers of any size from the track.	Each	17.50
41	Inserting in the railway tracks wooden/ steel/ CI sleepers, fixing them to the rails in the permanent way with fittings and fixtures including auguring in wooden sleepers for spikes, screws etc. plugging old holes, fixing bearing plates wherever necessary including carrying out through ballast, packing with new ballast or available ballast (lead 50 Mtrs.) including dressing of the ballast etc.		

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
	complete (Note: Insertion of sleepers will be considered as through sleeper renewal if sleepers of more than 13 Mtrs. continuous track is being inserted. All fixtures such as dog spikes, steel keys, bearing plates, etc. will be supplied by MbPT at MbPT Railway Stores. The rate is inclusive of transport of these fixtures and fittings to site from MbPT Railway Stores. Transport of sleepers from Stores to site will be paid separately under relevant item).		
	(a) for through sleeper renewal	Each	43.00
	(b) for casual renewal	Each	51.00
42	Extra over rate for Item Nos.41 (a) or (b) above for insertion of crossing sleepers of any size.	Each	39.00
43	Removing from the permanent way mono block concrete sleepers for through sleeper renewal/ casual renewal alongwith fittings & fixtures for renewals including excavation upto the required depth in any strata and stacking the surplus excavated materials neatly near the site (lead 50 Mtrs.), transporting the fittings & fixtures to MbPT Railway Stores and stacking the sleepers etc. as directed within a lead of 100 Mtrs. Transport of sleepers to MbPT Railway Stores will be paid separately under the relevant item.		
	(a) for through sleeper renewal not involving deep screening	Each	100.00
	(b) for through sleeper renewal/ casual renewal involving deep screening	Each	50.00
44	Inserting in the railway tracks mono block concrete sleepers for through or casual sleeper renewal, fixing them to the rails in the permanent way with fittings and fixtures including fixing liners & pandral clips in proper position and gauging perfectly including carrying out through ballast packing with new ballast or available ballast (lead 50 Mtrs.) including dressing of the ballast etc. complete (Note: All fixtures such as liners, pandral clips, etc. will be supplied by MbPT at MbPT Railway Stores. The rate is inclusive of transport of these fixtures and fittings to site from MbPT Railway Stores. Transport of sleepers from Stores to site will be paid separately).	Each	128.00
45	Lifting of existing track consisting of any track structure other than concrete sleepers in open upto height of 6" including spreading of ballast from existing ballast or ballast supplied by MbPT within a lead of 100 Mtrs. including one round of packing, aligning, squaring of sleepers, gauging,	Track Mtr.	137.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
	boxing, etc. complete (Note: This item may be operated on paved track. For this the contractor will be paid necessary excavation under relevant item).		
46	Squaring of sleepers wooden/ steel/ CI including spiking, putting keys, replacing bearing plates if necessary, plugging of old holes with wooden plug etc. complete as directed.	Each	21.00
47	Lubricating rail joint of any section by removing all bolts & nuts etc. complete (Lubricating oil will be supplied by MbPT free of cost from Rly. Engg. Stores).	Joint	29.00
48	Lubricating point & crossing assembly by removing all the kutchra, dust and cleaning switch portion etc. complete.	Set	76.00
49	Unloading of standard line wooden sleepers from the lorries and stacking as directed within the lead of 100 Mtrs. etc. complete.	Each	23.00
50	Laying B.G. Railway Track with checkrails in required alignment and level including transporting within site (lead 100 Mtrs.), main rails and checkrails including cleaning the release rails free from oil, asphalt and dust and fixing fish plates, bolts including cutting rails, drilling holes in main and check rails at every 1 Mtr. interval or as directed, oiling rail joints, fish plates and all types of bolts, aligning and levelling track by supporting wooden sleepers at suitable interval, fixing rails with dog spikes at proper gauge and removing wooden sleepers when directed and transporting the same to MbPT Railway Engg. Stores etc. complete (Note: All the permanent way fittings like fish plates, bolts etc. will be supplied at MbPT Rly. Engg. Stores, free of cost. Rails will be supplied free of cost and will be transported under the relevant item in the tender).	Track Mtr.	652.00
51	Transport of rails of 75R, 75lbs or 90R by lorries in pieces or in full length including switches and crossings and loading and unloading into and from lorries in MbPT area from Raoli Junction to Ballard Pier or as directed (Note: Crossing will be measured as 13.00 Mtrs. length).	Mtr.	31.00
52	Transport by lorries ballast stones including loading and unloading within lead of 100 Mtrs. etc. complete (Transport of ballast will be done within MbPT Estate from Ballard Pier to Raoli Junction).	Cu.M.	165.00
53	Transport by lorries standard lines wooden or steel sleepers including loading and unloading into/ from lorries within lead of 100 Mtrs. etc. complete (Transporting will be done in MbPT estate).	Each	30.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
54	Dismantling and removing the existing Railway track in unpaved area/ sub- strata including necessary excavation in any strata upto the required depth including dismantling and separating rails, sleepers (wooden/ steel), fish plates, fish bolts, dog spikes, steel keys bearing plates and other fixtures and fastenings inclusive of cutting rails, bolts etc. cleaning them free of any materials including stacking and transporting the dismantled materials to MbPT railway store yard as directed etc. complete.	Mtr.	129.00
55	Providing and fixing m.s. plate with nuts and bolts to rail joints etc. complete.	Joint	1,574.00
56	Providing and fixing m.s. nuts and bolts 100 mm long to rails etc. complete.	Each	98.00
57	Dismantling and removing the existing MbPT B.G. Railway tracks on concrete sleepers in open including necessary excavation in any strata upto the required depth including dismantling and separating rails, concrete sleepers, fish plates, fish bolts, and other fixtures and fastenings etc. including cutting rails, bolts etc. cleaning them free of any materials including stacking & transporting the dismantled materials to MbPT Railway store/ yard etc. complete as directed (Note: (i) The railway tracks are generally in foul area covered with night soil garbage, kutchra etc. Before starting the work, the contractors shall engage his own sweepers for cleaning these foul areas and for which no extra payment shall be made to the contractors. The rate under this item is inclusive of all such incidental expenditures and (ii)If the materials released are not required to be transported to stores a rebate of Rs.14.00 per R.M. for rails and Rs.15.00 per each sleeper will be deducted from the rate put to tender).	Track Mtr.	252.00
58	First round of through packing of existing track on concrete sleepers including spacing of sleepers, squaring, gauging, spiking, aligning, leveling, lifting & packing, giving a general lift as desired and including repacking of joints sleepers dressing and boxing of ballast profile etc. complete as directed.	Track Mtr.	63.00
59	Second round of through packing of existing track on concrete sleepers including spacing of sleepers, squaring, gauging, spiking, aligning, leveling, lifting & packing, giving a general lift as desired and including repacking of joints, sleepers, dressing and boxing of ballast profile etc. complete so as to make the track fit for a speed of 30 Kmph.	Track Mtr.	51.00

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
60	Cleaning and collection of kutchra/ industrial and domestic garbage/ dead bodies of stray dogs/ night soil/ sweepings from the MbPT Railway Tracks and adjacent area including cleaning adjacent gutters, drainage etc. and transporting and stacking the debris/ kutchra in heaps along railway tracks or any other related work as directed (Note: Cleaning and collection of kutchra shall be done on occasion basis by deploying 5 male mazdoors per occasion for full day).	Occasion	946.00
61	Oiling, removing carefully and re-fixing the pandrol clips, metal/ nylon liners on concrete sleepers to have correct gauge including fixing new pandrol clips and metal/ nylon liners wherever required as directed. New pandrol clips, metal/ nylon liners, lube oil for oiling the clips shall be supplied at PWI's stores and transporting the same to the work place shall be contractor's responsibility for which no extra payment will be made.	Track Mtr.	22.00
62	Checking gauges cross levels of tracks on wooden/ concrete sleeper track using contractor's own gauge and levels including all points and crossing and submitting the report as per proforma to J.E. in Raoli area on first of every month.	Occasion	1,518.00
63	Attending rail fracture including supplying of gas cutter set with welder for gas cutting of plates, fixtures and fastener, making holes, wherever required in MbPT estate as directed.	Job	858.00
64	Dismantling of turnout in open (1 in 8 ½ or 1 in 12) on concrete sleepers, removing the concrete sleepers leveling the formation and stacking the released materials in MbPT Railway Engg. Stores or as directed.	Set	15,510.00
65	Laying & assembly of turnout 52 kg. (1 in 8 ½ or 1 in 12) on concrete Sleepers in position in straight or curved or on the existing alignment as per specified drawing inclusive of all fittings, cutting, drilling, fixing bearing plates & packing the crossing sleepers to the specified gauge & level (Note: The rate is inclusive of transport of small fittings & fixtures from MbPT Railway Stores to site. Transporting of rails & sleepers will be paid separately).	Set	46,695.00
66	Uprooting rank vegetation such as all types of shrubs, undergrowth grass, all sort of creepers, plants, lump of shrubs etc. (Grownup upto 3 feet height) in Railway limits and any place outside Port Trust Estates and dispose it off in any manner as the contractor may desire and leave the site clear etc. complete as directed.	Sq.M.	5.70

**XXIII - Permanent Way Works
(Railway Engg. Section)**

Sr. No.	Item Description	Unit	Rate in ₹
67	Cutting of tree branches obstructing Railway, removing the same away from Railway tracks at lead of 200 m etc. complete as directed.	Occasion	1,628.00
68	Supply and spreading over the areas 'weedicide' of approved manufacturer and brand after cutting the vegetation as directed by Engineer In-charge (Note: (i)Required spray pump/ hand gloves/ masks etc. along with measuring flasks shall be procured by contractor. (ii)Due care shall be taken while spraying the 'weedicide' by the person handling as it could be poisonous and could be fatal if not handled properly. (iii)'Weedicide' shall be procured from Government authorised approved dealer).	Sq.M.	0.40
69	Removing of seized ERC from MCI inserts of existing track after heating the insert by oxyacetylene. Due care shall be taken to ensure no damage to the sleeper. Rate includes re-fixing of ERC with greasing of insert eye and the ERC (Grease will be supplied by Railway Engg. Division, MbPT).	Each	10.00

Input Data - Labour Rates

Annexure - II

Basic Labour Rates adopted for Rate Analysis for SOR 2011

Sr. No.	Category of Labour	Rate per Day in Rs.
1	EXCAVATOR	170.00
2	BREAKER	250.00
3	HOLE DRILLER	250.00
4	CHISELLER	170.00
5	BLACK SMITH Ist CLASS	250.00
6	BLACK SMITH 2nd CLASS	250.00
7	BLACK SMITH 3rd CLASS	225.00
8	BANDHANI (For lifting heavy materials).	200.00
9	CARPENTER Ist CLASS	300.00
10	CARPENTER 2nd CLASS	200.00
11	CARPENTER 3rd CLASS	200.00
12	MASON Ist CLASS	300.00
13	MASON 2nd CLASS	250.00
14	MASON 3rd CLASS	225.00
15	MAZDOOR (MALE)	170.00
16	MAZDOOR (FEMALE)	150.00
17	BHISTI	170.00
18	MATE (HELPER)	170.00
19	MAISTRY/MUCCADAM	350.00
20	PLUMBER Ist CLASS	300.00
21	PLUMBER 2nd CLASS	250.00
22	PLUMBER 3rd CLASS	225.00
23	TILER Ist CLASS (For laying Mangalore tiles).	275.00
24	TILER 2nd CLASS (For laying Mangalore tiles).	200.00
25	BELDAR	170.00
26	COOLIE	170.00
27	PAINTER Ist CLASS	250.00

Input Data - Labour Rates

Sr. No.	Category of Labour	Rate per Day in Rs.
28	PAINTER 2nd CLASS	250.00
29	PAINTER 3rd CLASS	170.00
30	WHITE WASHER/ WASHER	200.00
31	PUMP OPERATOR	170.00
32	MIXER OPERATOR	300.00
33	WELDER	250.00
34	FITTER Ist CLASS	300.00
35	FITTER 2nd CLASS	300.00
36	CHOWKIDAR	170.00
37	GLAZIER/ GLASS CUTTER	250.00
38	STONE CUTTER Ist class	250.00
39	STONE CUTTER IInd class	200.00
40	GANGMAN	170.00
41	SUPERVISOR	300.00
42	DRIVER (MOTOR LORRY)	300.00
43	CLEANER	230.00
44	OPERATOR - COMPRESSOR/ VIBRATOR	290.00
45	SAFAIWALA	170.00
46	PAVER - 'A' GRADE	200.00

Input Data - Material Rates

Annexure - I

Basic Material Rates adopted for Rate Analysis for SOR 2011

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
<u>SECTION - III</u> <u>EARTH WORK</u>			
1	Kail wood (for polling board)	Cu.M.	26,600.00
2	Murrum	Cu.M.	350.00
3	Bullies - 125 mm dia.	Mtr.	42.00
4	Good quality Murrum	Cu.M.	350.00
5	Transportation charges for debris/ kutchra	Cu.M.	320.00
<u>SECTION - IV</u> <u>PLAIN CEMENT CONCRETE (PCC) WORK</u>			
6	Stone aggregate/ chips (10/12 mm)	Cu.M.	780.00
7	Stone aggregate (20 mm - 40 mm)	Cu.M.	780.00
8	Coarse sand (River sand)	Cu.M.	1,350.00
9	Cement	MT	5,000.00
10	Rubble	Cu.M.	630.00
11	Pre-cast concrete block (solid) (1:2:4 mix.) (size 39 cm x 20 cm x 19 cm)	Each	47.00
12	Pre-cast concrete hollow blocks (1:2:4 mix) (size 39 cm x 10 cm x 19 cm)	Each	24.00
13	Pre-cast concrete hollow block (1:2:4 mix) (size 39 cm x 15 cm x 19 cm)	Each	29.00
14	Pre-cast concrete hollow blocks (1:2:4 mix) (size 39 cm x 20 cm x 19 cm)	Each	35.00
15	Marine plywood 9 mm thick	Sq.M.	363.00
16	Water proofing compound	Kg.	33.00
<u>SECTION - V</u> <u>CEMENT CONCRETE WORK IN RCC MEMBERS</u>			
17	Mild Steel	MT	29,513.00
18	HYD bars	MT	30,080.00
19	Carriage from Kalamboli to MbPT Estate (including loading, unloading)	MT	700.00
20	RCC pre-cast door frame - 100X63mm - 0.75X2.0 Mtrs. opening	Each	690.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
21	RCC pre-cast louvered window - 0.6X1.0 Mtr.	Each	426.00
22	Ground glass - 4 mm thick	Sq.M.	301.00
23	Polycrete micro-concrete	Kg.	21.00
24	Polycrete-A	Kg.	18.00
25	Sunepoxy 368/ Polyalk EP or equivalent (Epoxy bonding coat)	Lit.	204.00
26	Polyalk CP293	Lit.	184.00
27	Polytancrete NGT	Lit.	60.00
28	Ready Mix Concrete (RMC)		
a)	M-10 grade	Cu.M.	3,500.00
b)	M-20 grade	Cu.M.	4,134.00
c)	M-25 grade	Cu.M.	4,196.00
d)	M-30 grade	Cu.M.	4,444.00
e)	M-35 grade	Cu.M.	4,613.00
f)	M-40 grade	Cu.M.	4,826.00
29	Thermo mechanically treated (TMT) bars (reinforcement)	qntl.	3,952.00
30	Epoxy coating for TMT bars	qntl.	1,100.00
SECTION - VI BRICK WORK			
31	Common clay burnt bricks	1000 Nos.	3,500.00
32	Brick bats	Cu.M.	989.00
SECTION - VII STONE WORK			
33	Rubble	Cu.M.	630.00
34	Through Stone	Each	35.00
35	Trap Stone	Cu.M.	630.00
SECTION - VIII FLOOR FINISHING WORK			
36	Stone aggregate - 12.5 mm	Cu.M.	780.00
37	Stone ballast	Cu.M.	750.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
38	Water proofing compound	Kg.	33.00
39	Polyalk WP	Kg.	244.00
40	Pre-cast plain cement tiles - 250 X 250 mm - 20 mm thick		
a)	Grey color	Sq.M.	140.00
b)	Red/ Chocolate/ Fawn Yellow color	Sq.M.	161.00
c)	White/ Pink/ Green or Cream Yellow color	Sq.M.	172.00
41	Dark/ medium/ light shaded pigment	Kg.	36.00
42	White cement	Kg.	21.00
43	White pigment (Titanium Oxide)	Kg.	50.00
44	Pre-cast chequered cement tiles - 250 X 250 mm - 20 mm thick		
a)	Grey color	Sq.M.	145.00
b)	Red/ Chocolate/ Fawn Yellow color	Sq.M.	155.00
c)	White/ Pink/ Green or Cream Yellow color	Sq.M.	134.00
45	Pre-cast terrazo tiles - 22-25 mm thick chip size upto 6 mm - 250 X 250 mm size		
a)	Grey color	Sq.M.	157.00
b)	White/ light coloured	Sq.M.	181.00
46	Pre-cast heavy duty tiles - 25 mm thick - 250 X 250 mm		
a)	Grey color	Sq.M.	242.00
b)	Red/ Chocolate/ Fawn Yellow color	Sq.M.	290.00
c)	White/ Pink/ Green or Cream Yellow color	Sq.M.	327.00
47	Kota stone, 22-40 mm thick	Sq.M.	278.00
48	Tandur stone slabs of 22-40 mm thick	Sq.M.	194.00
49	Ceramic tiles - 30 cm X 30 cm	Sq.M.	315.00
50	Ceramic tiles	Sq.M.	315.00
51	Marble white tiles with grey veins - adanga commercial		
a)	Size: 0.45 X 0.45 Mtr.	Sq.M.	834.00
b)	Size: 0.60 X 2.00 Mtrs.	Sq.M.	966.00
c)	Size: 0.90 X 2.40 Mtrs.	Sq.M.	1,093.00
52	Marble chips	qntl.	1,000.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
53	Unslacked lime	qntl.	844.00
54	Marble powder (Rs.250.00 per 40 Kgs.)	Kg	6.00
55	Aluminium Strips	Kg.	151.00
56	Vinyl flooring - 3 mm thick	Sq.M.	423.00
57	Marble slab with Grey veins - 16 to 20 mm thick	Sq.M.	484.00
58	Marble slab		
a)	0.6 X 2 Mtrs.	Sq.M.	544.00
b)	0.90 X 2 Mtrs.	Sq.M.	665.00
59	Granite stone Red/ Black - 16 to 20 mm thick	Sq.M.	1,331.00
60	Brass frame	foot	40.00
61	Marbonite tiles - 800 mm x 800 mm or nearer (HR Johnson)		
a)	Special marble series	Sq.M.	944.00
b)	Classic marble series	Sq.M.	1,210.00
c)	Granite series	Sq.M.	1,549.00
62	Marbonite tiles - 600 mm x 600 mm or nearer		
a)	Special marble series	Sq.M.	544.00
b)	Classic marble series	Sq.M.	907.00
c)	Granite series	Sq.M.	1,150.00
63	China mosaic chips	Kg.	5.00
SECTION - IX PLASTERING & POINTING WORK			
64	Geru (Red Oxide)	MT	12,000.00
65	Gunmixaid	Kg.	52.00
66	Sunplex (Pouch of 330 grams)	Pouch	48.00
SECTION - X PAINTING & POLISHING WORK			
67	Lime	qntl.	844.00
68	Cement Primer	Lit.	96.00
69	Oil Bound Distemper	Kg.	45.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
70	Water proof cement paint (Colourcem/ Nitcocem/ Supremecem)	Kg.	36.00
71	Water proof cement paint (Snowcem Plus)	Kg.	38.00
72	Ready mixed primer (Red oxide)	Lit.	80.00
73	Plastic emulsion paint	Lit.	168.00
74	Synthetic flat paint	Lit.	145.00
75	Synthetic enamel paint	Lit.	162.00
76	Aluminium paint	Lit.	101.00
77	Velvet Paint	Lit.	338.00
78	Spirit	Lit.	45.00
79	Linseed oil	Lit.	95.00
80	Road marking paint	Lit.	135.00
81	Paint remover	Lit.	144.00
82	Kerosene oil	Lit.	33.00
83	Ready mixed wood primer for wood work	Lit.	106.00
84	Ready mixed primer (Red Oxide) to steel surface	Lit.	84.00
85	Whiting	Kg.	8.00
86	Polycoat-TST	Lit.	208.00
87	Water repellent S-101	Lit.	98.00
88	Exterior Grade 'Apex Acrylic' from Asian paints	Lit.	165.00
89	Sunext-8	Lit.	170.00
90	Exterior wall primer	Lit.	93.00
91	Yellow Zinc chromate primer (Rs.2812.40 per 20 lit.)	Lit.	141.00
92	Wood primer		
a)	White (Rs.2115/- per 20 lit.)	Lit.	106.00
b)	Pink (Rs.1980/- per 20 lit.)	Lit.	99.00
93	Sunnoflame	Kg.	305.00
94	Sandtex matt (Rs.3,825/- per 20 lits.)	Lit.	191.00
95	Polytext Finish (Rs.1000/- per bag of 25 Kgs.)	Kg.	40.00
96	Shellac/ Wood filler	Kg.	250.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
97	Exterior wall primer	Lit.	93.00
98	Touch Wood Polyurethene	Lit.	169.00
99	Hire charges for Polishing machine	Day	250.00
100	Plastic emulsion (Rs.3375/- per 20 lits.)	Lit.	169.00
101	Aluminium paint (Rs.2025/- per 20 lits.)	Lit.	101.00
102	Tuffkote Drinklon Aluminium Black Paint	Lit.	124.00
<u>SECTION - XI</u>			
<u>STEEL WORK</u>			
103	Steel members		
a)	R.S. Joists	qntl.	3,328.00
b)	ISMB – 100	qntl.	3,328.00
c)	ISMB – 300	qntl.	3,744.00
d)	ISMB – 450	qntl.	4,160.00
e)	ISMB – 600	qntl.	4,368.00
104	Flats	qntl.	3,425.00
105	Gusset plate (10mm thick)	qntl.	3,425.00
106	Holding down bolts	qntl.	8,840.00
107	m.s. Channels	qntl.	3,169.00
108	m.s. Grills fabricated		
a)	Weighing 15 – 20 Kgs. per Sq.M.	Sq.M.	1,075.00
b)	Weighing 20 – 25 Kgs. per Sq.M.	Sq.M.	1,375.00
c)	Weighing 25 – 30 Kgs. per Sq.M.	Sq.M.	1,675.00
109	Supply of steel windows including glazing and painting	Sq.M.	1,505.00
110	Plain glass per mm thickness	Sq.M.	77.00
111	Ready made steel door with hinges, Iron plug with nuts and spring to hold glass panels	Sq.M.	1,380.00
112	Bolts/ Rivetts	qntl.	8,800.00
113	Rolling shutter 20 guage	Sq.M.	2,147.00
114	Welding charge	Mtr.	75.00
115	Unserviceable rails	Mtr.	207.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
116	m.s. Angles	qntl.	3,004.00
117	Flats/ plates - 6mm thick	qntl.	3,425.00
118	m.s. double leaf sliding door	qntl.	4,700.00
119	Split bolt		
	a) 20 mm dia. 150 mm long	Each	39.00
	b) 16 mm dia. 125 mm long	Each	18.00
	c) 12 mm dia. 100 mm long	Each	9.00
120	Steel fabrication	Kg.	17.00
121	Carriage for steel members	qntl.	70.00
SECTION - XII WOOD WORK			
122	Second class Indian Teak Wood	Cu.M.	42,850.00
123	Iron oxidised butt hinges		
	a) 100 X 58 X 1.9 mm	Each	10.00
	b) 50 X 37 X 1.4 mm	Each	6.00
124	Particle board 12 mm thick	Sq.M.	409.00
125	Beading decorative (20 X 8 mm)	Mtr.	20.00
126	Curtain rod brackets	Each	9.00
127	Curtain channel	Mtr.	34.00
128	Decorative teak ply 12 mm thick with veneer on one face	Sq.M.	1,150.00
129	Anodized aluminium curtain rod - 16 mm dia.	Mtr.	36.00
130	Curtain rollers (Rs.360/- per 12 dozens)	Each	2.50
131	Curtain stop ends (Rs.720/- per 12 dozens)	Each	5.00
132	Decorative ply 4 mm thick	Sq.M.	266.00
133	Expanded metal 20 X 60 mm mesh 3.25 mm wide X 10 gauge	Sq.M.	109.00
134	Steel weld mesh (BRC) 3" X 1", 13 gauge X 9 gauge	Sq.M.	133.00
135	Bamboo mats (5' X 3' i.e.1.40 Sq.M.) - Each Rs.20/-	Sq.M.	14.00
136	Bamboo batten (8' to 12')	Mtr.	4.50

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
137	Brass single acting spring hinge		
a)	100 mm size (Rs.458/- per pair)	Each	229.00
b)	150 mm size (Rs.570/- per pair)	Each	285.00
138	Brass double acting spring hinge		
a)	100 mm long (Rs.547/- per pair)	Each	274.00
b)	150 mm long (Rs.672/- per pair)	Each	336.00
139	'Godrej' night latch	Each	530.00
140	Peep hole wide angle lens	Each	55.00
141	Hydraulic Door closure	Each	490.00
142	Door letter box plate (Brass) (200mm long)	Each	295.00
143	Iron oxidised pegs (hooks)(Rs.96/- per dozen)	Each	8.00
144	Anodized aluminium pegs (hooks)(Rs.126/- per dozen)	Each	10.50
145	T-hinges (100 X 250 X 2.24 mm)(Rs.420/- per dozen)	Each	35.00
146	Anodised brass pegs (hooks)(Rs.348/- per dozen)	Each	29.00
147	Brass metallic door stopper (Rs.1284/- per dozen)	Each	107.00
148	Aluminium metallic door stopper (Rs.432/- per dozen)	Each	36.00
149	Eye hook, m.s. oxidised		
a)	100 mm	Each	3.50
b)	150 mm	Each	4.50
c)	200 mm	Each	6.00
150	Eye hook, Brass Oxidised		
a)	100 mm (Rs.270/- per dozen)	Each	22.50
b)	150 mm (Rs.474/- per dozen)	Each	39.50
c)	200 mm (Rs.594/- per dozen)	Each	49.50
151	Eye hook, anodized aluminium		
a)	100 mm (Rs.148/- per dozen)	Each	12.00
b)	150 mm (Rs.177/- per dozen)	Each	15.00
c)	200 mm (Rs.204/- per dozen)	Each	17.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
152	Handles		
a)	Handles - Iron oxidised - 100 mm (Rs.95/- per dozen)	Each	8.00
b)	Handles - m.s. oxidised - 150 mm (Rs.122/- per dozen)	Each	10.00
c)	Handles - Brass oxidised		
	(i) 100 mm (Rs.540/- per dozen)	Each	45.00
	(ii) 150 mm (Rs.567/- per dozen)	Each	47.00
	(iii) 200 mm (Rs.648/- per dozen)	Each	54.00
d)	Handles - Anodized aluminium		
	(i) 100 mm (Rs.81/- per dozen)	Each	7.00
	(ii) 150 mm (Rs.162/- per dozen)	Each	13.50
	(iii) 200 mm (Rs.204/- per dozen)	Each	17.00
153	Aldrops		
a)	Aldrops - Iron oxidised with 12 mm rod		
	(i) 200 mm (Rs.621/- per dozen)	Each	52.00
	(ii) 250 mm (Rs.675/- per dozen)	Each	56.00
	(iii) 300 mm (Rs.744/- per dozen)	Each	62.00
b)	Aldrops - Brass oxidised with 12 mm rod		
	(i) 200 mm	Each	338.00
	(ii) 250 mm	Each	461.00
	(iii) 300 mm	Each	563.00
	(iv) 350 mm	Each	703.00
c)	Aldrops - Anodised aluminium with 12 mm rod		
	(i) 200 mm (Rs.840/- per dozen)	Each	70.00
	(ii) 250 mm (Rs.1107/- per dozen)	Each	92.00
	(iii) 300 mm (Rs.1170/- per dozen)	Each	98.00
154	Tower bolts		
a)	Tower bolts - Iron oxidised with 7 mm rod		
	(i) 100 mm (Rs.102/- per dozen)	Each	8.50
	(ii) 150 mm (Rs.162/- per dozen)	Each	13.50
	(iii) 200 mm (Rs.270/- per dozen)	Each	22.50
b)	Tower bolts - Brass oxidised with 8 mm rod		
	(i) 100 mm (Rs.840/- per dozen)	Each	70.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
	(ii) 150 mm (Rs.1284/- per dozen)	Each	107.00
	(iii) 200 mm (Rs.1620/- per dozen)	Each	135.00
c)	Tower bolts - Anodised aluminium		
	(i) 100 mm (Rs.243/- per dozen)	Each	20.00
	(ii) 150 mm (Rs.297/- per dozen)	Each	25.00
	(iii) 200 mm (Rs.351/- per dozen)	Each	29.00
155	Door latches		
a)	Door latches - Iron oxidised		
	(i) 200 mm (Rs.419/- per dozen)	Each	35.00
	(ii) 250 mm (Rs.516/- per dozen)	Each	43.00
	(iii) 300 mm (Rs.660/- per dozen)	Each	55.00
b)	Door latches - Brass oxidised		
	(i) 200 mm (Rs.1296/- per dozen)	Each	108.00
	(ii) 250 mm (Rs.1458/- per dozen)	Each	122.00
	(iii) 300 mm (Rs.2364/- per dozen)	Each	197.00
c)	Door latches - Anodised aluminium		
	(i) 200 mm (Rs.582/- per dozen)	Each	49.00
	(ii) 250 mm (Rs.783/- per dozen)	Each	65.00
	(iii) 300 mm (Rs.906/- per dozen)	Each	76.00
156	Door Stoppers		
a)	Door Stopper, Brass	Each	90.00
b)	Door Stopper, C.P. Brass	Each	101.00
c)	Door Stopper, Powder coated	Each	34.00
d)	Door Stopper, Aluminium	Each	29.00
157	Teak wood Lipping (3 mm)	Mtr.	22.00
158	Wire gauge	Sq.M.	495.00
159	Brass Screws		
a)	20 mm (Rs.12/- per dozen)	Each	1.00
b)	40 mm (Rs.40.80 per dozen)	Each	3.00
160	Battens (12X12 mm size)	Mtr.	10.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
161	Screws		
a)	40 mm	100 Nos.	62.00
b)	25 mm	100 Nos.	59.00
162	Sash bar	Mtr.	29.00
163	Decorative door shutter		
a)	40 mm thick	Sq.M.	1,391.00
b)	35 mm thick	Sq.M.	1,234.00
c)	30 mm thick	Sq.M.	1,174.00
d)	25 mm thick	Sq.M.	1,125.00
164	Non Decorative door shutter		
a)	40 mm thick	Sq.M.	731.00
b)	35 mm thick	Sq.M.	591.00
c)	30 mm thick	Sq.M.	538.00
d)	25 mm thick	Sq.M.	495.00
165	One face veneer & other face non-decorative		
a)	40 mm thick	Sq.M.	1,108.00
b)	35 mm thick	Sq.M.	950.00
c)	30 mm thick	Sq.M.	890.00
d)	25 mm thick	Sq.M.	841.00
166	C.P.M.S. Eye hook		
a)	4"	Each	7.00
b)	6"	Each	8.50
c)	8"	Each	11.00
d)	10"	Each	16.00
e)	12"	Each	22.00
167	Non decorative waterproof ply - 19 mm thick	Sq.M.	667.00
168	Aluminium Aldrop - 10" - 250 mm long	Each	163.00
169	Brass Aldrop - 10" - 250 mm long	Each	281.00
170	Teak wood bracket	Each	23.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
171	Aluminium tower bolt - 6" long	Each	95.00
172	Aluminium Peg	Each	9.00
173	Anodised Aluminium butt hinges 4"(Rs.608.40 per dozen)	Each	51.00
174	Brass hinges 100 X 58 X 19 mm(Rs.900/- per dozen)	Each	75.00
175	Decorative Teak ply waterproof - 6 mm thick	Sq.M.	726.00
176	Aluminium handle - 6" long	Each	13.00
177	G.I. Sheet Plain - 20 guage	Sq.M.	323.00
178	Towel rod Aluminium powder coated - 60 cm	Each	125.00
179	Towel rod Brass Chromium plated	Each	225.00
180	Hardner panel sheet	Sq.M.	352.00
181	Rubber Gasket	Mtr.	5.00
182	Stainless steel hinges heavy - 100 mm	Each	53.00
183	Aluminium channel - 6 mm	Mtr.	14.00
184	Aluminium section for sides of door	Mtr.	119.00
185	Aluminium section for middle portion of door	Mtr.	180.00
SECTION - XIII			
ROOFING WORK			
186	Mangalore tiles (Std. size)	100 Nos.	950.00
187	Red ochre paint	Kg.	30.00
188	Mangalore tile ridges	100 Nos.	3,375.00
189	A.C. Sheets - Plain/ Corrugated - 6 mm thick	Sq.M.	164.00
190	G.I. 'J'/'L' hooks with nuts & bolts - 8 mm dia.	Each	9.00
191	G.I. Washers	Each	0.50
192	Bitumen washers	Each	0.50
193	A.C. Sheets (semi corrugated) - 6 mm thick	Sq.M.	225.00
194	A.C. Closed fitting adjustable ridges - 6 mm thick	Pair	200.00
195	A.C. adjustable ridges - 1.22 Mtrs. length		
	a) Serrated ridges	Pair	176.00
	b) Unserrated ridges	Pair	194.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
196	A.C. North light two pieces adjustable ridges (1.22 Mtrs. length)	Pair	403.00
197	Plain A.C. Ridges (1.22 Mtrs. length)	Each	194.00
198	A.C. Air extractor (roof) (30" dia.)	Each	7,200.00
199	A.C. Cowl type ventilator	Each	194.00
200	A.C. Roof light	Each	837.00
201	A.C. Ridge finials	Pair	95.00
201	Apron flashing pieces (1.12 Mtrs. long)	Each	155.00
203	Eaves filler pieces (1.016 Mtrs. long)	Each	110.00
204	North light ventilator curves (1.016 Mtrs. long)	Each	229.00
205	'S' type louvers (1.83 Mtrs. long)	Each	121.00
206	G.I. Bolts - 10 mm dia. both side threaded with G.I. nuts	Each	11.00
207	G.I. Bolts - 16 mm dia. - 7 cm long with nuts	Each	20.00
208	Barge board		
	a) 2.44 Mtrs. length	Each	318.00
	b) 1.83 Mtrs. length	Each	239.00
209	Seam bolts, nuts - 6 mm dia., 25 mm long	Each	5.00
210	A.C. Socketed half round eaves gutter		
	a) 150 mm dia. - 1.83 Mtrs. length	Each	236.00
	b) 225 mm dia. - 1.83 Mtrs. length	Each	325.00
	c) 300 mm dia. - 1.83 Mtrs. length	Each	390.00
211	Plastic roofing compound	Kg.	93.00
212	Asbestos strips - 48 mm wide, 6 mm thick	Mtr.	121.00
213	A.C. Plain ended valley gutter		
	a) 400 X 125 X 250 mm	Each	570.00
	b) 450 X 125 X 150 mm	Each	500.00
	c) 600 X 150 X 225 mm	Each	663.00
214	G.I. Corrugated sheet - 24 gauge - (10' X 3')	Each	627.00
215	Plain G.I. Sheet - 20 gauge (8' X 4')	Each	730.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
216	m.s. flat iron bracket for half round gutter	Each	90.00
217	Union Clips		
a)	400 mm	Each	77.00
b)	450 mm	Each	105.00
c)	600 mm	Each	125.00
d)	900 mm	Each	175.00
218	AC rope	Mtr.	28.00
219	Transparent fibre glass sheet - 3 mm thick	Sq.M.	1,357.00
220	Compressor -Rental charges - with breaker & diesel	Day	1,700.00
221	Compressor operational charges	Day	150.00
<u>SECTION - XV</u>			
<u>ROAD WORK</u>			
222	Rubble stone for soling	Cu.M.	630.00
223	Stone dust	Cu.M.	700.00
224	Stone metal - 40 to 90 mm size	Cu.M.	710.00
225	Stone metal - 40 to 63 mm size	Cu.M.	710.00
226	Stone grit/ stine chips - 6 mm size	Cu.M.	700.00
227	Bitumen		
a)	60/70 grade	Kg.	35.19
b)	80/100 grade	Kg.	34.16
c)	30/40 grade	Kg.	37.03
228	Bitumen Primer	Lit.	50.00
229	Steam Coal	Kg.	10.00
230	Wire Brushes	Each	85.00
231	Soft Brushes	Each	40.00
232	Polythene sheet - 75 micron	Sq.M.	20.00
233	Pre-moulded asphalt filler - 18 mm	Sq.M.	665.00
234	H.D. bolts - 16mm dia., 350mm long	Each	50.00
235	Bullies (non-teak)		
a)	150 mm dia.	Mtr.	46.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
b)	125 mm dia.	Mtr.	58.00
c)	100 mm dia.	Mtr.	54.00
d)	80 mm dia.	Mtr.	50.00
e)	75 mm dia.	Mtr.	46.00
236	Sett Stone C. C.	Sq.M.	104.00
237	Road roller hire charges including diesel, driver, idle time etc.	Day	2,650.00
238	Boiler hire charges	Day	1,000.00
239	Mixer hire charges	Day	1,500.00
240	Diesel	Lit.	36.74
241	Kerb stone	Mtr.	140.00
242	Stone water table	Mtr.	150.00
243	Concrete Paver block grey color		
a)	60mm thick	Sq.M.	436.00
b)	80 mm thick	Sq.M.	484.00
244	Concrete Paver block any colour other than grey		
a)	60mm thick	Sq.M.	472.00
b)	80 mm thick	Sq.M.	516.00
245	Asphalt seal coat 7-8% bitumen 30-40 grade, 86-87% grit , 6% filler	MT	3,660.00
246	Vibratory roller hire charges	Day	8,800.00
247	Milling asphaltic surfaces upto 50 mm depth	Sq.M.	80.00
248	Hire charges for JCB with operator, diesel etc.	Day	6,000.00
249	Hire charges for Dumper lorry		
a)	With operator, diesel etc.	Day	4,000.00
b)	With operator, diesel etc.	Trip	2,000.00
250	Hire charges for Bulldozer TD 80 with 12' blade	Day	8,000.00
251	Hire charges for asphaltic plant	10 MT	5,000.00
252	Hire charges for asphaltic paver	Day	5,500.00
253	Hire charges for vacuum dewatering equipment	Day	5,500.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
SECTION - XVI SANITARY WORK			
254	Lead pipe - 32mm dia.	Mtr.	316.00
255	C.I. Bend - 100mm dia.	Each	340.00
256	C.I. Pipe - 100mm dia.	Mtr.	595.00
257	Cisterns		
a)	C.I. Cistern - 10 ltrs. Capacity with chain, handle, C.I. brackets, etc.	Each	1,265.00
b)	Chinaware flushing cistern - Low level	Each	1,974.00
c)	PVC flushing cistern - 5 ltrs. Capacity with ball value, chain, symphonic etc.	Each	850.00
d)	PVC flushing cistern - 10 ltrs. Capacity with ball value, chain, symphonic etc.	Each	827.00
e)	PVC automatic flushing tank - 5 Ltr. capacity	Each	349.00
f)	PVC automatic flushing tank - 10 Ltr. capacity	Each	439.00
258	Brass Stop cock - 15mm dia.	Each	169.00
259	PVC Pipe inlet to flushing cistern - 15mm dia.	Mtr.	40.00
260	Water closets		
a)	European w.c. with integral 'P'/ 'S' trap	Each	510.00
b)	Indian w.c. pan (580 mm) white with 'P' trap	Each	416.00
c)	Indian w.c. pan (580 mm) white with 'P' trap ('Hindustan' make)	Each	550.00
d)	Orissa pattern w.c. pan		620.00
261	Bowl type flat back urinal - 440 X 315 X 265 mm	Each	465.00
262	PVC drain pipe - 0.6 Mtrs. long	Each	40.00
263	Bowl type angle back urinal Size: 430 X 370 X 340 mm, with waste coupling	Each	765.00
264	Bowl type large flat urinal Size: 610 X 400 X 380 mm, with waste coupling	Each	1,835.00
265	White glazed chinaware wash hand basin		
a)	Size: 630 X 551 mm, with waste coupling	Each	1,645.00
b)	Size: 630 X 510 mm, with waste coupling	Each	1,645.00
c)	Size: 550 X 400 mm, with waste coupling	Each	570.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
d)	Size: 450 X 300 mm, with waste coupling	Each	435.00
e)	Size: 400 X 400 mm, with waste coupling	Each	455.00
266	Bottle trap	Each	325.00
267	Pillar tap	Each	168.00
268	Union - 15 mm & coupling	Each	31.00
269	White Chinaware laboratory sink 450 X 300 X 150 mm, with waste coupling	Each	1,180.00
270	Brass bib taps - 15 mm dia.	Each	80.00
271	Brass stop-cock - 15 mm dia.	Each	169.00
272	White glazed Chinaware kitchen sink		
a)	Size: 610 X 450 X 250 mm, with waste coupling	Each	3,106.00
b)	Size: 610 X 450 X 200 mm, with waste coupling	Each	2,832.00
273	C.I. Pipe outlet - 32 mm dia.	Each	184.00
274	Aluminium drain board - 600 X 450 mm	Each	426.00
275	Chromium plated brass towel rods - 20mm dia.	Mtr.	165.00
276	Chromium plated brass brackets	Pair	86.00
277	Stainless steel towel rods - 20mm dia.	Mtr.	55.00
278	Chromium plated m.s. brackets	Pair	63.00
279	Anodised aluminium towel rods - 20mm dia.	Mtr.	46.00
280	Anodised aluminium brackets	Pair	35.00
281	Plate glass mirror - Size: 600 X 450 mm bevelled edge with oil tampered hard board back	Each	350.00
282	Chromium plated glass shelf brackets	Pair	120.00
283	Glass 5 mm thick @Rs.77.40 per mm thickness	Sq.M.	387.00
284	PVC tooth brush & tumbler holder with brackets	Each	30.00
285	Brass robe hooks	Each	50.00
286	Vitreous Chinaware toilet paper holder	Each	250.00
287	Plastic soap container with brackets	Each	116.00
288	Plastic air-purifier container with bracket	Each	30.00
289	White colored plastic 'Commander' solid seats for European w.c. pan	Each	372.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
290	White Colored hollow seat cover to European w.c.	Each	250.00
291	C.I. soil pipe (s/s) (ISI marked) - length 1.8 Mtrs.		
a)	100 mm dia.	Each	1,082.00
b)	75 mm dia.	Each	927.00
292	C.I. bends		
a)	150 mm dia., 9" x 9"	Each	693.00
b)	100 mm dia., 9" x 12"	Each	452.00
c)	100 mm dia., 9" x 9"	Each	347.00
d)	75 mm dia., 9" x 12"	Each	406.00
e)	75 mm dia., 12" x 3"	Each	275.00
293	C.I. bend with door		
a)	100 mm dia.	Each	385.00
b)	75 mm dia.	Each	300.00
294	C.I. 'T' with door		
a)	100 mm dia.	Each	550.00
b)	75 mm dia.	Each	370.00
295	C.I. 'Y' Junction, double with door		
a)	100 mm dia.	Each	700.00
b)	75 mm dia.	Each	595.00
296	C.I. 'Y' Junction, single with door		
a)	100 mm dia.	Each	400.00
b)	75 mm dia.	Each	340.00
297	C.I. Rain water pipe (ISI marked) - 1.8 Mtrs. long		
a)	150 mm dia.	Each	1,572.00
b)	100 mm dia.	Each	919.00
298	C.I. Shoe		
a)	150 mm dia.	Each	410.00
b)	100 mm dia.	Each	177.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
299	A.C. Cowl		
a)	101.6 mm dia.	Each	37.00
b)	76.2 mm dia.	Each	29.00
c)	63.5 mm dia.	Each	24.00
d)	50.8 mm dia.	Each	20.00
300	House drain C.I. pipes (ISI marked) single socket 1.8 Mtrs. Long		
a)	100 mm dia.	Each	1,082.00
b)	150mm dia.	Each	1,952.00
301	A.C. soil pipe - 3 Mtrs. long		
a)	101.60 mm dia.	Each	117.00
b)	76.2 mm dia.	Each	101.00
c)	63.5 mm dia.	Each	94.00
d)	50.8 mm dia.	Each	86.00
302	A.C. 'Y' Junction double		
a)	101.60 mm dia. - 4"	Each	55.00
b)	76.2 mm dia. - 3"	Each	43.00
c)	63.5 mm dia. - 2.5"	Each	41.00
d)	50.8 mm dia. - 2"	Each	36.00
303	A.C. Bend 18" X 9"		
a)	101.6 mm dia.	Each	70.00
b)	76.2 mm dia.	Each	53.00
304	A.C. Bend 9" x 9"		
a)	63.5 mm dia.	Each	31.00
b)	50.8 mm dia.	Each	23.00
305	C.I. Nahani trap 80 mm (3") with CI/ CP 125 mm grating (perforated)	Each	140.00
306	C.I. circular (6") 150 mm grating with bars	Each	141.00
307	Union	Each	46.00
308	Coupling	Each	46.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
309	Foot rest	Pair	95.00
310	Flush valve	Each	880.00
311	Mosquito proof coupling (plastic)	Each	35.00
312	C.I./ m.s. bracket	Pair	81.00
313	Chromium plated glass shelf bracket	Pair	120.00
314	Chromium plated gratings	Each	23.00
315	PVC SWR pipe		
	a) 160 mm dia.	Mtr.	243.00
	b) 110 mm dia.	Mtr.	97.00
	c) 90 mm dia.	Mtr.	81.00
	d) 75 mm dia.	Mtr.	54.00
316	PVC SWR double 'Y' with door		
	a) 110 mm dia.	Each	162.00
	b) 90 mm dia.	Each	158.00
317	PVC SWR single 'Y' with door		
	a) 110 mm dia.	Each	127.00
	b) 90 mm dia.	Each	107.00
	c) 75 mm dia.	Each	72.00
318	PVC pipe connector 110 mm dia.	Each	98.00
319	PVC pipe clips		
	a) 110 mm dia.	Each	15.00
	b) 160 mm dia.	Each	25.00
320	PVC bend with door		
	a) 160 mm dia.	Each	208.00
	b) 110 mm dia.	Each	76.00
	c) 90 mm dia.	Each	66.00
	d) 75 mm dia.	Each	49.00
321	PVC Nahani trap - 4"	Each	49.00
322	PVC Jalli	Each	18.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
323	PVC flushing tank	Each	890.00
324	PVC grating	Each	38.00
325	PVC Inlet pipe - 15mm dia.	Each	45.00
326	PVC over-flow pipe	Each	25.00
327	Flexible PVC Inlet pipe - 15mm dia.	Each	30.00
328	Flexible PVC Outlet pipe - 40mm dia.	Each	35.00
329	PVC SWR door bend		
a)	110 mm dia.	Each	80.00
b)	75 mm dia.	Each	52.00
330	PVC door Cap		
a)	110 mm dia.	Each	33.00
b)	90 mm dia.	Each	33.00
c)	75 mm dia.	Each	23.00
331	PVC SWR vent cowl		
a)	110 mm dia.	Each	27.00
b)	90 mm dia.	Each	23.00
c)	75 mm dia.	Each	19.00
332	'P' trap earthen	Each	190.00
333	Brick bat coba	Cu.M.	2,412.00
SECTION - XVII			
WATER SUPPLY WORK - FITTINGS			
334	W.I. galvanised pipe 'B' Class, Medium		
a)	15 mm dia.	Mtr.	54.00
b)	20 mm dia.	Mtr.	68.00
c)	25 mm dia.	Mtr.	109.00
d)	32 mm dia.	Mtr.	130.00
e)	40 mm dia.	Mtr.	156.00
f)	50 mm dia.	Mtr.	198.00
g)	65 mm dia.	Mtr.	260.00
h)	80 mm dia.	Mtr.	328.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
335	W.I. galvanised pipe 'C' Class, Heavy		
a)	15 mm dia.	Mtr.	71.00
b)	20 mm dia.	Mtr.	88.00
c)	25 mm dia.	Mtr.	125.00
d)	32 mm dia.	Mtr.	156.00
e)	40 mm dia.	Mtr.	187.00
f)	50 mm dia.	Mtr.	250.00
g)	65 mm dia.	Mtr.	406.00
h)	80 mm dia.	Mtr.	468.00
i)	100 mm dia.	Mtr.	702.00
336	Brass Nickel bib taps of screw down pattern		
a)	15 mm dia.	Each	83.00
b)	20 mm dia.	Each	135.00
337	Brass stop cocks of screw down pattern		
a)	15 mm dia.	Each	169.00
b)	Brass ball valve - 20 mm dia.	Each	394.00
c)	Brass ball valve - 25 mm dia.	Each	540.00
d)	Brass ball valve - 32 mm dia.	Each	974.00
e)	Brass ball valve - 40 mm dia.	Each	1,468.00
f)	Brass ball valve - 50 mm dia.	Each	2,512.00
338	Gun metal valve gate type (Peet valve)		
a)	15 mm dia.	Each	180.00
b)	20 mm dia.	Each	276.00
c)	25 mm dia.	Each	416.00
d)	32 mm dia.	Each	520.00
e)	40 mm dia.	Each	731.00
f)	50 mm dia.	Each	936.00
g)	65 mm dia.	Each	1,872.00
h)	80 mm dia.	Each	2,600.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
339	G.I. wheel valve gate type with screwed female ends or flanged ends		
a)	25 mm dia.	Each	520.00
b)	32 mm dia.	Each	900.00
c)	40 mm dia.	Each	1,350.00
d)	50 mm dia.	Each	1,600.00
e)	65 mm dia.	Each	2,200.00
f)	80 mm dia.	Each	2,800.00
340	Brass ball valves with copper ball float		
a)	15 mm dia.	Each	192.00
b)	20 mm dia.	Each	203.00
c)	25 mm dia.	Each	250.00
d)	32 mm dia.	Each	416.00
e)	40 mm dia.	Each	520.00
f)	50 mm dia.	Each	884.00
g)	65 mm dia.	Each	1,456.00
341	Brass ball valves with polythene ball float		
a)	15 mm dia.	Each	203.00
b)	20 mm dia.	Each	281.00
c)	25 mm dia.	Each	394.00
d)	40 mm dia.	Each	731.00
e)	50 mm dia.	Each	2,025.00
342	Gun metal non-return valves - Vertical valves		
a)	15 mm dia.	Each	153.00
b)	20 mm dia.	Each	223.00
c)	25 mm dia.	Each	321.00
d)	32 mm dia.	Each	471.00
e)	40 mm dia.	Each	619.00
f)	50 mm dia.	Each	996.00
g)	65 mm dia.	Each	1,688.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
343	Gun Metal ferrules		
a)	15 mm dia.	Each	208.00
b)	20 mm dia.	Each	312.00
c)	25 mm dia.	Each	624.00
d)	32 mm dia.	Each	988.00
e)	40 mm dia.	Each	1,508.00
f)	50 mm dia.	Each	2,288.00
344	Spouts - 25 mm dia. - 'B' Class GI pipe - 450mm long	Each	18.00
345	Chromium plated brass push taps (bib tap)		
a)	10 mm dia.	Each	132.00
b)	15 mm dia.	Each	156.00
346	Polythene bib taps		
a)	15 mm dia.	Each	17.00
b)	20 mm dia.	Each	39.00
347	C.I. Lift-up waste preventive bib taps		
a)	15 mm dia.	Each	101.00
b)	20 mm dia.	Each	141.00
348	Chromium plated brass shower rose		
a)	125 mm dia.	Each	260.00
b)	150 mm dia.	Each	280.00
349	Gun metal foot valves with brass strainer screwed end		
a)	25 mm dia.	Each	302.00
b)	32 mm dia.	Each	394.00
c)	40 mm dia.	Each	506.00
d)	50 mm dia.	Each	731.00
e)	65 mm dia.	Each	1,353.00
f)	80 mm dia.	Each	1,716.00
350	C.I. foot valves with flanged ends heavy metallic		
a)	80 mm dia.	Each	3,220.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
	b) 100 mm dia.	Each	4,680.00
351	Gun metal globe type hydrant 65mm nominal bore outlet	Each	4,226.00
352	Dial pressure gauge (0-14 Kgs./Sq.cm)		
	a) 100 mm dia.	Each	338.00
	b) 150 mm dia.	Each	619.00
	c) 250 mm dia.	Each	1,575.00
353	C.I. Road box	Each	1,989.00
354	Surface box	Each	748.00
355	C.I. screwed flanges heavy		
	a) 25 mm dia.	Each	112.00
	b) 32 mm dia.	Each	146.00
	c) 40 mm dia.	Each	180.00
	d) 50 mm dia.	Each	281.00
	e) 65 mm dia.	Each	309.00
	f) 80 mm dia.	Each	337.00
	g) 100 mm dia.	Each	394.00
356	Chromium plated brass shower rose with ball and socket joints		
	a) 125 mm dia.	Each	489.00
	b) 150 mm dia.	Each	506.00
357	Gun metal non-return valves (ISI marked), Horizontal valves		
	a) 15 mm dia.	Each	197.00
	b) 20 mm dia.	Each	314.00
	c) 25 mm dia.	Each	476.00
	d) 32 mm dia.	Each	609.00
	e) 40 mm dia.	Each	1,055.00
	f) 50 mm dia.	Each	1,438.00
	g) 65 mm dia.	Each	2,500.00
358	Chromium plated brass stop cock - 15 mm dia.	Each	150.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
359	Chromium plated push type flush valve		
a)	25 mm dia.	Each	460.00
b)	32 mm dia.	Each	1,463.00
360	Vent pipe/ over-flow pipe		
a)	15 mm dia.	Each	28.00
b)	20 mm dia.	Each	45.00
c)	25 mm dia.	Each	90.00
d)	32 mm dia.	Each	141.00
e)	40 mm dia.	Each	225.00
f)	50 mm dia.	Each	253.00
g)	65 mm dia.	Each	437.00
361	GI pipe bends		
a)	15 mm dia.	Each	22.00
b)	20 mm dia.	Each	25.00
c)	25 mm dia.	Each	40.00
d)	32 mm dia.	Each	62.00
e)	40 mm dia.	Each	73.00
f)	50 mm dia.	Each	124.00
g)	65 mm dia.	Each	225.00
362	Brass mosquito-proof coupling		
a)	15 mm dia.	Each	32.00
b)	20 mm dia.	Each	28.00
c)	25 mm dia.	Each	30.00
d)	32 mm dia.	Each	86.00
e)	40 mm dia.	Each	102.00
f)	50 mm dia.	Each	219.00
g)	65 mm dia.	Each	276.00
363	CI over-flow pipe		
a)	80 mm dia.	Each	1,254.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
b)	100 mm dia.	Each	1,633.00
c)	150 mm dia.	Each	2,070.00
364	m.s. flanges		
a)	80 mm dia.	Each	160.00
b)	100 mm dia.	Each	219.00
c)	150 mm dia.	Each	408.00
365	Bolts & Nuts		
a)	16 mm dia. 60 mm long	Each	17.00
b)	20 mm dia. 65 mm long	Each	35.00
c)	20 mm dia. 70 mm long	Each	40.00
d)	20 mm dia. 75 mm long	Each	41.00
e)	20 mm dia. 80 mm long	Each	42.00
f)	24 mm dia. 85 mm long	Each	65.00
366	Rubber insertion	Each	23.00
367	Sliding bolts - Aluminium (Rs.580/- per dozen)	Each	48.00
368	Pillar tap - 15mm dia.	Each	250.00
369	Brass chromium plated bib tap - 15mm dia.	Each	160.00
370	CP waste coupling with PVC pipe	Each	80.00
371	UPVC /ASTM pipe		
a)	3" (80 mm) dia.	Mtr.	328.00
b)	2.5" (65 mm) dia.	Mtr.	256.00
c)	1.5" (40 mm) dia.	Mtr.	125.00
SECTION - XVIII			
C.I. WATER MAINS WORK - FITTINGS			
372	C.I. pipe - Class LA		
a)	80 mm dia.	Mtr.	778.00
b)	100 mm dia.	Mtr.	960.00
c)	125 mm dia.	Mtr.	1,490.00
d)	150 mm dia.	Mtr.	1,535.00
e)	200 mm dia.	Mtr.	2,243.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
f)	250 mm dia.	Mtr.	3,020.00
g)	300 mm dia.	Mtr.	3,890.00
h)	350 mm dia.	Mtr.	4,915.00
i)	400 mm dia.	Mtr.	5,970.00
j)	450 mm dia.	Mtr.	7,205.00
373	C.I. pipe - Class B, Flanged		
a)	80 mm dia.	Mtr.	1,524.00
b)	100 mm dia.	Mtr.	1,928.00
c)	150 mm dia.	Mtr.	3,154.00
d)	200 mm dia.	Mtr.	4,531.00
e)	250 mm dia.	Mtr.	6,134.00
f)	300 mm dia.	Mtr.	7,919.00
374	C.I. specials		
a)	Flanged upto 300 mm dia.	qntl.	5,400.00
b)	Socket end upto 300 mm dia.	qntl.	5,616.00
375	Spun yarn	Kg.	63.00
376	Fuel wood	qntl.	1,035.00
377	Kerosene oil	Lit.	33.00
378	Lead	Kg.	105.00
379	Rubber gasket - 3 mm thick	Each	62.00
380	Sluice valve with cap		
a)	80 mm dia.	Each	2,812.00
b)	100 mm dia.	Each	4,106.00
c)	125 mm dia.	Each	5,400.00
d)	150 mm dia.	Each	6,015.00
e)	200 mm dia.	Each	11,810.00
f)	250 mm dia.	Each	15,190.00
g)	300 mm dia.	Each	19,690.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
381	Sluice valve with gear wheel		
a)	300 mm dia.	Each	28,980.00
b)	350 mm dia.	Each	41,010.00
c)	400 mm dia.	Each	53,160.00
d)	450 mm dia.	Each	66,825.00
382	C.I. Non-return reflux valve		
a)	80 mm dia.	Each	2,923.00
b)	100 mm dia.	Each	4,329.00
c)	150 mm dia.	Each	6,607.00
d)	200 mm dia.	Each	11,315.00
e)	250 mm dia.	Each	17,770.00
f)	300 mm dia.	Each	21,570.00
g)	350 mm dia.	Each	31,625.00
h)	450 mm dia.	Each	48,300.00
383	Stand post hydrant - 63 mm dia.	Each	20,250.00
384	CI cap for riser with threads & CI threaded outlet	Each	5,175.00
385	Domestic water meter		
a)	15 mm dia.	Each	1,030.00
b)	20 mm dia.	Each	1,524.00
c)	25 mm dia.	Each	2,402.00
d)	40 mm dia.	Each	5,740.00
e)	50 mm dia.	Each	7,340.00
f)	80 mm dia.	Each	10,690.00
g)	100 mm dia.	Each	14,290.00
h)	150 mm dia.	Each	18,790.00
i)	200 mm dia.	Each	23,290.00
j)	250 mm dia.	Each	39,940.00
k)	300 mm dia.	Each	71,440.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
386	C.I. Strainer		
a)	15 mm dia.	Each	152.00
b)	20 mm dia.	Each	227.00
c)	25 mm dia.	Each	345.00
d)	32 mm dia.	Each	478.00
e)	40 mm dia.	Each	514.00
f)	50 mm dia.	Each	750.00
g)	80 mm dia.	Each	1,912.00
h)	100 mm dia.	Each	3,037.00
i)	150 mm dia.	Each	5,344.00
j)	200 mm dia.	Each	12,375.00
k)	250 mm dia.	Each	15,750.00
l)	300 mm dia.	Each	25,030.00
387	Ball valve/ Butterfly valve		
a)	80 mm dia.	Each	1,360.00
b)	100 mm dia.	Each	1,656.00
c)	150 mm dia.	Each	2,263.00
d)	200 mm dia.	Each	4,177.00
e)	250 mm dia.	Each	7,974.00
f)	300 mm dia.	Each	9,416.00
388	m.s. circular flange & bolt - 150 mm dia.	Each	35.00
389	Chemical bolt - 24 mm dia., 290 mm long	Each	1,725.00
390	C.I. Flange		
a)	80 mm dia.	Each	325.00
b)	300 mm dia.	Each	2,080.00
391	Ductile Iron (D.I.) pipe, K-9 grade		
a)	100 mm dia.	Mtr.	938.00
b)	150 mm dia.	Mtr.	1,433.00
c)	200 mm dia.	Mtr.	1,612.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
d)	250 mm dia.	Mtr.	2,427.00
e)	300 mm dia.	Mtr.	3,054.00
392	EPDM Push on gasket		
a)	for 100 mm dia. pipe	Each	31.00
b)	for 150 mm dia. pipe	Each	47.00
c)	for 200 mm dia. pipe	Each	63.00
d)	for 250 mm dia. pipe	Each	79.00
e)	for 300 mm dia. pipe	Each	94.00
393	Steel scaffolding	Sq.M.	69.00
394	Hack-saw blade	Each	300.00
SECTION - XIX			
WATER STORAGE TANKS WORK			
395	m.s. plate sheet - 5 mm thick	qntl.	3,425.00
396	Welding	qntl.	1,500.00
397	Drain plug	Each	69.00
398	Mastic bitumen paint	Sq.M.	35.00
399	Fabricated pressed steel tank with plates - 5 mm thick		
a)	1.25 X 1.25 X 1.25 Mtrs.	Each	40,250.00
b)	2.50 X 1.25 X 1.25 Mtrs.	Each	66,700.00
c)	2.50 X 2.50 X 1.25 Mtrs.	Each	101,200.00
d)	3.75 X 1.25 X 1.25 Mtrs.	Each	89,700.00
e)	3.75 X 2.50 X 1.25 Mtrs.	Each	126,500.00
400	Fabricated pressed steel plate 5 mm thick, 1.25 X 1.25 Mtrs.	Each	6,325.00
401	R.C.C. Hume pipe water tank		
a)	1438 litres capacity	Each	10,140.00
b)	2161 litres capacity	Each	14,020.00
c)	2575 litres capacity	Each	19,590.00
d)	4100 litres capacity	Each	22,670.00
e)	4660 litres capacity	Each	28,235.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
f)	5100 litres capacity	Each	37,500.00
402	m.s. cover with locking arrangement		
a)	475 mm dia.	Each	1,083.00
b)	525 mm dia.	Each	1,490.00
c)	600 mm dia.	Each	2,089.00
403	m.s. circular flange & bolt - 150 mm dia.	Each	35.00
404	C.I. cover 500 mm dia. for water tank	Each	604.00
405	HDPE overhead water tank	Litre	6.00
406	P.V.C mosquito-proof coupling		
a)	40 mm dia.	Each	8.00
b)	50 mm dia.	Each	9.00
407	C.I. frame for overhead tank cover		
a)	475 mm dia. (40% cost of Item No.402(a))	Each	430.00
b)	525 mm dia. (40% cost of Item No.402(b))	Each	600.00
c)	600 mm dia. (40% cost of Item No.402(c))	Each	840.00
408	C.I. cover for water storage tank		
a)	475 mm dia. (75% cost of Item No.402(a))	Each	810.00
b)	525 mm dia. (75% cost of Item No.402(b))	Each	1,120.00
c)	600 mm dia. (75% cost of Item No.402(c))	Each	1,570.00
409	Hoisting charges	qntl.	460.00
SECTION - XX DRAINAGE WORK			
410	Glazed stoneware pipe 600mm long 'A' grade		
a)	100 mm dia.	Each	40.00
b)	150 mm dia.	Each	60.00
c)	200 mm dia.	Each	136.00
d)	230 mm dia.	Each	145.00
e)	300 mm dia.	Each	276.00
411	Spun yarn/ plain gasket	Kg.	63.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
412	Stone ware 'S' or 'P' type gulley trap		
a)	Size: 150 X 150 mm with 100 mm outlet	Each	73.00
b)	Size: 225 X 225 mm with 150 mm outlet	Each	275.00
413	C.I. cover & frame - 228.6 X 304.8 mm	Each	178.00
414	C.I. grating	Each	104.00
415	PVC grating	Each	46.00
416	Stoneware glazed bend		
a)	100 mm dia.	Each	52.00
b)	150 mm dia.	Each	85.00
417	Intercepting sewer trap		
a)	150 mm dia.	Each	322.00
b)	230 mm dia.	Each	1,050.00
418	RCC NP-2 class pipe - 2 Mtrs. long with collars		
a)	100 mm dia.	Mtr.	130.00
b)	150 mm dia.	Mtr.	182.00
c)	250 mm dia.	Mtr.	297.00
d)	300 mm dia.	Mtr.	390.00
e)	450 mm dia.	Mtr.	754.00
419	C.I. steps	Each	347.00
	C.I. Diaphragm		
a)	450 X 450 mm	Each	288.00
b)	900 X 450 mm	Each	460.00
421	RCC NP-3 class pipe with collars		
a)	100 mm dia.	Mtr.	166.00
b)	150 mm dia.	Mtr.	234.00
c)	250 mm dia.	Mtr.	624.00
d)	300 mm dia.	Mtr.	702.00
e)	450 mm dia.	Mtr.	1,331.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
422	C.I. cover & frame - 900 X 450 mm		
a)	Medium duty - 100 Kgs.	Each	5,385.00
b)	Light duty - 50 Kgs.	Each	2,839.00
423	Pre-cast RCC (1:1.5:3) rectangular cover & frame 900 X 450 mm size with iron angle nosing		
a)	75 mm thick	Each	863.00
b)	100 mm thick	Each	1,081.00
424	Fibre reinforced rectangular frame & cover 900 X 450 mm size, 90-100 mm thick - 25 MT load bearing capacity	Each	3,450.00
425	Heavy duty, pre-cast RCC fibre reinforced concrete circular man-hole cover & frame clear opening - 540 mm - 35 MT load bearing capacity	Each	2,550.00
426	RCC fibre reinforced water gully frame & cover 450 X 450 mm opening size, 15 MT capacity	Each	1,150.00
427	RCC fibre reinforced water gully frame & cover 900 X 450 mm opening size, 15 MT capacity	Each	1,610.00
428	C.I. Circular cover & frame - 500 mm dia.		
a)	Medium duty - 116 Kgs.	Each	6,750.00
b)	Heavy duty - 229 Kgs.	Each	12,400.00
429	C.I. rungs for man-holes - 5.1 Kgs. each	Each	357.00
430	RCC rectangular grating 150 mm X 300 mm X 25 mm thick	Each	58.00
431	A.C. vent pipe - 100 mm dia.	Mtr.	40.00
432	C.I. soil pipe - 150 mm dia.	Mtr.	690.00
433	RCC pre-cast water gully cover - 100 mm thick		
a)	450 x 450 mm	Each	3,144.00
b)	900 x 450 mm	Each	6,288.00
434	C.I. frame & cover - Size: 600 x 600 mm - 100 Kgs.	Each	6,425.00
435	C.I. Pipe - 150 mm dia. - 2.74 Mtrs. long	Each	3,410.00
436	C.I. Bend - 150 mm dia.	Each	751.00
437	C.I. Cover and lid	Each	345.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
SECTION - XXI			
MISCELLANEOUS WORK			
438	Dry stone rubble	Cu.M.	630.00
439	Stone dust	Cu.M.	700.00
440	Plastic coated brass wire 3 mm thick	Mtr.	4.60
441	G.I. barbed wire (IS:278 – 1962 Type-I) 100 mm points, strands at 150 mm pitch	Kg.	53.50
442	Iron hook	Each	2.00
443	Venetian blinds - Aluminium - Horizontal blinds	Sq.M.	541.00
444	Anodised aluminium grills	Sq.M.	688.00
445	Aluminium 'T' section - 38 X 38 mm, 1.5 mm thick	Mtr.	52.00
446	Acoustic tile - 600 X 600 mm	Each	116.00
447	Glass wool	Sq.M.	151.00
448	'J' Bolts	Each	7.00
449	Anodised aluminium sections	Kg.	253.00
450	PVC sheet		
	a) 2 mm thick	Sq.M.	426.00
	b) 3 mm thick	Sq.M.	506.00
	c) 5 mm thick	Sq.M.	713.00
	d) 5 mm thick - both sides pre-laminated	Sq.M.	960.00
451	Solvent cement adhesive	Lit.	270.00
452	GI screws - 16X6 mm (Rs.53/- per dozen)	Each	4.00
453	Transparent acrylic sheet - 4 mm thick	Sq.M.	753.00
454	Dongri cloth	Sq.M.	8.00
455	Tar	Kg.	36.00
456	Sandtex matt	Lit.	172.00
457	Apex paint	Lit.	155.00
458	Touch wood	Lit.	155.00
459	G.I. chain link		
	a) 50 X 50 mm opening - 10 gauge	Sq.M.	127.00
	b) 25 X 25 mm opening - 10 gauge	Sq.M.	266.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
460	Extruded aluminium sections for doors, windows and partitions	Kg.	151.00
461	Hydraulic Door closure	Each	460.00
462	Mortice lock - Godrej make	Each	668.00
463	Aluminium hinges - 125 mm	Each	43.00
464	Rubber gasket	Mtr.	4.00
465	Adhesive	Lit.	201.00
466	Plain/ ground glass - 4 mm thick	Sq.M.	327.00
467	Plain/ ground glass - 5 mm thick	Sq.M.	399.00
468	Tinted glass - 5 mm thick	Sq.M.	484.00
469	'Z' pins (Rs.3.50 per dozen)	Each	0.30
470	Particle board - 9-10 mm thick Lamination on both sides	Sq.M.	424.00
471	Hoisting charges	qntl.	460.00
472	Tar-felt	Sq.M.	50.00
473	Transport of debris by lorries	Day	2,500.00
474	Hire charges for Crane	Day	2,415.00
475	Coal tar	Lit.	40.00
476	Concertina coil G.I. 610 mm dia.	Mtr.	146.00
477	G.I. mesh	Sq.M.	667.00
478	Hire charges chain, pulling wire & gas cutter	Day	345.00
479	RCC post - Size: 0.105 X 0.095 X 2.15 Mtrs.	Each	260.00
480	Polyalk WP	Kg.	272.00
481	Drilling holes in stone - upto 300 mm depth		
	a) 30 - 32 mm dia.	Each	250.00
	b) 63 - 65 mm dia.	Each	500.00
	c) 118 - 120 mm dia.	Each	2,500.00
482	Stainless steel anchor bolt		
	a) 25 mm dia.	Each	2,610.00
	b) 50 mm dia.	Each	6,410.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
c)	100 mm dia.	Each	16,850.00
483	m.s. chain - hot dipped galvanized to min.85 microns		
a)	25 mm dia.	Mtr.	2,335.00
b)	32 mm dia.	Mtr.	3,830.00
c)	50 mm dia.	Mtr.	9,223.00
484	'D' shackle - hot dipped galvanized to min.85 microns		
a)	20/25 mm dia.	Each	650.00
b)	32/35 mm dia.	Each	874.00
c)	50/56 mm dia.	Each	3,347.00
485	Central Rod - 75 mm dia.	Each	7,000.00
486	G.I. sheet - 20 guage	Sq.M.	323.00
487	Bamboo for scaffolding	Each	75.00
488	Coir rope	Kg.	45.00
489	m.s. ring bolts - 170 mm long	Each	90.00
490	'Sintex' PVC Door - 6' X 2' = 1.8 X 0.6 Mtrs. = 1.08 Sq.M. (Rs.1045/- per door of 6' X 2' i.e. 1.08 Sq.M.)	Sq.M.	968.00
491	Hire charges for motor lorry - 3 to 5 Ton capacity	Day	2,500.00
492	Hire charges for Tempo - 2 Ton capacity - Cover body	Day	1,200.00
493	Hire charges for gas cutting set, cylinder, welding machine, working platform, tools	Day	3,000.00
494	Hire charges for gas cutting set, cylinder, tools	Day	1,800.00
495	White phenyl	Lit.	19.00
496	Naphthalene balls	Kg.	140.00
497	Toilet cleaning powder	Kg.	35.00
498	M-seal	Kg.	203.00
499	Black M-seal	Kg.	186.00
500	White M-seal	Kg.	203.00
501	Polyfill - AR	Kg.	155.00
502	Polyabres	Kg.	19.00
503	Duckback-S	Lit.	210.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
504	Dr.Fixit Raincoat	Lit.	225.00
505	Dr.Fixit torch shield rolls	Sq.M.	200.00
506	Suncoat	Lit.	225.00
507	Dr.Fixit Newcoat	Lit.	210.00
508	Primeseal (Primer)	Lit.	178.00
509	CR 80 grade rail	qntl.	3,772.00
SECTION - XXII			
RESTORATIVE REPAIRS WORK			
510	Aluminium sheet - 24 gauge	Sq.M.	225.00
511	Chicken mesh jalli	Sq.M.	13.50
512	Polyalk Fixoprime	Kg.	240.00
513	Resin 505C	Kg.	290.00
514	Epoxy Resin 520	Kg.	334.00
515	Hardner EH411	Kg.	330.00
516	Sunepoxy 358 - Resin & Hardner	Kg.	315.00
517	Hack-aid plast (1 Lit.= 0.9 Kg.)	Lit.	153.00
518	Hack-aid plast	Kg.	139.00
519	Hack-aid plast - Special	Kg.	155.00
520	Hardner EH408	Kg.	320.00
521	Polymer	Kg.	200.00
522	Bullies		
	a) 80 mm dia.	Mtr.	13.00
	b) 100-105 mm dia.	Mtr.	19.00
	c) 125 mm dia.	Mtr.	23.00
523	Shear connector – 12 mm dia. bar (including labour)	Kg.	40.00
524	Broken glass pieces	Kg.	6.00
525	Rusticide	Lit.	90.00
526	River sand	Cu.M.	1,350.00
527	Quartz sand	Kg.	3.00
528	Shahabad stone – 22 - 35 mm	Sq.M.	195.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
529	Glass louvers/ Glass strips - 100X600mm	Sq.M.	339.00
530	Aluminium sheets - 22 gauge	Sq.M.	280.00
531	Teak wood batten - 40 X 10 mm	Mtr.	22.00
532	Polymer mortar	Kg.	21.00
533	Plasticizer (Polycrete NGT-Sunanda)	Lit.	67.00
534	Neeru	Kg.	3.00
535	White powder	Kg.	9.00
536	Brick bats	Cu.M.	989.00
537	Polycoat SS	Lit.	210.00
538	Grout pipe	Each	6.00
BASIC RATES OF MORTAR (including labour)			
539	Lime mortar (1:2)	Cu.M.	4,177.00
540	Cement mortar (1:2)	Cu.M.	4,934.00
541	Cement mortar (1:3)	Cu.M.	4,239.00
542	Cement mortar (1:4)	Cu.M.	3,583.00
543	Cement mortar (1:5)	Cu.M.	3,229.00
544	Cement mortar (1:6)	Cu.M.	2,926.00
545	Polymer mortar	Kg.	21.00
546	Cement mortar (1:1)/ (1:1:1)	Cu.M.	6,328.00
SECTION - XXIII PERMANENT WAY WORKS (RAILWAY ENGINEERING SECTION)			
547	52 Kgs. Rail	Mtr.	3,120.00
548	Canted B/ plates for 52 Kgs. rails	Each	450.00
549	Turnout I in 8 ½ for 52 Kgs. rail with all fittings set	Set	750,000.00
550	Fish plate for 52 Kgs. rails	Pair	1,500.00
551	Combination fish plate 90 R & 52 Kgs. rails	Pair	3,950.00
552	Bolts 5" x 1" for 52 Kgs. rails	Each	70.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
553	Bolts & nuts		
a)	5" X 1"	Each	70.00
b)	7" X 1"	Each	80.00
c)	8" X 1"	Each	90.00
d)	9" X 1"	Each	100.00
e)	10" X 1"	Each	110.00
f)	11" X 1"	Each	120.00
g)	12" X 1"	Each	130.00
h)	13" X 1"	Each	140.00
i)	14" X 1"	Each	150.00
j)	15" X 1"	Each	160.00
k)	16" X 1"	Each	170.00
l)	17" X 1"	Each	190.00
m)	20" X 1"	Each	200.00
554	Nuts & bolts - Square head - 4" X 4"	Each	65.00
555	Washer square for 1" dia. bolts	Each	15.00
556	Keys outer	Each	75.00
557	Keys inner	Each	65.00
558	Fish plate 52 Kgs. rails	Pair	1,500.00
559	Elastic clips for 52 Kgs. rail	Each	62.00
560	Grooved rubber pad for 52 Kgs. rails	Each	21.00
561	Points & crossing with all fittings for 52 Kgs. rails	Each	750,000.00
562	75R rails & 90R rails S/H	Mtr.	1,872.00
563	Canted B/ plates 6 holed	Each	450.00
564	MBC sleepers 8	Each	2,500.00
565	Std. Line W/ sleeper 9' X 110" X 5"	Each	3,200.00
566	Drill bit	Each	2,500.00
567	Weedicide (chemical)	Ltr.	345.00

Input Data - Material Rates

Sr. No.	Description of Material	Unit (per)	Rate in Rs.
568	Wooden 'X' ing sleeper		
a)	9' X 10" X 6"	Each	3,400.00
b)	9' X 12" X 6"	Each	3,600.00
c)	10' X 10" X 6"	Each	3,800.00
d)	11' X 10" X 6"	Each	4,200.00
e)	12' X 10" X 6"	Each	4,600.00
f)	13' X 10" X 6"	Each	5,000.00
g)	14' X 10" X 6"	Each	5,400.00
h)	14' X 12" X 6"	Each	5,800.00
i)	15' X 12" X 6"	Each	6,200.00
j)	16' X 10" X 6"	Each	6,600.00
k)	16' X 12" X 6"	Each	7,000.00
569	Cement concrete mono-block crossing sleeper	Set	290,000.00
570	Cement concrete mono-block sleeper	Each	2,500.00