

CHAPTER B-1 EARTH WORK

Note : The items in this Chapter will cover Earth Work for Building and Sanitary Work.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.1	Earth work in surface excavation not exceeding 30cm. in depth but exceeding 1.5 meter in width as well as 10 Sqm on plan including disposal of excavated earth up to 50 Mtr. and lift up to 1.5 Mtr. disposed soil to be levelled and neatly dressed: All kinds of soil	Sqm	31.00
1.2	Earth work in rough excavation, banking excavated earth in layers not exceeding 20cm in depth, breaking clods watering, rolling each layer with 1/2 tonne roller, or stone or steel rammers and rolling every 3rd and top- most layer with power roller of minimum 8-10 tonne capacity and dressing up in embankment for roads, flood banks marginal banks and guide banks or filling up ground depressions, lead up to 50 Mtr. and lift up to 1.5 Mtr.: All kinds of soil	Cum	236.00
1.3	Banking excavated earth in layers not exceeding 20cm. in depth breaking clods watering, rolling each layer with 1/2 tonne roller, or stone or steel rammers, and rolling every 3rd and top- most layer with power roller of 8-10 tonne capacity and dressing up in embankments for roads, flood banks marginal banks, and guide banks etc. lead up to 50 Mtr. and lift up to 1.5 Mtr. All kinds of soils	Cum	148.00
1.4	Deduct for not rolling with power roller of 8 to 10 tonne capacity for banking excavated earth in layers not exceeding 20 cm in depth	Cum	2.50
1.5	Deduct for not watering the excavated earth for banking.	Cum	10.00
1.6	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sum on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5 m , disposed earth to be levelled and neatly dressed: All kinds of soil	Cum	152.00
1.7	Earth work in excavation/ by mechanical means (Hydraulic Excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sum on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m , disposed earth to be levelled and neatly dressed:		
1.7.1	Ordinary rock	Cum	218.00
1.7.2	Hard rock (requiring blasting) useful material 30%	Cum	356.00
1.7.3	Hard rock(blasting prohibited) useful material 30%	Cum	468.00
1.8	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sum on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including taking out the excavated soil and depositing and refilling of jhiri with watering & ramming and disposal of surplus excavated soil as directed with in a lead of 50 meter. All kinds of soils	Cum	155.00
1.9	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains not exceeding 1.5 m in width or 10 sum on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed with a lead in a 50 meter including stacking of useful material if available :		
1.9.1	Ordinary rock	Cum	233.00
1.9.2	Hard rock (requiring blasting) useful material 30%	Cum	385.00
1.9.3	Hard rock(blasting prohibited) useful material 30%	Cum	478.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.10	Excavating trenches of required width for pipe cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 Mtr. including taking out the excavated soil, and then returning the soil as required in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering etc. and disposal of surplus excavated soil as directed within a lead of 50 Mtr.: All kinds of soil		
1.10.1	Pipes cables etc. not exceeding 80mm dia	Mtr.	100.00
1.10.2	Pipes cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	Mtr.	162.00
1.10.3	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm dia.	Mtr.	255.00
1.11	Add extra for excavating trench for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 Mtr. but not exceeding 3 Mtr.	Mtr.	134.00%
1.12	Add extra for excavating trench for pipes, cables etc. in all kinds of soil for depth exceeding 3 Mtr. but not exceeding 4.5 Mtr.	Mtr.	344.00%
1.13	Excavating trenches of required width for pipes cables etc. including excavation for sockets, depth up to 1.5 Mtr. including taking out the excavated materials, refilling the soil as required in layers not exceeding 20cm in depth including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed, with in a lead of 50 Mtr.		
1.13.1	ORDINARY ROCK: -		
1.13.1.1	Pipes cables etc. not exceeding 80mm dia	Mtr.	140.00
1.13.1.2	Pipes cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	Mtr.	346.00
1.13.1.3	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm dia.	Mtr.	397.00
1.13.2	HARD ROCK (REQUIRING BLASTING) USEFUL MATERIAL 30% OF VOLUME EXCAVATED		
1.13.2.1	Pipes cables etc. not exceeding 80mm dia	Mtr.	211.00
1.13.2.2	Pipes cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	Mtr.	523.00
1.13.2.3	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm dia.	Mtr.	603.00
1.13.3	HARD ROCK (BLASTING PROHIBITED) USEFUL MATERIAL 30% OF VOLUME EXCAVATED		
1.13.3.1	Pipes cables etc. not exceeding 80mm dia	Mtr.	256.00
1.13.3.2	Pipes cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	Mtr.	633.00
1.13.3.3	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm dia.	Mtr.	730.00
1.14	Add extra for excavating trenches for pipes, cables, etc. in ordinary/hard rock exceeding 1.5 m in depth but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre.)	Mtr.	105.00%
1.15	Add extra for excavating trenches for pipes, cables, etc. in ordinary/hard rock exceeding 3m in depth but not exceeding 4.5 m. (Rate is over corresponding basic item for depth upto 1.5 metre.)	Mtr.	261.00%
1.16	P & F Close timbering in trenches including strutting, shoring and packing cavities (wherever required) etc. Complete (Measurement to be taken of the face area timbered):		
1.16.1	Depth not exceeding 1.5 Mtr.	Sqm	82.00
1.16.2	Depth exceeding 1.5 Mtr. but not exceeding 3 Mtr	Sqm	86.00
1.16.3	Depth exceeding 3 Mtr. but not exceeding 4.5 Mtr	Sqm	95.00
1.17	P & F Close timbering in case of shafts, wells, soak pits, man-holes and the like including strutting, shoring and packing cavities (wherever required) etc complete (Measurement to be taken of the face area timbered):		
1.17.1	Depth not exceeding 1.5 Mtr.	Sqm	86.00
1.17.2	Depth exceeding 1.5 Mtr. but not exceeding 3 Mtr	Sqm	93.00
1.17.3	Depth exceeding 3 Mtr. but not exceeding 4.5 Mtr	Sqm	102.00
1.18	P & F Close timbering over area including strutting, shoring and packing cavities (wherever required) etc. complete (Measurement to be taken of the face area timbered):		
1.18.1	Depth not exceeding 1.5 Mtr.	Sqm	73.00
1.18.2	Depth exceeding 1.5 Mtr. but not exceeding 3 Mtr	Sqm	78.00
1.18.3	Depth exceeding 3 Mtr. but not exceeding 4.5 Mtr	Sqm	83.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.19	Add extra for planking, strutting and packing material for cavities (in close timbering) if required to be left permanently in position (face area of timber permanently left to be measured)	Sqm	1086.00
1.20	P & F of Open timbering in trenches including strutting, shoring complete (measurements to be taken of the face area timbered)		
1.20.1	Depth not exceeding 1.5 Mtr.	Sqm	41.00
1.20.2	Depth exceeding 1.5 Mtr. but not exceeding 3 Mtr	Sqm	43.00
1.20.3	Depth exceeding 3 Mtr. but not exceeding 4.5 Mtr	Sqm	47.00
1.21	P & F of Open timbering in case of shafts, wells, soak pits, manholes and the like including strutting, shoring complete (Measurement to be taken of the face are timbered):		
1.21.1	Depth not exceeding 1.5 Mtr.	Sqm	36.00
1.21.2	Depth exceeding 1.5 Mtr. but not exceeding 3 Mtr	Sqm	40.00
1.21.3	Depth exceeding 3 Mtr. but not exceeding 4.5 Mtr	Sqm	46.00
1.22	P & F Open timbering over area including strutting, shoring etc complete (Measurement to be taken of the face are timbered):		
1.22.1	Depth not exceeding 1.5 Mtr.	Sqm	26.00
1.22.2	Depth exceeding 1.5 Mtr. but not exceeding 3 Mtr	Sqm	28.00
1.22.3	Depth exceeding 3 Mtr. but not exceeding 4.5 Mtr	Sqm	33.50
1.23	Add extra for planking and strutting in open timbering if required to be left permanently in position (face area of timber permanently left to be measured)	Sqm	545.00
1.24	Add extra rate for quantities of works, executed :		
1.24.1	In or under water and /or liquid mud, including pumping out water as required	P.Mtr. depth	20.00%
1.24.2	In or under foul position , including pumping out water as required	P.Mtr. depth	25.00%
	Note for item no. 1.24:- The extra percentage rate is applicable in respect of each item but limited to quantities of work executed in these difficult conditions. The unit, namely, metre depth, to be considered for payment, shall be the depth measured from the sub soil water level up to the centre of gravity of the qty executed in difficult condition. The depth shall be reckoned correct to 0.10m, 0.05m or more shall be taken as 0.10m and less than 0.05m inorel.		
1.25	Filling available excavated earth (excluding rock) in trenches, plinth side of foundation etc. in layers not exceeding 20 cm. in depth, consolidating each deposited layer by ramming and watering including lead up to 50 meter and with all lift.	Cum	56.00
1.26	Add extra for foundation/trenches/drains for every additional lift of 1.5 Mtr. or part thereof in		
1.26.1	All kinds of soil	Cum	30.00
1.26.2	Ordinary or hard rock.	Cum	53.00
1.27	Supplying and Filling in plinth with river sand under floors including watering ramming consolidating and dressing complete including cost of sand	Cum	887.00
1.28	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish lead up to 50 Mtr. and lift up to 1.5 Mtr.: All kinds of soil	Sqm	7.50
1.29	Ploughing the existing ground to a depth of 15 cm to 25 cm and watering the same: All kinds of soil	Sqm	7.50
1.30	Excavating holes upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavted soil; as directed within a lead of 50 m and lift to 1.5 m		
1.30.1	All kinds of soil	Cum	81.00
1.30.2	Ordinary rock	Cum	118.00
1.30.3	Hard rock (requiring blasting) useful material 30%	Cum	211.00
1.30.4	Hard rock(blasting prohibited) useful material 30%	Cum	257.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	Sqm	4.00
1.32	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	Sqm	1.60
1.33	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable material and disposal of unserviceable material.		
1.33.1	Beyond 30 cm girth upto including 60 cm girth	Each	121.00
1.33.2	Beyond 60 cm girth upto including 120 cm girth	Each	538.00
1.33.3	Beyond 120 cm girth upto including 240 cm girth	Each	2490.00
1.33.4	Above 240 cm girth	Each	4995.00
1.34	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyrifos/Lindane emulsifiable concentrate of 20%	litre	211.00
1.35	Diluting and injecting by hand operated pressure pumps chemical Emulsion timber ground treatment [TCGT] in ratio 1: 2 as per manufacturers specification for POST CONSTRUCTIONAL Anti-termite treatment (as per IS 6313) part - III 1971 as amended from time to time) (excluding the cost of chemical emulsion) :		
1.35.1	Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300mm including excavation channel along the wall & rodding etc. complete: With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	10.00
1.35.2	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc. With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	15.00
1.35.3	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor. With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	sqm	76.00
1.35.4	Treatment of existing masonry using chemical emulsion@ one litre per hole at 300mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2(1 cement : 2 coarse sand) to the full depth of the hole. With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	11.00
1.35.5	Treatment at points of contact of wood work by chemical emulsion Chlorpyrifos/Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150mm centre to centre and sealing the same. With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	108.00
1.36	Diluting and injection Chlorpyrifos Emulsifiable concentrate 20% with 1% concentration for PRE-CONSTRUCTIONAL Anti termite treatment as per IS 6313 part III as amended from time to time and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor along the external perimeter of building expansion joints, over the top surface of consolidated earth of which aproch is to be laid surrounding of pipes and conduits etc. complete as per specification (Plinth floor area only shall be measured for payment and excluding the cost of chemical emulsion)	sqm	41.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.37	Drilling borehole and conducting standard penetration test from ground level and upto the depth given below or upto refusal whichever occurs earlier as per IS:2131-1981 and IS 2132-1986.The work also includes the determination of Safe Bearing Bearing capacity as per IS:6403-1981 and IS:8009-1976 from disturbed and undisturbed samples. The following properties should be also reported as per related IS codes .The whole work should be done as per direction given by Engineerand -in-charge and upto satisfaction of Engineer in Charge.		
	(i) Grain Size Analysis		
	(ii) Atterberg's Limit		
	(iii) Bulk Density		
	(iv) Moisture Cotent		
	(v) Specific Gravity		
	(vi) Shear Parameters including Cohesion and Angle of Internal Friction		
(a)	Upto 6m depth	Each	7500.00
(b)	upto 10m depth	Each	10000.00

CHAPTER B-2 MORTAR

NOTE :

- 1 Complete rate for mortar is inclusive of cost of material, T & P & cost of water with all leads and lifts involved.
- 2 Compressive strength of mortars shall be as per the relevant specifications.
- 3 Cement mortar shall be prepared by mechanical mixer only.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
<i>CEMENT SAND MORTAR :</i>			
2.1	Cement sand Mortar 1 : 2 (1 cement : 2 sand)	Cum	4559.00
2.2	Cement sand Mortar 1 : 3 (1 cement : 3 sand)	Cum	3768.00
2.3	Cement sand Mortar 1 : 4 (1cement : 4 sand)	Cum	3092.00
2.4	Cement sand Mortar 1 : 5 (1 cement : 5 sand)	Cum	2728.00
2.5	Cement sand Mortor 1 : 6 (1 cement : 6 sand)	Cum	2416.00
2.6	Cement sand Mortor 1 : 8 (1 cement : 8 sand)	Cum	2000.00
2.7	Cement sand Mortar 1:10 (1 cement :10 sand)	Cum	1775.00
<i>CEMENT MARBLE POWDER MORTAR :</i>			
2.8	Cement marble powder mortar 1 : 2 (1-cement : 2-marble powder)	Cum	4487.00
2.9	Cement marble powder mortar 1 : 4 (1cement : 4-marble powder)	Cum	2647.00
2.10	White cement marble powder mortar 1 :2 (1 white cement : 2 marble powder)	Cum	11077.00
2.11	White cement marble powder mortar 1:3 (1 white cement : 3 marble powder)	Cum	8610.00
2.12	White cement marble powder mortar 1:4 (1 white cement : 4 marble powder)	Cum	5610.00
<i>MUD MORTAR :</i>			
2.13	Mud Mortar including specified ingredients.	Cum	207.00
<i>LOW COST SHREE BINDER SAND MORTAR :</i>			

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.14	Low cost Shree Binder and sand mortar (1:2)	Cum	1220.00
2.15	Low cost Shree Binder and sand mortar (1:3)	Cum	1140.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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2.16	Low cost Shree Binder and sand Mortar (1:4)	Cum	1078.00
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CHAPTER B-3 CONCRETE WORK

NOTE :

- 1 The rates are for all lead of cement, ballast, sand, and grit etc. at site of work and are inclusive of laying and mixing, all T & P, mixer, vibrator with P.O.L, scaffolding etc. including cost of curing.
- 2 For all concrete work only coarse sand shall be used.
- 3 Concrete mix prepared by power-driven mechanical mixer shall be used.
- 4 Under exceptional conditions, where mechanical mixer and vibrator are not used (with the approval of Engineer-in-Charge) rates to be reduce by 15%, for mechanical mixer and 10 % for vibrator.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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CEMENT CONCRETE (CAST-IN-SITU):

3.1	Providing and laying in position cement concrete including curing, compaction etc. complete in specified grade excluding the cost of centering and shuttering - All work up to plinth level.		
3.1.1	M20 grade Nominal Mix 1: 1.5: 3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	Cum	4468.00
3.1.2	M15 grade Nominal Mix 1: 2: 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size).	Cum	4003.75
3.1.3	M15 grade Nominal Mix 1: 2: 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).	Cum	3935.00
3.1.4	M10 grade Nominal Mix 1: 3: 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Cum	3331.25
3.1.5	M10 grade Nominal Mix 1: 3: 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	Cum	3231.25
3.1.6	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	Cum	2858.75
3.1.7	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size).	Cum	2558.75
3.2	Providing and laying cement concrete including curing, compaction etc. complete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, levelling course etc up to floor five level excluding the cost of centering and shuttering.		
3.2.1	M20 grade Nominal Mix 1: 1.5: 3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	Cum	4955.00
3.2.2	M15 grade Nominal Mix 1: 2: 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size).	Cum	4426.25
3.2.3	M15 grade Nominal Mix 1: 2: 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).	Cum	4345.00
3.2.4	M10 grade Nominal Mix 1: 3: 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Cum	3740.00
3.2.5	M10 grade Nominal Mix 1: 3: 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	Cum	3640.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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CEMENT CONCRETE (PRE-CAST):

3.3	Providing and fixing up to floor five level pre cast cement concrete string or lacing courses, copings, bed plates, anchor blocks, windows sills, shelves, louvers steps, staircases, etc. including carriage, hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand) cost of required centering, shuttering and finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surface, including all T & P, curing etc. complete:		
3.3.1	M15 grade Nominal Mix 1: 2: 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size).	Cum	6050.00
3.3.2	M10 grade Nominal Mix 1: 3: 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Cum	5363.75
3.4	Add Extra for concrete work in superstructure above floor V level for each four floors or part thereof.	Cum	353.75
3.5	Add Extra for laying concrete in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.	Per Cum per Mtr. depth	266.25
Note :	The quantity will be calculated by multiplying the depth measured from the sub-soil water level up to centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under sub-soil water. The depth of centre of gravity shall be reckoned correct to 0.1 m; 0.05 m or more shall be taken as 0.1 m and less than 0.05 m ignored.		
3.6	Add Extra for laying concrete in or under foul positions.	Cum	108.75

DAMP- PROOF COURSE AND PRECASTCOPING

3.7	Providing and laying damp-proof course with cement concrete grade M-150 (1 : 2 : 4) mortar prepared with 1% solution of water-proof compound complete as per specification .		
3.7.1	50mm thick.	Sqm	338.75

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.7.2	75mm thick.	Sqm	472.50
3.8	Providing & fixing precast cement concrete coping 1 : 2 : 4 mix 50mm thick complete as per specification :	Sqm	318.75

CHAPTER B-4 REINFORCED CONCRETE WORK

Note:

- 1 Rates for complete work laying, compaction, vibration, curing and all types of T & P, including P.O.L. etc and grinding and mixing of mortar.
- 2 The rates for centering and shuttering are for steel plates shuttering for complete work including centering, shuttering nails and other such items required. The shuttering shall be removed after required time as per instruction by Engineer-in-charge & IS 456:2000.
- 3 The Concrete for all grade shall be produced in conformation to the laid down procedures and all relevant clauses of IS 456 : 2000
- 4 If any machinery like mechanical mixture machine, vibrator or mechanical mortar miller etc. is supplied by the Department, the hire charges as per department rate will be charged and transportation cost will be borne by the contractor.
- 5 No R.C.C. work shall be permitted without the use of mechanical mixer by hopper and vibrator.
- 6 Contractor at site shall arrange a stand by mechanical mixer and extra vibrator if more than 20 cum of RCC is to be done in a single day.
- 7 The rate for R.C.C. work is inclusive of cost of providing cement mortar covers Blocks. The rates for centering includes placement of cover blocks.
- 8 (a) For Design mix ,the producer / manufacturer / contractor shall obtain mix proportions of each grade of concrete from a recognized laboratory and submit detail to the Engineer-in-charge for approval. Concrete of any particular design mix and grade shall be produced / manufactured by weight batched hopper mechanical mixer with assigned capacity of mixing drum as directed by Engineer-in-charge.
- 8 (b) For Nominal mix concreting work,the coarse aggregates and fine aggregates will be measured by the standard boxes and cement by bag.The boxes should be designed for 1/2 bag,1 bag etc. of cement.
- 9 If any change required in the approved Job Mix design ingredient, Fresh Job Mix design shall be obtain by the contractor from approved lab and shall be got approved from Engineer-in-charge

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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CAST-IN-SITU CONCRETE:

4.1	Providing and laying in position specified grade of cement concrete for all RCC structural elements upto plinth level including curing, compaction, finishing with rendering in cement sand mortar 1:3 (1 cement: 3 coarse sand) and making good the joints and cost of plastizers (if required) excluding the cost of centering, shuttering and reinforcement. M20 grade Nominal Mix / Design Mix	Cum	4112.00
4.1.1	M20 grade Nominal Mix		
4.1.2	M20 grade Design Mix	Cum	

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
4.2	Providing and laying in position specified grade of cement concrete for RCC structural elements upto floor five level including curing, compaction, finishing with rendering in cement sand mortar 1:3 (1 cement: 3 coarse sand) and making good the joints and cost of plastizers (if required) excluding the cost of centering, shuttering and reinforcement for Walls (any thickness) including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. M20 grade Nominal Mix / Design Mix	Cum	5102.00
4.2.1	M20 grade Nominal Mix		
4.2.2	M20 grade Design Mix	Cum	
4.3	Providing and laying in position specified grade of cement concrete for RCC structural elements upto floor five level including curing, compaction, finishing with rendering in cement sand mortar 1:3 (1 cement: 3 coarse sand) and making good the joints and cost of plastizers(if required) excluding the cost of centering, shuttering and reinforcement for Beams, suspended floors, roofs, griders having slopes up to 15°, landings, balconies, shelves, chajjas, lintels, bands, plain windows sills, staircases and spiral staircases etc. M20 grade Nominal Mix / Design Mix	Cum	4490.00
4.3.1	M20 grade Nominal Mix		
4.2.2	M20 grade Design Mix	Cum	
4.4	Providing and laying in position specified grade of cement concrete for RCC structural elements upto floor five level including curing, compaction, finishing with rendering in cement sand mortar 1:3 (1 cement: 3 coarse sand) and making good the joints and cost of plastizers(if required) excluding the cost of centering, shuttering and reinforcement for Arches, arch ribs, domes, vaults, shells, folded plate, chimneys, shafts , roofs having slope more than 15° ,vertical and horizontal fins individually or forming box louvers, facias and eaves boards M20 grade Nominal Mix / Design Mix	Cum	4815.00
4.4.1	M20 grade Nominal Mix		
4.4.2	M20 grade Design Mix	Cum	
4.5	Providing and laying in position Ready mix concrete manufactured in fully automatic Batching Plant and transported to site in transit mixer for having continous agitated mixer, manufactured as per approved mix design of specified grade of RCC work including pumping of R.M.C. from transit mixer to site of laying , excuding the cost of centering, shuttering and reinforcement with all lead and lift including cost of admixtures in recommended portion as per IS 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer in charge . All works upto floor V floor M20 grade Design Mix by using min 400 Kg of cement per cum of concrete	Cum	5362.00
4.6	Add extra for providing richer mixes respectively at all floor levels		
4.6.1	Providing M-25 grade concrete by using min 410 kg of cement per cum instead of M-20 grade design mix.	Cum	60.00
4.6.2	Providing M-30 grade concrete by using min 420 kg of cement per cum instead of M-20 grade design mix.	Cum	120.00
4.6.3	Providing M-35 grade concrete by using min. 428 kg of cement per cum instead of M-20 grade design mix.	Cum	168.00
4.6.4	Providing M- 40 grade concrete by using min. 435 kg of cement per cum instead of M-20 grade design mix.	Cum	210.00
4.7	Add extra for RCC work in superstructure above floor five level for each four floor or part thereof .	Cum	98.00
4.8	Deduct for using less cement quantity than the quantity as provided in the item of design mix concrete/RMC as arrived as per mix design.(on cement quantity)	Kg	6.00
FORMK WORK			
4.9	Centering and Shuttering with plywood or steel sheets including strutting, propping bracing both ways and removal of formwork for foundation , footings, strap beam, raft , bases of columns etc.	Sqm.	137.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
4.10	Centering & shuttering with plywood or steel sheets including strutting, propping bracing both ways with steel props and removal of formwork for upto floor five level for :		
4.10.1	Walls (any thickness) including attached pilasters, buttresses plinth and string course.	Sqm	251.00
4.10.2	Suspended floors, roofs, landings, staircases, balconies, girders, cantilevers, bands, coping bed plates, anchor blocks, sills, chhajjas, lintel, beam, plinth beam etc.	Sqm	295.00
4.10.3	Columns, pillars, posts and struts etc.	Sqm.	325.00
4.10.4	Spiral staircases, chimneys shafts etc.	Sqm.	261.00
4.10.5	Arches, domes, vaults etc. up to 6 Mtr span.	Sqm.	761.00
4.10.6	Arches, domes, vaults etc exceeding 6 Mtr span	Sqm.	303.00
4.10.7	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards.	Sqm.	428.00
4.10.8	Add extra for shuttering in circular work (in respective centering and shuttering items)	Sqm	20%
4.10.9	Cornices and mouldings	Sqm	411.00
4.10.10	Grid roofing with panel area less than 2.25 Sqm. (contact area to be measured).	Sqm	351.00
4.10.11	Deduct for using wooden vertical member instead of steel props Note : The uses of wooden member is allowed in works which A & F sanction up to 25 lacs only.	Sqm	20%
4.11	Add extra for additional height in centring, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentring at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area is to be measured)	Sqm	148.00
4.12	Add extra for centering and shuttering work in superstructure above floor five level for each four floor or part thereof .	Sqm.	30.00
STEEL REINFORCEMENT:			
4.13	Providing and fabricating reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding (including cost of binding wire) all complete up to floor five level.		
4.13.1	Cold twisted deformed bars (IS : 1786).	Kg.	61.00
4.13.2	Hot rolled deformed bars (IS : 1139).	Kg.	61.00
4.13.3	Thermo-mechanically Treated bars (Conforming of relevent IS code)	Kg.	61.00
4.14	Labour charges for cutting, bending for fabrication and binding reinforcement (plain or tor/ribbed/TMT steel) as per drawing and design for R.C.C. and R.B. work including cost of binding wire with all lead and lift up to floor five level complete.	Kg.	12.50
4.15	Add extra for reinforcement in superstructure above floor five level for each four floor or part thereof .	Kg	2.50
PRECAST CEMENT CONCRETE			
4.16	Providing, hoisting and fixing up to floor five level precast reinforced concrete work in Nominal M20 grade mix including cost of required centering, shuttering, finishing, smooth with 6 mm thick cement plaster 1:3 (1 cement: 3 fine sand) on exposed surface complete excluding cost of reinforcement		
4.16.1	String courses, copings, bed plates, anchor blocks, plain window sills etc	Cum	6133.00
4.16.2	Small lintels not exceeding 1.5 m clear span	Cum	7934.00
4.16.3	Mouldings as in cornices, windows sills etc.	Cum	8885.00
4.16.4	Lintels beams and bressumers including setting in cement mortar 1:3 (1 cement: 3 coarse sand) aggregate 20mm nominal size).	Cum	7478.00
4.16.5	Shelves, Vertical & horizontal fins individually or forming box louvers setting in cement mortar 1:2 (1 cement: 2 sand)	Cum	11287.00
4.17	Providing, hoisting and fixing up to floor five level precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) reinforced with 1.6 mm dia Mild steel wire including centring and shuttering, roughening cleaning, fixing and finishing in cement mortar 1 : 3 (1 cement : 3 fine sand) etc complete as per approved design excluding plastering of jambs, sills and soffits		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
4.17.1	50mm thick	Sqm	546.00
4.17.2	40 mm thick	Sqm.	462.00
4.17.3	30mm thick	Sqm.	426.00
4.18	Add extra over for both side jali	Sqm.	20.00%
ENCASING ROLLED STEEL SECTION			
4.19	Encasing rolled steel section in beams and columns, with M20 Nominal Mix cement concrete including centering and shuttering complete but excluding cost of reinforcement.	Cum	7325.00
4.20	Encasing rolled steel section in grillages with M20 Nominal Mix including centering and shuttering complete but excluding cost of expanded metal and hangers.	Cum	4855.00
4.21	Add Extra for providing and fixing expanded metal mesh of size 20x60mm and strands 3.25mm wide 1.6mm thick weighing 3.64 kg. per sum. for encasing of rolled steel sections in beams, columns and grillages excluding cost of hangers.	Sqm.	330.00
4.22	Providing ,arranging and erecting 50mm dia M.S. pipe cup lock shuttering arrangement above the ground level upto the height given below. The girding arrangement of cup lock system should have 2.50 meter 3.00 meter long coupling pipes and 0.90mt long lacer pipe (Horizontal bracing pipes) reconnected in both ways so as to make a square grid of size 0.90x0.90 meter in plan. The Horizontal bracing and lacer pipes should have a maximum spacing of 1.50 meter c/c both ways. The bottom of the coupling pipe must rest over a firm support at ground. the shuttering plates of 900mmx600mm size duly braced by angle supports and should rest over 50mmx50mm size wooden logs supported by 75x40x6mm size channels and U-Jacks made of M.S.25mm dia steel bars with adjustable thread and lock arrangement placed at a spacing of 0.60 meter c/c. The whole arrangement should be duly shored from ground by U-Jacks and lacer pipes to prevent any lateral movement during casting of slabs. Additional support as per direction of engineer in charge are also to be provided wherever felt necessary. The work would include transportation of material erecting the whole grid structure, bracing both way, shoring, leveling of shuttering and removal of form work		
(a)	Upto 6.63 meter height	Sqm.	913.00
(b)	Upto 9.14 meter height	Sqm.	1640.00

CHAPTER B-5 BRICK WORK

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
5.1	Brick masonry with F.P.S. bricks of class designation 75 in foundation and plinth with bricks		
5.1.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Cum.	3831.00
5.1.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Cum.	3617.00
5.1.3	Low cost Shree Binder and sand mortar (1:3) (for non load bearing walls)	Cum.	3242.00
5.1.4	Mud mortar	Cum.	2968.00
5.2	Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level upto floor V level in all shapes and sizes in :		
5.2.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Cum.	4322.00
5.2.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Cum.	4096.00
5.2.3	Low cost Shree Binder and sand mortar (1:3) (for non load bearing walls)	Cum.	3721.00
5.2.4	Mud mortar	Cum.	3447.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
5.3	Brick work with machine moulded perforated bricks of class designation 125 confirming to IS : 2222- 1991 in superstructure above plinth level upto five floor level in cement mortar 1:6 (1-Cement : 6-Coarse Sand) :		
5.3.1	with F.P.S. bricks.	Cum.	4576.00
5.3.2	with Modular bricks.	Cum.	4389.00
5.4	Add extra for Square or Rectangular Pillars in Superstructure brick work up to five storey		
5.4.1	Upto 45 cm length and all sides are free	Cum	297.00
5.4.2	Upto 45 cm length and two corners are free	Cum	148.00
5.4.3	Upto 90 cm length and all sides are free	Cum	253.00
5.4.4	Circular Pillars	Cum.	301.00
5.5	Brick work in plain arches in super structure upto five storey in cement mortar 1 : 3 including centering and shuttering complete span upto 6 Mtr. with Brick of class designation 75.	Cum.	6147.00
5.6	Brick work in gauged arches in super structure upto five storey in cement mortar 1 : 3 including centering and shuttering complete span upto 6 meter with Brick of class designation 75.	Cum.	7286.00
5.7	Add extra for additional cost of centering for arches exceeding 6m span including all shuttering , bolting wedging and removal.(Area of the soffit to be measured)	Cum	303.00
5.8	Half brick masonry in foundation & plinth using bricks of designation 75		
5.8.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	Sqm.	477.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
5.8.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm.	452.00
5.8.3	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Sqm.	427.00
5.8.4	Low cost Shree Binder and sand mortar (1:2) (for non load bearing walls)	Sqm.	387.00
5.8.5	Low cost Shree Binder and sand mortar (1:3) (for non load bearing walls)	Sqm.	385.00
5.9	Half brick masonry in Superstructure , above plinth level upto floor V level using bricks of designation 75		
5.9.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	Sqm.	530.00
5.9.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm.	503.00
5.9.3	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Sqm.	478.00
5.9.4	Low cost Shree Binder and sand mortar (1:2) (for non load bearing walls)	Sqm.	438.00
5.9.5	Low cost Shree Binder and sand mortar (1:3) (for non load bearing walls)	Sqm.	530.00
5.10	Add extra providing and placing in position 2 Nos. ,6mm Ø M.S. bar at every third course of half brick masonry .	Sqm	74.00
5.11	Brick work in partition in super structure upto five storey 7cm. thick (brick on edges) using bricks of class designation 75 in :		
5.11.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	Sqm.	360.00
5.11.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm.	343.00
5.11.3	low cost Shree Binder & Sand mortar (1:2) (for non load bearing walls)	Sqm.	302.00
5.12	Honey comb brick work half brick thick with bricks of class designation 75 upto five storey in:		
5.12.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm.	327.00
5.12.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Sqm.	311.00
5.13	Add extra over for laying brick work in or under water and or liquid mud including cost of pumping of or bailing out water and removal of slush etc. complete.	P.Cum. P.- Mtr. depth	266.00
Note :	The quantity will be calculated by multiplying the depth measured from the sub-soil water level up to centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under sub-soil water. The depth of centre of gravity shall be reckoned correct to 0.1 m; 0.05 m or more shall be taken as 0.1 m and less than 0.05 m ignored.		
5.14	Add extra for laying bricks work in or under foul condition.	Cum.	108.00
5.15	Brick work in super structure upto five storey with selected bricks of class designation 75 in exposed brick work including making horizontal and vertical grooves 10mm. wide 12mm. deep complete in cement mortar 1:6.	Cum	3676.00
5.16	Brick work with clay flyash F.P.S. brick (IS 13757- 1993) of class designation 75 in superstructure above plinth level upto floor five level in :		
5.16.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Cum	4580.00
5.16.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Cum	4393.00
5.17	Brick work with mechanised autoclaved flyash lime bricks conforming to IS: 12894 :2002 of class designation 100 in superstructure above plinth level upto floor V level in.		
5.17.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Cum	4465.00
5.17.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Cum	4223.00
5.18	Add extra for brick work in superstructure above floor five level, for each four floors or part thereof.		
5.18.1	Quantity in Cum.	Cum.	236.00
5.18.2	Quantity in Sqm.	Sqm.	21.00
5.19	Add extra over item of brick work with class designation 100 in substitution of class designation 75 :		
5.19.1	Quantity in Cum.	Cum.	148.00
5.19.2	Quantity in Sqm.	Sqm.	17.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
5.20	Half Brick work with mechanised autoclaved flyash lime bricks conforming to IS: 12894 :2002 of class designation 100 in superstructure above plinth level upto floor V level in.		
5.20.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm	533.00
5.20.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Sqm	506.00
5.21	Half Brick work with mechanised autoclaved flyash lime bricks conforming to IS: 12894 :2002 of class designation 75 in superstructure above plinth level upto floor V level in.		
5.21.1	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm	513.00
5.21.2	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Sqm	487.00

CHAPTER B-6 STONE MASONRY

Note :

- 1 Rates provided are for the complete finished items inclusive of cost of water and materials with all leads labour, all type of taxes, royalty, scaffolding, curing, laying, fixing finishing etc., hire charges for tools and plants, templates and other appliances, required for the purpose of execution of the items work as per specification.
- 2 In case of non-availability of stone header of proper size cement concrete header of mix 1:3 : 6 (M-100) with 25mm graded stone aggregate with smooth finish may be provided by the contractor at no extra cost.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
6.1	Random Rubble stone masonry for with hard stone in foundation and plinth in Cement Sand mortar above 30 CM thick wall in:		
6.1.1	Mud Mortar.	Cum.	1602.00
6.1.2	Dry Masonry.	Cum.	1510.00
6.1.3	Cement Mortar 1:3 (1-Cement : 3-Sand).	Cum.	3055.00
6.1.4	Cement Mortar 1:4 (1-Cement : 4-Sand).	Cum.	2756.00
6.1.5	Cement Mortar 1:5 (1-Cement : 5-Sand).	Cum.	2596.00
6.1.6	Cement Mortar 1:6 (1-Cement : 6-Sand).	Cum.	2458.00
6.1.7	Low cost Shree binder Sand mortar (1:3) (for non load bearing walls only)	Cum	1962.00
6.2	Random Rubble stone masonry with hard stone in superstructure above plinth level and upto five level above 30cm. thick walls in :		
6.2.1	Mud Mortar.	Cum.	2157.00
6.2.2	Dry Masonry.	Cum.	2065.00
6.2.3	Cement Mortar 1:3 (1-Cement : 3-Sand).	Cum.	3610.00
6.2.4	Cement Mortar 1:4 (1-Cement : 4-Sand).	Cum.	3311.00
6.2.5	Cement Mortar 1:5 (1-Cement : 5-Sand).	Cum.	3151.00
6.2.6	Cement Mortar 1:6 (1-Cement : 6-Sand).	Cum.	3013.00
6.2.7	Low cost Shree binder Sand mortar (1:3) (for non load bearing walls only)	Cum	2517.00
6.3	Add extra for Random Rubble stone masonry with hard stone in		
6.3.1	Square or Rectangular pillars	Cum.	150.00
6.3.2	Circular pillars	Cum.	450.00
6.3.3	Wall curved in plan to mean radius not exceeding 6 Mtr.	Cum	277.00
6.3.4	Wall upto 30cm. and less thickness.	Cum	161.00
6.4	Add extra for facing as per design and detailed specifications including additional cost of stones		
6.4.1	Course rubble facing First sort.	Sqm	536.00
6.4.2	Course rubble facing Second sort.	Sqm	425.00
6.4.3	Ashlar fine tooled facing.	Sqm	577.00
6.4.4	Ashlar rough tooled facing.	Sqm.	330.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
6.4.5	Ashlar pitched facing.	Sqm.	291.00
6.5	Extra for stone masonry work,above floor V level for every four floors or part thereof.	Cum	472.00
6.6	Extra for laying stone work in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.	Cum/ P Mt depth	266.00
6.7	Extra for laying stone work in or under foul position.	Cum	108.00
Note :-	Recover cost of useful stone @ 2/3 rd of masonry work dismantalled quantity.	Cum	499.00
6.8	Stone work (machine cut edges) for Wall cladding/ Veneering work up to 10m height with 20 to 30 mm thick Red Sand Stone (Karauli) and backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade :(To be secured to the backing by means of cramps which shall be paid separately)		
6.8.1	Exposed face rough dressed	Sqm.	1571.00
6.8.2	Exposed face machine cut	Sqm.	2165.00
6.9	Stone work (machine cut edges) for Wall cladding/ Veneering work up to 10 m height with 20 to 30 mm thick Pink Sand stone (Bansi Paharpur) and backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing by means of cramps which shall be paid separately)		
6.9.1	Exposed face rough dressed	Sqm.	1603.00
6.9.2	Exposed face Machine cut	Sqm.	2196.00
6.10	Wall lining butch work upto 10m height with Red/ Pink Sand stone 20 to 30 mm thick		
6.10.1	Exposed face rough dressed	Sqm.	1172.00
6.10.2	Exposed face machine cut	Sqm.	1260.00
6.11	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases in stone and holes in walls wherever required	Kg	613.00
6.12	Providing and fixing stone dowels 10x5x2.50 cm cut to double wedge shape as per design in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases.	Each	25.00
6.13	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases.	Each	23.00
6.14	Extra for stone work for wall lining on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part there of.	Sqm.	56.00
6.15	Providing and fixing horizontal chajja of Red/ White sand stone 40 mm thick and upto 80 cm projection in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.	Sqm.	765.00
6.16	Providing dab stone over Chajjas duly fixed in cement sand mortar 1:6 complete :		
6.16.1	80mm thick.	Sqm.	798.00
6.16.2	50mm thick.	Sqm.	715.00
6.17	Supplying and fixing in walls machine cut and polished stone shelves, tands and in CM 1:3 with machine cut edges :		
6.17.1	Sand or other approved stone 25mm thick.	Sqm.	437.00
6.17.2	Sand or other approved stone 50mm thick.	Sqm.	583.00
6.17.3	Kota stone 25 to 30mm thick.	Sqm.	423.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
6.18	Supplying and fixing stone lintels/bed plates of approved quarry rough dressed in cement mortar 1:4 :		
6.18.1	Upto 15 cm. thick.	Cum	8330.00
6.18.2	Above 15 cm. thick.	Cum	7933.00
6.19	Supplying and fixing machine cut fine dressed Red/Pink sand stone dasa or coping , with full moulding if required laid on cement mortar 1:4 including pointing with admixture of pigment matching with the stone shade.		
6.19.1	25 mm thick	Sqm.	1077.00
6.19.2	50 mm thick	Sqm.	1262.00
6.19.3	75 mm thick	Sqm.	1441.00
6.20	Supplying and fixing machine cut dressed 75 mm Pink sand stone (Bansi Paharpur) dasa/ coping with ornamental shape having moulding and "PAN Shape" engraving as per required pattern with engraving depth of 5 mm (average) in single piece of length 90 cm to be laid on cement mortar 1:4 (12 to 20mm thick) including pointing with admixture of pigment matching with the stone shade.	Sqm.	4597.00
6.21	Providing and fixing Stone jali 40mm thick Red/Pink sand stone throughout in cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment, matching the stone shade, jali patterns to be cut square to jali slab without any chamfers etc:	Sqm.	6798.00
6.22	Providing and fixing Stone jali 50mm thick Red/Pink sand stone as per ornamental design to fixed with white cement/epoxy mortar including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment, matching the stone shade.	Sqm.	7631.00
6.23	Providing and fixing Red/Pink sand stone post (Mataga) having size 100x100mm heights 600 to 750 mm as per ornamental design such as like flower octonogal head border etc. to fixed with white cement/epoxy mortar including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment, matching the stone shade.	Each	693.00
6.24	Providing and fixing ornamental/aesthetic look cement concerte claddings/ veneers up to 100 mm with, over a base of cement Plaster 1:4, 20 mm thick including cement pointing 1:2 with an admixture of pigment to match the shades of veneer upto 4:5 mtr. Height above plinth level.	Sqm	875.00

CHAPTER : B - 7
MARBLE, GRANITE AND TILE WORKS

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
7.1	Providing and fixing Marble stone flooring table rubbed, 15-18 mm thick over 20mm (Av.) thick base of CM 1:4 (1 cement : 4 coarse sand) jointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with pigment to match the shade of the marble slab including grinding, rubbing and polishing complete. OR Providing and fixing stone slabs table rubbed, 15-18 mm thick in Walls, Steps, Pillars, Counters, Jambs, Shelves, Sills etc. laid on 12mm (Av.) thick base of CM 1:3 (1 cement : 3 coarse sand) jointing with white cement mortar 1:2 (1white cement : 2 marble dust) with pigment to match the shade of the marble slab including grinding, rubbing and polishing complete.		
7.1	Makrana 'Adanga'.		
7.1.1	Upto to 1500 Cm ² Tiles	Sqm.	1058.00
7.1.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	1227.00
7.1.3	Above 3601 Cm ² Slabs	Sqm.	1522.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
7.2	Rajnagar 1st quality/Ageria with light spots.		
7.2.1	Up to 1500 Cm ² Tiles	Sqm.	949.00
7.2.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	1052.00
7.2.3	Above 3601 Cm ² Slabs	Sqm.	1186.00
7.3	Keserajji/ Abu Ambaji (Green Marble)		
7.3.1	Up to 1500 Cm ² Tiles	Sqm.	985.00
7.3.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	1153.00
7.3.3	Above 3601 Cm ² Slabs	Sqm.	1522.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
7.4	Bhaislana, Abu, Kishangarh Zebra (Black Marble)		
7.4.1	up to 1500 Cm ² Tiles	Sqm.	935.00
7.4.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	1018.00
7.4.3	Above 3601 Cm ² Slabs	Sqm.	1237.00
7.5	Providing and fixing Granite stone slab mirror polished and machine edge cut in walls, pillars, steps, Shelves, Sills Counters, Floors etc. laid on 12mm (Av.) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) jointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with pigment to match the shade of the marble slab including grinding, rubbing and polishing complete.		
7.5	Jhunjhunu / Jalore (Red / Chocolate Colour)		
7.5.1	Up to 1500 Cm ² Tiles	Sqm.	1812.00
7.5.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	2646.00
7.5.3	Above 3601 Cm ² Slabs	Sqm.	3286.00
7.6	South (Red)		
7.6.1	Up to 1500 Cm ² Tiles	Sqm.	2230.00
7.6.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	3036.00
7.6.3	Above 3601 Cm ² Slabs	Sqm.	4541.00
7.7	Green / Black		
7.7.1	Up to 1500 Cm ² Tiles	Sqm.	2122.00
7.7.2	1501 Cm ² to 3600 Cm ² Tiles	Sqm.	2887.00
7.7.3	Above 3601 Cm ² Slabs	Sqm.	3705.00
7.8	Extra for providing edge moulding to 15-18mm thick marble/ Granite stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.		
7.8.1	Marble work	Metre	133.00
7.8.2	Granite Work	Metre	212.00
7.9	Extra for fixing marble /granite stone over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive including cleaning etc. complete	Metre	22.00
7.10	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edges etc. complete	Each Opening	233.00
7.11	Extra for Mirror polishing on marble work where ever required to give high gloss finish complete.	Sqm.	93.00
7.12	Extra in marble flooring work for upto 50 mm wide strip of Green/White/ Jaisalmer stone in flooring work as per direction of Engineer in Charge	Rm	47.00
7.13	Providing and fixing cramps of required size & shape in RCC/ CC backing with cement mortar 1:2 (1 cement :2 coarse sand) including drilling necessary hole in stones and embedding the cramp in the hole .		
7.13.1	Gun Metal cramp	Kg	584.00
7.13.2	Stainless steel cramps	Kg	555.00
7.14	Providing and fixing 1st quality standard white, grey, ivory, fume red brown, light green, light blue and other light shades glazed tiles confirming to IS : 13753 & IS :15622 of size 200mm x 300mm in walls, floors, steps, pillars etc. laid on a bed of neat cement slurry finished with flush pointing in the white cement mixed with pigment to match the shade of the tile complete (excluding the cost of cement plaster on walls and pillar).	Sqm.	613.00
7.15	Providing and fixing 1st quality MAT finished ceramic tile size 300x300mm confirming to IS : 13755 and IS : 15622 colour such as white, grey, ivory, fume red brown, light green, light blue and other light shades in floors, steps, pillars etc. laid on a bed of neat cement slurry finished with flush pointing in the white cement mixed with pigment to match the shade of the tile complete (including the cost of cement mortar bed 1:4).	Sqm.	680.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
7.16	Extra for using Marble printed / Granite shade or dark shade tiles instead of white, grey, ivory, fume red brown, light green, light blue and other light shades in glazed tiles and MAT finished tiles.	Sqm	10.00%
7.16.1	Extra for using size above 200x300mm in glazed tiles and for using 400mm x 400mm MAT finished tiles in place of 300mm x 300mm size.	Sqm	10.00%
7.17	Providing and fixing 75 mm wide Decorative Border in different shades and in all colours in glazed tiles laid over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white mixed with pigment of matching shade complete.	Rmt.	299.00
7.18	Providing and fixing Motive pieces all colours for glazed tiles laid over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white mixed with pigment of matching shade complete..		
7.18.1	Size 200 x 200mm	Each	118.00
7.18.2	Size 200 x 300mm	Each	141.00
7.19	P & F 1st quality Vitrified Porcelain Polished tiles on floor, skirting and steps etc.in different sizes (thickness to be specified by manufacturer) with water absorption less than 0.08% and conforming to IS 15622 of approved make in all colour and shade, laid with 20 mm thick CM 1 : 4 including grouting the joints with white cement and matching pigment etc complete.		
7.19.1	size 450 mm X 450 mm	Sqm	717.00
7.19.2	size 600 mm X 600 mm	Sqm	828.00
7.19.3	size 800mm X 800 mm	Sqm	1044.00
7.20	Add extra for Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477 , using 5kg. adhesive per sum of tile area, in average 3mm thickness instead of cement mortar.	Sqm	189.00

CHAPTER : B-8 WOOD WORK

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
8.1	Providing & fixing door, window, chowkhats and other frames, including antitermite treatment, M.S. flat, hold fasts of size 250 x 40 x 3mm fixed with M.S. bolt 5mm dia 50mm long duly embedded in cement concrete M-15 grade :		
8.1.1	Sal wood Grade - I.	Cum	42291.00
8.1.2	Kiln seasoned and chemically treated Hollock wood. Grade I	Cum	35923.00
8.1.3	Sheesham wood Grade - I.	Cum	88027.00
8.1.4	Nigeria teak wood Grade - I.	Cum	95357.00
8.1.5	Ghana teak wood Grade - I.	Cum	102644.00
8.1.6	Ivory coast wood Grade I	Cum	117345.00
8.2	Supplying and fixing wood work in frames of wall panelling, false ceiling partition wall etc. as per approved design and drawing including antitermite treatment.		
8.2.1	Hollock wood Grade - I.	Cum	40061.00
8.2.2	Chir wood Grade - I.	Cum	37565.00
8.3	Add extra in frames for circular members such as in fan lights, staircase railing etc.	Cum	10%

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
8.4	Providing and fixing fully panelled/partly panelled/ double leaf shutter frame for doors as per approved design and drawings with approved ordinary C.P./ oxidised steel fittings as per Annexure - 'A' and width of styles & top rails of 100mm and lock rails width of 150mm and bottom rails of 200mm width including teak wood beading of size 19mm x 12mm on both faces complete :		
8.4.1	35 mm thick		
8.4.1.1	Nigeria wood grade I	Sqm	2405.00
8.4.1.2	Ghana wood grade I	Sqm	2570.00
8.4.1.3	Shesham wood grade I	Sqm	2238.00
8.4.1.4	Ivory coast wood grade I	Sqm	2897.00
8.4.2	30 mm thick		
8.4.2.1	Nigeria wood grade I	Sqm	2135.00
8.4.2.2	Ghana wood grade I	Sqm	2276.00
8.4.2.3	Shesham wood grade I	Sqm	1978.00
8.4.2.4	Ivory coast wood grade I	Sqm	2560.00
8.5	Providing and fixing fully panelled /partly panelled double leaf shutters frame for windows and ventilators as per approved design and drawings with approved steel fittings as per Annexure 'A' and width of styles, bottom and top rails 75mm including intermediate rails 50mm wide, beading of 25mm x 15mm size on both faces :		
8.5.1	35 mm thick		
8.5.1.1	Nigeria wood grade I	Sqm	2155.00
8.5.1.2	Ghana wood grade I	Sqm	2295.00
8.5.1.3	Shesham wood grade I	Sqm	2002.00
8.5.1.4	Ivory coast wood grade I	Sqm	2577.00
8.5.2	30 mm thick		
8.5.2.1	Nigeria wood grade I	Sqm	1912.00
8.5.2.2	Ghana wood grade I	Sqm	2033.00
8.5.2.3	Shesham wood grade I	Sqm	1771.00
8.5.2.4	Ivory coast wood grade I	Sqm	2275.00
8.5.3	25 mm thick		
8..5.3.1	Nigeria wood grade I	Sqm	1671.00
8..5.3.2	Ghana wood grade I	Sqm	1766.00
8..5.3.3	Shesham wood grade I	Sqm	1540.00
8..5.3.4	Ivory coast wood grade I	Sqm	1972.00
8.6	Providing and fixing wood panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled and glazed shutter 25 mm to 40 mm thick		
8.6.1	Wood panel grade I		
8.6.1.1	Nigeria wood Grade I	Sqm	1943.00
8.6.1.2	Ghana wood grade I	Sqm	2077.00
8.6.1.3	Shesham wood grade I	Sqm	1800.00
8.6.1.4	Ivory coast wood grade I	Sqm	2345.00
8.6.2	IS 710- 1976 marked 9 mm thick commercial ply	Sqm	785.00
8.6.3	IS 710- 1976 marked 9 mm thick Teak ply BWR one side	Sqm	1358.00
8.6.4	IS 710- 1976 marked 9 mm thick Teak BWR ply both side	Sqm	1577.00
8.6.5	IS 710- 1976 marked 12 mm thick commercial ply	Sqm	937.00
8.6.6	IS 710- 1976 marked 12 mm thick Teak ply BWR one side	Sqm	1577.00
8.6.7	IS 710- 1976 marked 12 mm thick Teak ply BWR both side	Sqm	1796.00
8.6.8	Wire gauge 24 gauge 14 mesh of IS 1568-1970 marked 85 gauge of dia 0.56 mm	Sqm	602.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
8.6.9	SS wire gauge 14 mesh x 24 gauge	Sqm	883.00
8.6.10	4 mm plain float glass	Sqm	727.00
8.6.11	5 mm float glass	Sqm	883.00
8.6.12	8 mm thick glass	Sqm	1252.00
8.7	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	Sqm	11.00
8.8	Deduct for providing pin headed glass panes instead of ordinary float glass panes weighing 4 mm thick in doors, windows and clerestory windows, shutters (Area of opening for glass panes excluding portion inside rebate shall be measured).	Sqm	83.00
8.9	Extra for providing IS 1341-1992 marked Stainless Steel butt hinges instead of black enamelled M.S. butt hinges with necessary screws. (Shutter area to be measured).	Sqm	110.00
8.10	Extra for providing movable/ fixed Nigeria / Ghana /Ivory Teak wood grade - I louvers instead of wooden panels in column No.4 for Nigeria / Ghana/Ivory Teak wood door shutters.	Sqm	10 %
8.11	Providing Single leaf shutter instead of double leaf.	Sqm	20 %
8.12	Add extra for etching work in glass work as per direction of engineer incharge (Area of opening for glass panes excluding portion inside rebate shall be measured)	Sqm	20%
8.13	Providing and fixing external grade board solid core single leaf flush door shutters ISI 2202-67 marked using Phenol formal dehyderesin in glue both sides with approved steel fittings complete as per annexure 'A' :		
8.13.1	25 mm thick .		
8.13.1.1	Commercial Veneer both side	Sqm	1327.00
8.13.1.2	Decorative teak veneer One side	Sqm	1493.00
8.13.1.3	Decorative teak veneer both side	Sqm	1882.00
8.13.2	30 mm thick .		
8.13.2.1	Commercial Veneer both side	Sqm	1449.00
8.13.2.2	Decorative teak veneer One side	Sqm	1604.00
8.13.2.3	Decorative teak veneer both side	Sqm	1993.00
8.13.3	35 mm thick .		
8.13.3.1	Commercial Veneer both side	Sqm	1582.00
8.13.3.2	Decorative teak veneer One side	Sqm	1880.00
8.13.3.3	Decorative teak veneer both side	Sqm	2104.00
8.14	Extra for providing external lipping with 2nd class teak wood battens 6 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) Over item no. 8.13.	Sqm	122.00
8.15	Extra for providing vision panel not exceeding 0.1 Sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :	Each	111.00
8.16	Extra if louvers (not exceeding 0.2 sum) are provided in flush door shutters (overall area of door shutters to be measured). .	Sqm.	267.00
8.17	Extra for cutting rebate in flush door shutters for making double leaf shutter(Total area of the shutter to be measured).	Sqm.	86.00
8.18	Extra for providing other type of fittings as mention in annexure A (as approved by EI) :		
8.18.1	Brass fittings	Sqm.	20 %
8.18.2	Stainless steel fittings	Sqm.	10%

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
8.19	Providing and fixing Hollow core partition wall using 50x30 mm Chir wood frame 600 mm c/c on both directions,door opening as per drawing with steel fittings antitermite treatment complete as per specifications using :		
8.19.1	ISI 4 mm thick commercial ply with 0.80 mm mica with adhesive on both sides.	Sqm	1770.00
8.19.2	ISI 4 mm teak ply one side BWR	Sqm	1670.00
8.20	Providing and fixing wall panelling using soft wood frame of size 50x25mm @600 mm c/c in both directions duly treated with anti-termite treatment making grooves painting of grooves specification and drawing using :		
8.20.1	ISI 6 mm teak ply one side BWR	Sqm	1285.00
8.20.2	ISI 9 mm teak ply one side BWR	Sqm	1547.00
8.20.3	12mm thick Acoustical Board	Sqm	1235.00
8.20.4	12 mm thick one side laminated board Practical board (Phenol bonded)	Sqm	1514.00
8.21.1	Providing and fixing 50 mm thick resin bounded glass wool 32 kg/cum density wrapped in julties cloth bag (box type) and held in position using chicken mesh	Sqm	485.00
8.21.2	Providing and fixing Hassian cloth of approved colour and texture over soft wood frame glass wool & fibre glass tissuse paper	Sqm	271.00
8.22	Providing and fixing expandable fastners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work /CC/R.C.C. and making good etc. complete		
8.22.1	25 mm long	Each	12.00
8.22.2	32 mm long	Each	15.00
8.22.3	40 mm long	Each	16.00
8.22.4	50 mm long	Each	17.00
8.23	Providing and fixing Nigeria / Ghana /Ivory Coast Teak wood grade-I mouldings and beadings in droos and windows size :-		
8.23.1	50x12 mm	Mtr	78.00
8.23.2	50x20 mm	Mtr	110.00
8.23.3	25x12 mm	Mtr	62.00
8.23.4	25x20 mm	Mtr	77.00
8.24	Providing and fixing 18 mm thick, 150 mm wide pelmet of flat pressed 3 layer or graded wood particle board medium density grade I, IS : 3087 marked including top cover of 6 mm commercial ply wood conforming to IS: 303 BWR grade, nickel plate MS 20 mm dia curtain rod with nickel plated bracked including fixing with 25x3 mm MS flat 10 cm long all complete	Mtr	296.00
8.25	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete:		
8.25.1	12 mm	Mtr..	200.00
8.25.2	20 mm	Mtr..	231.00
8.26	Providing and fixing IS : 3564 marked Aluminium die cast body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete.	Each	786.00
8.27	Providing and fixing IS : 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc. complete.	Each	1058.00
8.28	Providing and fixing Bamboo jaffery/ fencing consisting of superior quality 25mm dia (Average) half cut bamboo placed vertically and fixed together with three numbers horizontal running members of wood in scantling of section 50X25mm fixed with nails and GI wire to existing surface complete as per direction of EI	Sqm	358.00
8.29	Providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws, plugs and priming coat on unexposed surface etc. complete 2nd class teak wood. 50x50mm (base and height)	Rm	158.00
8.30	Providing and fixing bright finished Mortice lock of approved make Godrej or equivalent with pair of CP handles for doors with necessary screws etc complete (Best make of approved quality) as per direction of Engineer-in-charge.	Each	436.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
8.31	Extra for providing Brass handle instead of CP handle	Each	10%
8.32	Providing and fixing Almirah lock (50 to 70 mm size)of approved make without pair of handles for door with necessary screws etc complete as per direction of Engineer-in-charge.	Each	130.00

CHAPTER : B-9
STEEL & FENCING WORKS

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
9.1	Structural steel work in single section fixed with or without connecting plate including cutting, hoisting (height upto 10 m), fixing in position and applying a priming coat of approved steel primer all complete.	Kg.	60.00
9.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting (height upto 10 m) , fixing in position and applying a priming coat of approved steel primer all complete:	Kg.	67.00
9.3	Steel work in built up tubular trusses including cutting, hoisting (height upto 10 m)fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete.		
9.3.1	Hot finished welded type tubes.	Kg.	87.00
9.3.2	Hot finished seamless type tubes.	Kg.	95.00
9.3.3	Electric resistance or induction butt welded tubes.	Kg.	114.00
9.4	Extra for hoisting and fixing for every additional one metre or part thereof beyond 10 mtr height.	Kg.	5.00
9.5	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as require including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.	Kg.	69.00
9.6	Providing and fixing pressed steel door frames conforming to IS 4351 manufactured from commercial mild steel sheet of 1.25 mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface including filling with CC 1:2:4(M15 grade) complete as directed by Engineer-in-charge :		
9.6.1	Profile B	Mtr.	372.00
9.6.2	Profile C	Mtr.	406.00
9.6.3	Profile E	Mtr.	439.00
9.7.1	Supply and fixing in cement mortar welded hand railing made out of MS round or square bars, flats etc. for staircase or verandah as per design complete in all respect (wooden or PVC hand railing to be paid extra) with priming coat of red oxide.	Kg.	71.00
9.7.2	Extra for providing D type pipe head as top of hand railing	Kg.	10.00%
9.8.1	Providing and fixing steel gate, grating , and grills made of angles, tees, square bars, flats,or black pipe with holdfast and fittings complete as per design and drawing including cutting welding and fabrication with priming coat of red oxide	Kg.	83.00
9.8.2	Extra if square,rectangular hollow tubelar sections are used or grill made by flats only	Kg.	10.00%
9.9	Providing and fixing cow catcher made of R.S. joist angles channels MS rounds including cutting welding and fabrication with priming coat of red oxide (as per design).	Kg.	64.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
9.10	Providing and fixing in position collapsible steel shutters with vertical M.S. Channels 20 x 10 x 2mm and bracket with flat iron diagonals 20 x 5mm. size with top and bottom rail of T-iron 40 x 40 x 6mm. with 40mm dia steel pulleys/ball bearing complete with bolts, nuts locking arrangements inside and outside stoppers, handles etc. as per specification including applying a priming coat of approved steel primer. (To be measured and paid as per outer dimension).	Sqm.	4480.00
9.11	Providing and fixing 1mm thick M.S. sheet sliding-shutters with frame & diagonals braces of 40 x 40 x 6mm. angle iron 3mm M.S. gusset plates at the junction and corners, 25mm dia pulley 40x40x6mm angle and T-iron guide at the top and bottom respectively including applying a priming coat of approved steel primer.	Sqm	3099.00
9.12	Providing and fixing 1mm thick M.S. sheet garrage door shutters with frame of 40 x 40 x 6mm. angle iron 3mm M.S. gusset plates at the junction and corners including all fittings and applying a coat of approved steel primer : (Excluding cost of frames)		
9.12.1	Using M.S. angles 40 x 40 x 6mm for diagonal braces.	Sqm.	2719.00
9.12.2	Using flats 30 x 6mm for diagonal braces and central cross piece.	Sqm.	2592.00
9.13	Supplying and fixing rolling shutters of approved make, made of 80 x 1.25mm. M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including cost of spring hooks, providing and fixing necessary 25.3cm. long wire springs grade No. 2 and M.S. top cover 1.25mm thick for rolling shutters as per design & IS 6248- 1979. (Clear openable area to be measured for navment).	Sqm.	1796.00
9.14	Providing & fixing ball bearing for rolling shutters	Each	447.00
9.15	Extra for providing mechanical device chain and crank operation for operating rolling shutters.		
9.15.1	Exceeding 10.00 Sqm and upto 16.80 Sqm in the area.	Sqm.	713.00
9.15.2	Exceeding 16.80 Sqm in the area.	Sqm.	768.00
9.16	Extra for providing grilled rolling shutters manufactured out of 8 mm dia. M.S. bar instead of laths as per design approved by Engineer-in-charge. (area of grill to be measured).	Sqm.	283.00
9.17.1	Providing and fixing M.S. sheet 1mm thick single leaf door shutter in angle iron frame 35x35x5mm suitably diagonally braced with 25x3mm flat iron above and below lock rail of size 50x5mm beading extra including all fittings, as per direction of Engg. incharge but excluding cost of chowkhats: including two coats of anit-corrosive red oxide primer paint	Sqm.	2484.00
9.17.2	Extra for double leaf shutters.	Sqm.	20%
9.18	Fixing standard steel glazed doors, windows and ventilators in walls with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including fixing of glass panes with glazing clips and special metal-sash putty of approved make, or metal beading with screws (only steel windows with lugs, glass pane cut to size and glazing clips or metal beading with screws, shall be supplied by department free of cost.)	Sqm.	241.00
9.19	Providing and fixing steel glazed doors windows and ventilator shutters of standard rolled steel section (IS 1038-1983) joints mitred and welded with steel lugs 13x3mm, 10cm. long embedded in cement concrete block 15x10x10cm. of 1:3:6 (1cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws with fixing clips or with bolts and nuts as required including providing and fixing of plain glass panes 4mm thick with cooper glazing clips and special metal sash putty of approved make or metal beading with screws complete including priming coat of approval steel primer, excluding the cost of metal beading and other fitting except necessary hinges of pivots steel handles peg stay etc. as required :		
9.19.1	Doors	Sqm.	2683.00
9.19.2	Windows fixed	Sqm.	2676.00
9.19.3	Windows side hung /Ventilators top or centre hung (openable)	Sqm.	2715.00
9.19.4	Partly fixed and partly openable [fixed area not to exceed 33%]	Sqm.	2676.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
9.20	Providing brass handles/peg stays and fittings in place of oxidized fitting	Sqm.	5.00%
9.21	Aluminium handles/peg stays fitting instead of oxidized fitting.	Sqm.	3.00%
9.22	5mm thick plain glass instead of 4mm thick plain glass	Sqm.	82.00
9.23	Deduct for Not providing glass panels	Sqm.	270.00
9.24	Deduct for Pin headed 4mm thick glass panels is used instead of 4mm thick plain glass	Sqm.	5.00%
9.25	Deduct for Not provided oxidised fittings.	Sqm.	5.00%
9.26	Supplying and fixing fixed wire gauge of 14 mesh x 24 gauge to the metal frame of rolled section by metal beading 20x3mm with suitable screw at not exceeding 150mm distance.	Sqm.	535.00
9.27	Providing and fixing Square bars or other flat welded to window, ventilations etc.	Kg.	57.00
9.28	Providing and fixing steel glazed window frame made out of 80x40 mm hollow sheet section of 16 gauge thickness, joint mitred welded and grinded including hold fast of steel lugs 13mm x 3mm and 15 Cm long embedded in C C block 15 x 10 x 10 Cm of 1:3:6 nominal concrete and including fixing of pivoted hinges of superior quality, window shutters made out of 50 x 25.0 mm hollow steel section 15 mm paitam of 18 gauge thickness, joint mitred and grinded including 10mm x 10mm square bars welded to frame for paitam fixing float glass 4mm thick panes with glazing clips and metal sash putty and fixing of shutters frames peg stay, U shape handle 100 mm long, tower bolts 100 mm long of steel powder coated superior quality including fixing and jointing with frame hinges priming coat with steel primer complete in all respect as per direction of Engineer-in-charge		
9.28.1	Window openable.	Sqm	3293.00
9.28.2	Window fixed.	Sqm	3061.00
9.28.3	Extra for additional shutter in pipe section windows with wire gauge 14 mesh x 24 gauge	Sqm	1433.00
	FENCING WORK		
9.29	180cm high fencing with angle iron post 55x55x6mm. placed at every 3Mtr. apart 45cm. in ground embedded in cement concrete 1:3:6 (30x30x60cm) corner and every tenth post to be strutted with 55x55x6mm. angle iron provided with 6 horizontal lines and two diagonals of black barbed wire between two posts fitted and fixed with G.I. staples including earth work in excavation etc. complete.	Mtr.	508.00
9.30	150cm high fencing with angle iron 50x50x6mm. placed at every 3Mtr. apart 30cm. in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner and every tenth post to be strutted with 50x50x6mm. angle iron provided with 6 horizontal lines and two diagonals of black barbed wire between two posts fitted and fixed with G.I. staples including earth work in excavation etc. complete.	Mtr.	464.00
9.31	120cm. high fencing with angle iron posts 50x50x6mm. placed at every 3 Mtr. apart 30cm. in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner & every tenth posts to be strutted with 50x50x6mm angle iron provided with three horizontal lines and two diagonals of black barbed wire between two posts fitted and fixed with G.I. staple including earth work in excavation etc. complete.	Mtr.	438.00
9.32	150 cm high fencing of precast R.C. posts of 15cmx15cm tapered to 10x10cm at top placed at every 3m apart 30cm in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner and every tenth posts to be strutted with same R.C. posts provided with 6 horizontal lines and two diagonals of black barbed wire between the two posts fitted and fixed with G.I. staples including earth work in excavation etc. complete	Mtr.	436.00
9.33	Add or deduct for each wire line over basic item	Mtr.	10.50
9.34	Add or deduct for additional or less higher per 10 Cm. over basic item	Mtr	5.00%
9.35	Extra for using galvanized barbed wire instead of black barbed wire.	Mtr. Each wire	5.00%

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
9.36	Supplying and fixing of chain link fencing with angle iron posts 50x50x6mm placed at every 3 Mtr. apart 30cm in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner and every tenth post to be strutted with (50 x 50 x 6cm) angle iron provided and fixed and fitted with posts including earth work in excavation etc. complete with chain link size.		
9.36.1	50mm x 50mm x 3.15mm	Sqm.	545.00
9.36.2	75mm x 15mm x 3.15mm	Sqm.	490.00
9.36.3	100mm x 100mm x 3.15mm	Sqm.	452.00
9.36.4	150mm x 150mm x 3.15mm	Sqm.	416.00
9.37	Providing and fixing concertina coil fencing with required dia 610 mm (having 15 nos. round per 6 metre length) up to 3m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. stud tied with GI staples and GI clips to retain horizontal including necessary bolts or GI barbed wire tied to angle iron all complete as per direction of Engineer In Charge with reinforced barbed tape (R.B.T./Spring core(2.5 mm thick) wire of high tensile strength of 165 kg/sq.mm with tape (0.52 mm thick) and weight 43.478 gm/metre (Cost of MS angle, CC block shall be paid extra)	Mtr.	231.00
9.38	Providing and fixing welded mesh/expanded metal mesh in frame work, flat iron beading 20x3mm including top cross laps inside and out sides welding, iron bolts, crews, clips etc. complete (excluding frame work) of size.		
9.38.1	Welded mesh 50 mmx 50 mm x 2.1 mm	Sqm.	600.00
9.38.2	Welded mesh 50 mmx 25 mm x 2.1 mm	Sqm.	630.00
9.38.3	Welded mesh 25 mmx 25 mm x 2.1 mm	Sqm.	612.00
9.38.4	Expanded metal size 20-25 mm size 18SWG	Sqm.	620.00
9.39	Providing and fixing of double leaf steel shutter for cupboard, the frame is made of pressed steel ISI section 80x25 mmx 1.25 mm thick with 1.00 mm MS sheet to spot welded including holdfasts of 15x3mm, MS oxidized fittings such as butt hinges, sliding doors bolts, handles, tower bolts and twin peg etc complete including applying priming coat of approved steel primer of red oxide zinc chromate and spray painting in approved shade with deco paint of approved quality complete as per direction of Engineer In Charge	Sqm	3373.00

CHAPTER : B-10 ROOFING

Note :

- 1 Rates are for complete item of work and are inclusive of all centering, shuttering, curing and finishing including all leads and delivery of material at site of work with all lead and lift.
- 2 The rates for G.I. sheet roofing are inclusive of all necessary, overlaps and wastage in cutting and all standard screws nuts washers bolts and nuts 'J' or 'L' hooks etc. required as per specifications.
- 3 All precautions shall be taken to ensure that the finished roof is water tight and without any leakage under all weather conditions. Particular care shall be taken in providing good workmanship specially at vulnerable points.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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GALVANISED IRON SHEET ROOFING

10.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (upto any pitch in horizontal/ vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape whenever required.		
10.1.1	1.00 mm thick with zinc coating not less than 275 gm/m ²	Sqm	822.00
10.1.2	0.80 mm thick with zinc coating not less than 275 gm/m ²	Sqm	695.00
10.1.3	0.63 mm thick with zinc coating not less than 275 gm/m ²	Sqm	586.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
10.2	Extra for straight cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sq. decimetre for chimney stacks, sky light etc. :	P.Mtr. Perimeter	28.00
10.3	Extra for circular cutting in C.G.S. sheet roofing for making opening of area exceeding 40 square decimetre :	P.Mtr. Perimeter	130.00
10.4	Providing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete.		
10.4.1	0.80mm thick with zinc coating not less than 275	Mtr.	457.00
10.4.2	0.63mm thick with zinc coating not less than 275	Mtr.	401.00
10.5	Providing valleys of 90cm wide overall in plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts 8mm dia. G.I. limpet and bitumen washers complete : 1.60mm thick with zinc coating not less than 350gm/m ²	Mtr.	852.00
10.6	Providing flashing of 40 cm over all width in plain, G.S. sheet fixed with polymer coated J, or L hooks, bolts and nuts, G.I. limpet and bitumen washer complete, bent to shape and fixed in wall with cement mortar 1:3 (1cement : 3 coarse sand) 1.00mm thick sheet	Mtr.	325.00
10.7	Providing and fixing 15 cm wide 45 cm over all semi circular plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete.		
10.7.1	0.80mm thick	Mtr.	421.00
10.7.2	0.63mm thick	Mtr.	368.00
10.8	Providing non-asbestos high impact Polypropylene reinforced cement 6 mm thick corrugated sheets (As per IS: 14871) roofing upto any pitch and fixing with polymer coated J, or L hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete excluding the cost of purlins, rafters and trusses corrugated sheets and including cutting to size and shape wherever required	Sqm	348.00
10.9	Extra for straight cutting in non- asbestos polypropylene reinforced cement corrugated, semi-corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square decimetre for chimney stacks, skylights etc.	Mtr.	25.00
10.10	Extra for circular cutting in non-asbestos polypropylene reinforced cement corrugated/ semi-corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square decimetre.	Mtr.	68.00
10.11	Extra for providing and fixing wind ties of 40x 6mm flat iron section.	Mtr.	103.00
10.12	Providing and fixing ridges and hips in non-asbestos fibre cement high impact polypropylene reinforced roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete.		
10.12.1	One piece corrugated serrated adjustable ridges	Mtr.	352.00
10.12.2	Plain wing adjustable ridges	Mtr.	376.00
10.12.3	Close fitting adjustable ridges	Mtr.	464.00
10.12.4	Unserrated adjustable hips	Mtr.	400.00
10.13	Providing and fixing non-asbestos fibre cement high impact polypropylene reinforced roofing accessories in all colours with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers or with self drilling fastener and EPDM washer etc. complete :		
10.13.1	Corrugated apron pieces	Mtr.	238.00
10.13.2	Eaves filler pieces	Mtr.	163.00
10.13.3	North light curve	Mtr.	353.00
10.13.4	Ventilator curve	Mtr.	442.00
10.13.5	Barge boards	Mtr.	361.00
10.13.6	Ridge final	pair	148.00
10.13.7	Special north light ventilator curve	Each	464.00
10.13.8	S type louvers	Mtr.	252.00
10.14	Providing flat iron brackets 50x3mm size with necessary bolts, nuts and washers etc. for fixing asbestos cement/G.S. sheets gutters with purlins.	Mtr.	38.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
10.15	Painting top of roofs with bitumen of approved quality at 17kg per 10 sum impregnated with a coat of coarse sand at 60 cudm per 10sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete: With residual type petroleum bitumen of penetration 80/100	Sqm	130.00
10.16	Stone slab roofing on ground floor with fine grained stone slab from approved quarry including filling of joints of parapet and slab on both sides in cement sand mortar 1:4, with ceiling pointing in cement sand mortar 1 : 3 complete as per specification and instruction of Engineer In Charge	Sqm	1498.00
10.16.1	Add extra for subsequent story	Sqm	20%
10.17	Grading roof for water proofing treatment with water proffing compound		
10.17.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	4075.00
10.17.2	Cement mortar 1:3 (1 cement : 3 coarse sand)	Cum	5310.00
10.17.3	Cement mortar 1:4 (1cement : 4 coarse sand)	Cum	4420.00
10.18	Providing and laying brick kharanja on roofs with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound in square pattern		
10.18.1	75mm to 100mm thick average	Sqm	252.00
10.18.2	55mm to 60mm thick average	Sqm	228.00
10.19	Providing and laying brick tiles of class designation 100 over roofs grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement, over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat .	Sqm	325.00
10.20	Providing and fixing 20 mm thick precast terrazzo tiles of approved make, with marble chips of size upto 6mm laid over roof with neat cement slurry mixed with pigment to match the shade of the tiles, including cutting ,grinding rubbing with machine complete on 20 mm thick bed of cement sand mortar 1 : 4.	Sqm	318.00
10.21	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations. (a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with proprietary water proofing compound conforming to IS. 2645 over the RCC slab including cleaning the surface before treatment. (b) Laying cement concrete using broken bricks/brick bats 25 mm to 100mm size with 50% of cement mortar 1:4 (1 cement : 4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. (c) After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 and finally finishing the surface with trowel with neat cement slurry and making of	Sqm	430.00
10.22	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :	Mtr.	101.00
10.23	Making khurras 450 x 450mm with average minimum thickness 50mm cement concrete 1 : 2:4 over P.V.C. Sheet 1 Mtr. x 1 Mtr. x 40micron finished with 12mm cement plaster 1 : 3 and one coat of neat cement, rounding edges and making and finishing the out let complete.	Each	140.00
10.24	Providing & laying broken glazed titles on roof (broken glazed tiles not less than 9 Kg/Sqm) on top of hot bitumen @ 1.7 Kg/Sqm. (1.40 Kg of VG-40 (30/40)grade and 0.30 Kg/Sqm. Of VG-10 (80/100) grade) and joints filled with cement mortar 1 :2 (1 cement:2 marble dust mixed with water proofing compund all complete as per direction of Engineer-in-charge.	Sqm	288.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
10.25	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing upto any pitch including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% Ultra-voilet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		
10.25.1	2.0mm thick (Wt. 3.3 Kg./Mtr. Sq.)	Sqm	911.00
10.25.2	3.0mm thick (Wt. 5.0 Kg./Mtr. Sq.)	Sqm	1231.00
10.25.3	5.0mm thick (Wt. 8.4 Kg./Mtr. Sq.)	Sqm	1872.00
10.26	Extra for corrugated Fiberglass Reinforced Plastic (FRP) (2.5" /4.2"/6") or step down (2.5" /4.2"/6") as specified.	Sqm	10%
FALSE CEILING			
10.27	Providing and fixing 12.5 mm thick tapered edge gypsum board conforming to IS 2095-Part I at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm dia x 230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long pins all around @ 220mm interval including jointing and fixing to a	Sqm	750.00
10.28	Providing and fixing 14 mm thick Acoustical with fine fissured tiles/ Mineral fibre high density tiles with butt edges false ceiling tiles of size 595x595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 170 gsm/sqm.) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 21x21x0.30 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised level clip spaced at 1200mm	Sqm	966.00
10.29	Providing & fixing 12 mm thick tegular edge Glass Fibre Reinforced Gypsum False ceiling tiles of size 595 x 595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 170 gsm/sqm.) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 21x21x0.30 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised level clip spaced at 1200mm center to center along main T, bottom exposed	Sqm	1241.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
10.30	Providing and fixing calcium silicate board false ceiling at all heights including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm diax40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm diax230mm long G.I. wire at every junction including fixing the calcium silicate board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and covers edges of the board with		
10.30.1	6 mm thick	Sqm	830.00
10.30.2	8 mm thick	Sqm	932.00
10.31	Providing & fixing calcium silicate ceiling tiles of size 595 x 595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanised @ 170 gsm/sqm.) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 21x21x0.30 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised level clips spaced at 1200mm center to center along main T, bottom exposed width of 24mm of all T sections shall be provided		
10.31.1	6 mm thick	Sqm	590.00
10.31.2	8 mm thick	Sqm	677.00
10.32	Providing and fixing calcium silicate perforated board false ceiling at all heights including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm diax40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm diax230mm long G.I. wire at every junction including fixing the calcium silicate board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and covers edges of the board with		
10.32.1	6 mm thick	Sqm	1071.00
10.32.2	8 mm thick	Sqm	1197.00
10.33	Providing & fixing calcium silicate perforated ceiling tiles of size 595 x 595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanised @ 170 gsm/sqm.) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 21x21x0.30 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised level clips spaced at 1200mm center to center along main T, bottom exposed width of 24mm of all T sections shall be provided		
10.33.1	6 mm thick	Sqm	777.00
10.33.2	8 mm thick	Sqm	899.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
10.34	<p>Providing and fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture as per direction of Engineer-in-charge of size 595 X 595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanizing @120 grams per sqm) consisting of main 'T' runner suitably spaced at joints to get required length and size of 24X38mm made from 0.33 mm thick (minimum) sheet, 1200mm centre to centre, and cross 'T' of size 24X32mm made out of 0.33mm (Minimum) sheet, 1200mm long spaced between main 'T' at 600mm centre to centre to form a grid of 1200X600mm and secondary cross 'T' of length 600mm and size 24X32mm made out of 0.33 mm thick (Minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grid of size 600X600mm resting on periphery walls/partitions on a perimeter wall angle pre-coated steel of size (24X24X3000mm made of 0.40mm thick (minimum) sheet with the help of rawl plugs at 450mm centre to centre with 25mm long dry wall screws @ 230mm interval</p> <p>and laying 15mm thick densified edged calcium silicate ceiling tiles of approved texture in the grid including cutting /making opening for services like diffusers, grills, light fitting, fixtures, smoke detectors etc., wherever required, Main 'T' runners to be suspended from ceiling using 50 mm long M 6 dash fasteners, 6mm G.I. fully threaded rods with galvanised steel L cleat level adjusters of size 80x25x2mm, spaced at 1200mm centre to centre long main 'T' bottom exposed with 24mm of all T-sections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawing and as directed by engineer-in-charge.</p> <p>Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs)having area less than 0.30 Sqm. The calcium silicate ceiling tiles shall have NRC. Value 0.50 (Minimum), light reflection> 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity ≤ 0.043 w/m²KC.</p>	Sqm	1870.00

CHAPTER : B-11 FLOORING WORKS

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
BRICK FLOORING			
11.1	Brick on edge flooring with bricks of class designation 75 including cement slurry & pointing in CM (1 : 3) etc. complete laid on 20 mm thick bed of :		
11.1.1	Cement Sand Mortar 1 : 4	Sqm	442.00
11.1.2	Cement Sand Mortar 1 : 6	Sqm	422.00
11.2	Dry brick on edge flooring in required pattern with bricks of class designation 75 on a bed of 12 mm mud mortar including filling joints with River sand complete.	Sqm	390.00
CEMENT CONCRETE FLOORING			
11.3	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, making of lines or groove etc complete but excluding the cost of nosing of steps etc. complete.		
11.3.1	40mm thick with 20mm thick nominal size aggregate.	Sqm	240.00
11.3.2	75mm thick with 20mm thick nominal size aggregate.	Sqm	397.00
11.4	Providing and fixing 50mm thick cement concrete flooring with Metallic concrete hardener topping, under layer of 38mm thick cement concrete 1:2:4 (1-cement : 2-coarse sand : 4-graded stone aggregate 20mm thick nominal size) and top layer of 12mm thick metallic concrete hardener consisting of mix 1:2 (1 cement : 2 stone aggregate, 6mm nominal size) by volume & mixed with metallic hardening compound of approved quality @ 2Kg./Sqm including cement slurry, rounding off edges etc. but excluding the cost of nosing of step etc. complete.	Sqm	393.00
11.5	Cement plaster in skirting and/dado 18 mm thick with cement mortar 1:3 (1 cement : 3 course sand) finished with a floating coat of neat cement including rounding of junctions with floor	Sqm	246.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
TERRAZZO FLOORING			
11.6	40mm thick marble chips flooring rubbed and polished to granolithic finish under layer 31mm thick cement concrete 1:2:4 (1 cement : 2 course sand : 4 graded stone aggregate 12.5mm nominal size) including fixing of dividing strip (excluding the cost of strips) and top layer 9mm thick with marble chips of approved colour & 4mm to 7mm nominal size laid in cement marble chips 2 : 3 (2 cement : 3 marble chips) by volume including cement slurry etc. complete		
11.6.1	Dark shade pigment with ordinary cement.	Sqm	420.00
11.6.2	Light shade pigment with ordinary cement.	Sqm	613.00
11.6.3	Medium shade pigment with approximately 50% white cement and 50% ordinary cement.	Sqm	467.00
11.6.4	White cement without any pigment.	Sqm	451.00
11.6.5	Light shade pigment with white cement.	Sqm	413.00
11.6.6	Ordinary cement without any pigment.	Sqm	390.00
11.7	40mm thick marble chips flooring rubbed and polished to granolithic finish under layer 28mm thick cement concrete 1:2:4 (1 cement : 2 course sand : 4 graded stone aggregate 12.5mm nominal size) including fixing of dividing strip (excluding the cost of strips) and top layer 12mm thick with marble chips of approved colour 7mm to 10mm nominal size laid in cement marble chips mix by weight in proportion of 2 : 3 (2 cement : 3 marble chips) by volume including cement slurry etc. complete :		
11.7.1	Dark shade pigment with ordinary cement.	Sqm	450.00
11.7.2	Light shade pigment with ordinary cement.	Sqm	518.00
11.7.3	Medium shade pigment with approximately 50% white cement and 50% ordinary cement.	Sqm	493.00
11.7.4	White cement without any pigment.	Sqm	487.00
11.7.5	Light shade pigment with white cement.	Sqm	508.00
11.7.6	Ordinary cement without any pigment.	Sqm	406.00
11.8	Marble chips skirting/dado rubbed and polished to granolithic finish 6mm thick with white marble chips of approved colour and size from smallest to 4mm nominal size laid in cement marble chips mix in proportion of 4:7(4 cement : 7 marble chips) by volume including fixing of dividing strips (excluding the cost of strips) complete in all respects : 18mm thick with under layer of 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) :		
11.8.1	Dark shade pigment with ordinary cement.	Sqm	541.00
11.8.2	Light shade pigment with ordinary cement.	Sqm	578.00
11.8.3	Medium shade pigment with approximately 50% white cement and 50% ordinary cement.	Sqm	562.00
11.8.4	White cement without any pigment.	Sqm	563.00
11.8.5	Light shade pigment with white cement.	Sqm	538.00
11.8.6	Ordinary cement without any pigment.	Sqm	522.00
11.9	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.		
11.9.1	40mm wide and 4mm thick	Mtr.	27.00
11.9.2	20mm wide and 3mm thick for skirting.	Mtr.	15.00
11.10	Extra for laying terrazo flooring on staircase treads not exceeding 30 cm in width including cost of forming, nosing etc.	Sqm	23.00
11.11	Extra for terrazzo flooring in narrow band bands not exceeding 7.5cm in width.	Sqm	13.00
11.12	Crazy marble stone flooring 20mm thick marble stone with black or of specified colour topping including filling the gaps with cement marble chips mix in proportion of 4 : 7 (4cement : 7 white black or white or black marble chips) size from 1mm to 4mm by volume and under layer of 25mm thick cement concrete [1:2:4, graded stone aggregate 12.5mm nominal size] rubbing and polishing and cement slurry etc. complete : In ordinary cement.	Sqm	501.00
TILE FLOORING			
11.13	Precast terrazo tiles of approved make, 20mm thick with marble chips of size upto 6mm laid in floors, and landing, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete on 20mm thick bed of cement sand mortar 1 : 4.		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
11.13.1	Light shade using white cement.	Sqm	470.00
11.13.2	Medium shade using approximately 50% white cement and 50% ordinary cement.	Sqm	476.00
11.13.3	Dark shade using ordinary cement.	Sqm	410.00
11.13.4	Ordinary cement without any pigment.	Sqm	462.00
11.14	Extra if terrazzo tiles are laid in treads of steps not exceeding 30 cm in width.	Sqm	28.00
11.15	Precast terrazzo tiles of approved make 20mm thick with marble chips of size upto 6mm in skirting & risers, treads of steps and dados 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete with tiles of :		
11.15.1	Light shade using white cement.	Sqm	598.00
11.15.2	Medium shade using approximately 50% white cement and 50% ordinary cement.	Sqm	590.00
11.15.3	Dark shade using ordinary cement.	Sqm	582.00
11.15.4	Ordinary cement without any pigment.	Sqm	591.00
11.16	Providing & laying Chequered terrazzo tiles of approved make 22mm thick with marble chips of size upto 6mm, in floors, jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and polishing complete in all respect as per specification, on 28mm thick bed of C.M. 1:4 :		
11.16.1	Light shade using shade cement.	Sqm	593.00
11.16.2	Medium shade using approximately 50% white cement and 50% ordinary cement.	Sqm	592.00
11.16.3	Dark shade using ordinary cement.	Sqm	536.00
11.16.4	Ordinary cement without any pigment.	Sqm	493.00
11.16.5	Add extra for non slipping 9-12 mm ironite topping tiles	Sqm	10%
11.17	Chequered precast cement concrete tiles 22 mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand)		
11.17.1	Light shade using shade cement.	Sqm	495.00
11.17.2	Medium shade using approximately 50% white cement and 50% ordinary cement.	Sqm	583.00
11.17.3	Dark shade using ordinary cement.	Sqm	453.00
11.17.4	Ordinary cement without any pigment.	Sqm	410.00
KOTA STONE FLOORING			
11.18	Kota stone slab flooring 25 mm thick over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand)		
11.18.1	For area of each slab from 901 to 2000 Sq.Cm :	Sqm	823.00
11.18.2	For area of each slab from 2001 to 5000 Sq.Cm	Sqm	886.00
11.19	Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete		
11.19.1	For area of each slab upto 2001 Sqcm	Sqm	790.00
11.19.2	For area of each slab from 2001 to 5000 Sqcm	Sqm	868.00
11.20	Rough Chisel dressed Kota stone 35 mm thick flooring of approved shade set in pattern over 20mm thick base of cement mortar 1:6 (1 cement : 6 coarse sand) and pointing with cement sand mortar 1:3 with pigment to match the shade of stone with joint thickness up to 15 mm complete in all respects :	Sqm	543.00
SAND STONE FLOORING			
11.21	Rough Chisel dressed Sand stone 35 mm thick flooring of approved shade set over 20mm thick base of cement mortar 1:6 (1 cement : 6 coarse sand) and pointing with cement sand mortar 1:3 with pigment to match the shade of stone with joint thickness up to 15 mm complete in all respects :		
11.21.1	Red sand stone (Karauli stone)	Sqm	537.00
11.21.2	Pink sand stone (Bansi Paharpur stone)	Sqm	566.00
11.21.3	Mandana stone	Sqm	566.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
11.22	Fine dressed & machine cut edges 30-35 mm thick sand stone flooring over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) jointed grey cement slurry mixed with pigment to match the shade of stone complete as per design drawing and instruction of EI.		
11.22.1	Red sand stone (Karauli stone)	Sqm	670.00
11.22.2	Pink sand stone (Bansi Paharpur stone)	Sqm	765.00
11.22.3	Mandana stone	Sqm	765.00
11.23	Fine grinded Gangsaw cut 30-35 mm thick stone flooring over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) jointed grey cement slurry mixed with pigment to match the shade of stone complete as per design drawing and instruction of EI.		
11.23.1	Red sand stone (Karauli stone)	Sqm	715.00
11.23.2	Pink sand stone (Bansi Paharpur stone)	Sqm	812.00
11.23.3	Mandana stone	Sqm	812.00
11.24	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	Sqm	62.00
11.25	Extra for Mirror polishing on terrazzo/Kota stone work where ever required to give high gloss finish complete.	Sqm	105.00
11.26	Random rubble dry stone Kharanja under floor.	Cum	807.00
11.27	Filling of sunk portion of roof with earthen pots of required height including filling voids with 1:3:6 light concrete, using brick bats complete levelling and dressing the surface by 50mm thick cement concrete 1:2:4 as per specification.	Cum	1231.00
11.28	Providing and fixing of precast concrete interlocking blocks of M 30 grade 60mm thick manufactured from fully computerised automatic stationery hydraulic vibropressed machine and fully computerised automatic batching plant of class A1/A2 as per BS 6717:2001. The CC interlocking paving blocks be laid on average 50mm. thick bed of coarse sand and the joint is to be filled with fine sand. Laying procedure on compacted sub-base as defined. Complete job is to be executed as per the instruction of Engineer incharge. The rates to be inclusive of all lead, Lifts and taxes. General specification of blocks: 1) Shape as defined by Engineer incharge 2) Tensile splitting strength and braking load as per BS 6717:2001 3) Color: Grey cement natural colour 4) Variation in dimension: Less than 1.6mm. 5) Variation in thickness: Less than 3.2mm 6) Abrasion: As per BS: 6717:2001	Sqm	456.00
11.29	Providing and fixing designer cement concrete polished tiles over 20mm average thick base of CM 1 :4 (1 Cement : 4 sand) jointing with cement mortar 1 :2 (1 cement : 2 sand) with pigment to match the shade of the tiles complete with all respect.	Sqm	1122.00
11.30	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) including making joints with without grooves (thickness of joints except at sharp curve shall not to more than 5mm) including making drainage opening wherever required complete including painting etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineerin- charge).	Cum	5416.00
11.31	Providing and laying M30 grade controlled cement concrete pavements including mixing and vibrations concrete with necessary needle vibrators and surface with screed board vibrating complete in all respect with 20/25 mm stone aggregate (crusher broken) including anti-skid textured finish to required camber/ super lavation and grade including curing etc. as per specification with cement concrete M-30 grade including cost of Steel frame work for sides of C.C. pavement consisting of M. S. channels flats and angles with required steel pegs (some of them may left embedded in concrete/ including providing frame work	Cum	4775.00
11.32	Extra for vacuum processed concrete including cost of equipments labour etc.	Sqm.	88.00
11.33	Cutting of construction joint/ longitudinal joint 4 to 6 mm. wide using mechanical concrete cutter including cost of diamond bit cutting wheel and filling of bitumen sealing compound in groove including cost of sealing compound.		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
11.33.1	25 mm depth	P Mtr.	40.00
11.33.2	50 mm depth	P Mtr.	81.00
11.33.3	75 mm depth	P Mtr.	121.00
11.33.4	100 mm depth	P Mtr.	162.00
WOODEN FLOORING			
11.34	25mm thick wooden planking, tongued and grooved in flooring including fixing with iron screws complete (Lower frame to be paid extra) with :First class Teak wood.	Sqm	2575.00
11.35	Providing and laying wooden flooring with a direct laminated surface treated with aluminum oxide on top of a high-density fiber board with a density of 850 Kg./per Mtr. having a click system tongue and groove joint to secure a long lasting joint. The planks are or termite resistant and water protected with both side lamination Wooden flooring Planks of size 1208 x 194 x 8 mm / 1215x294x8 mm (8mm thick laminated floor class of use 23/31 having a wear resistance level of AC-3 , impact resistance > 9mm, moisture resistance 3-10% as per (EN-424, EN – 438 EN – 425 EN – 417 – 2)or PREN 3329 complete in all respect as per direction of EI	Sqm	2001.00
11.36	Providing and laying of skirting 89 mm wide having both side laminations with molding in upper side with matching of floor fixing with nails and screws & fevicol complete in all respect as per direction of EI.	Rm	848.00
11.37	Providing and laying transaction/adaptation profile with fixing of nails, screws & fevicol complete in all respect as per direction of EI.	Rm	785.00
PVC FLOORING			
11.38	Providing and Fixing Cushion Vinyl/Fully flexible Vinyl Flooring confirming to I.S.-3462 Flooring of approved make with fibre base using rubber base adhesives including rolling with light wooden roller complete :		
11.38.1	1.0 mm thick.	Sqm	659.00
11.38.2	1.5 mm thick.	Sqm	751.00
11.38.3	2.0 mm thick.	Sqm	858.00
11.39	Providing and laying of paver block as per IS 15658 : 2006 (Indian standard for precast concrete block for paving- specification) and IRC : SP:63-2004 (guidelines for the use of interlocking concrete block pavement)		
11.39.1	M-30, 50 mm thick to be used in non traffic areas like building premises, monument premises, land scapes, public gardens/ park, domestic drives, paths and patios, Embankment slopes, sand stabilization Area etc.(As per table 1 of IS 15658:2006 Category A Denated units to key into each other on four faces zigzag shape as per IRC SP 63:2004	Sqm	684.00
(A)	Category 'B' Denated only two side like I,Z,T shape etc. as per IRC SP 63:2004	Sqm	656.00
(B)	Category 'C' not denated on any it's faces like Hexagon, Rectangular, square shape as per IRC SP 63:2004	Sqm	601.00
(C)			
11.39.2	M-35,60mm thick to be used in light traffic (Light traffic is defined as a daily traffic up to 150 commercial vehicles exceeding 30 KN laden weight, or an equivalent up to 0.5 million standard axles (MSA) for a design life of 20 years (A standard axle is defined as a single axle load of 81.6 KN) like pedestrian plazas, shopping complexes ramps, car parks, office driveways , housing colonies, office complexes, rural roads with low volume traffic, farm houses , beach sites, tourist resorts, local authority footways, residential roads, etc.		
(A)	Category A Denated units to key into each other on four faces zigzag shape as per IRC SP 63:2004	Sqm	878.00
(B)	Category 'B' Denated only two side like I,Z,T shape etc. as per IRC SP 63:2004	Sqm	851.00
(C)	Category 'C' not denated on any it's faces like Hexagon, Rectangular, square shape as per IRC SP 63:2004	Sqm	765.00
(C)			
11.39.3	M-40,80mm thick to be used in medium- traffic (Medium traffic is defined as a daily traffic of 150-450 commercial vehicles exceeding 30 KN laden weight, or an equivalent of 0.5 to 2.0 MSA for a design life of 20 years.) like city streets, small and medium market roads, low volume roads, utility cuts on arterial roads, etc		
(a)	Category A Denated units to key into each other on four faces zigzag shape as per IRC SP 63:2004	Sqm	1001.00
(b)	Category 'B' Denated only two side like I,Z,T shape etc. as per IRC SP 63:2004	Sqm	973.00
(c)	Category 'C' not denated on any it's faces like Hexagon, Rectangular, square shape as per IRC SP 63:2004	Sqm	917.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
11.39.4	M-50 100mm thick to be used in heavy-traffic (Heavy traffic is defined as a daily traffic of 450-1500 commercial vehicles exceeding 30 KN laden weight, or an equivalent of 2.0 to 5.0 MSA for a design life of 20 years.) like Bus terminals, industrial complexes, mandi houses roads on expansive soils, factory floor , service station, industrial pavements.etc.		
(A)	Category A Denated units to key into each other on four faces zigzag shape as per IRC SP 63:2004	Sqm	1212.00
(B)	Category 'B' Denated only two side like I,Z,T shape etc. as per IRC SP 63:2004	Sqm	1184.00
(C)	Category 'C' not denated on any it's faces like Hexagon, Rectangular, square shape as per IRC SP 63:2004	Sqm	1128.00
11.39.5	M-55 120mm thick to be used in very heavy-traffic (very heavy-traffic is defined as a daily traffic of more than 1500 commercial vehicle exceeding 30 KN laden weight, or an equivalent of more than 5.0 MSA for a design life of 20 years.) like container terminals, ports, block yards, mine access roads, bulk cargo handling areas, airport pavements, etc.		
(A)	Category A Denated units to key into each other on four faces zigzag shape as per IRC SP 63:2004	Sqm	1412.00
(B)	Category 'B' Denated only two side like I,Z,T shape etc. as per IRC SP 63:2004	Sqm	1384.00
(C)	Category 'C' not denated on any it's faces like Hexagon, Rectangular, square shape as per IRC SP 63:2004	Sqm	1328.00
11.40	Add extra over item No. 1A to E, if reflective paver block, manufactured with wet cast vibration system in two layers is used.	Sqm	10%
11.41	Add extra over rates of 1 A to E, if colored paver blocks are used	Sqm	20%
11.42	Providing and fixing 25 mm thick Non slippery reflective type designer paving tile with metallic hardening using 2 Kg/sq.mtr made out of cement concrete of required grade, sizes of tile upto 300X300 mm Manufactured with wet cast Vibration system in two layers and laid over base of 20 mm thick cement mortar 1:4 using neat cement slurry in cluding finishing of joints etc. complete.		
(A)	Using M-40 grade cement Concrete	Sqm	1307.00
(B)	Using M-30 grade cement Concrete	Sqm	1185.00
11.43	Add extra over item no. 1 (a) & (b) if colured wearing course as per IS 1237:1980 is used.	Sqm	20%

CHAPTER : B-12 FINISHING WORK

Note :

- 1 The rates are for complete work including racking of joints, curing, grinding, mixing and finishing T & P and scaffolding material and cost of material with all lead and lift
- 2 The rates cover protection of all places and things, requiring protection and cleaning such places and thing of all droppings and splashes of mortar etc.
- 3 The Rate for external plaster are for height up to 10 m from ground level unless otherwise stated.
- 4 Cement mortar is to be made by mechanical mixer only.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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CEMENT PLASTER

12.1	Plaster on new surface on wall in cement sand mortar 1:3 including racking of joints etc. complete fine finish :		
12.1.1	25 mm thick	Sqm.	193.00
12.1.2	20mm thick	Sqm	168.00
12.1.3	12mm thick	Sqm	131.00
12.2	Plaster on new surface on walls in cement sand mortar 1:4 including racking of joints etc. complete fine finish :		
12.2.1	25 mm thick.	Sqm	168.00
12.2.2	20mm thick .	Sqm	148.00
12.2.3	12mm thick .	Sqm	118.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
12.3	Plaster on new surface on walls in cement sand mortar 1:6 including racking of joint etc. complete fine finish :		
12.3.1	25 mm thick	Sqm	143.00
12.3.2	20mm thick.	Sqm	128.00
12.3.3	12mm thick.	Sqm	106.00
12.4	Plaster on new surface on walls in cement sand mortar 1:8 including racking of joint etc. complete fine finish :		
12.4.1	25mm thick.	Sqm	128.00
12.4.2	20mm thick.	Sqm	116.00
12.4.3	12mm thick.	Sqm	97.00
12.5	6 mm thick cement plaster to ceiling of mix 1:3 (1cement : 3-fine sand)	Sqm.	93.00
12.6	6mm thick cement plaster 1:3 (1cement : 3fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C slabs and beams.	Sqm.	130.00
12.7	Finishing with neat cement (punning).	Sqm	32.00
12.8	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	Kg.	37.00
ROUGH CAST PLASTER			
12.9	Rough cast plaster upto 10m height above ground level with a mixture of sand and gravel or crushed stone from 6mm to 10mm nominal size dashed over and including the fresh plaster in two layers, under layer 12mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement. Ordinary cement finish using ordinary cement	Sqm	295.00
12.10	Pebble dash plaster upto 10m height above ground level with a mixture of washed pebble or crushed stone 6mm to 12.5mm nominal size dashed over and including fresh plaster in two layers under layer 12mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) with 10% finely grounded hydrated lime by volume of cement	Sqm	280.00
12.11	Washed stone grit plaster on exterior walls of height upto 10 M. above level in two layers, under layer 12mm cement plaster 1:4 (1 cement : 4 coarse sand) furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2kg of cement per sqm, top layer 15 mm cement plaster 1:1/2:2 (1 cement : 1/2 coarse sand : 2 stone chipping size 10 mm nominal size) in panel with groove all around as per approved pattern including scrubbing and washing, the top layer with brushes and water to expose the stone chipping, complete as per specification and direction of Engineer in charge. (Payment for providing grooves shall be made separately)	Sqm	401.00
12.12	Forming groove of uniform size 15x15mm and upto 25x15mm in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specification and direction of Engineer in charge	Rm	22.00
12.13	Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.	Sqm	32.00
12.14	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Sqm	25.00
12.15	Extra for plastering on circular work not exceeding 6 m in radius:	Sqm	12.00
12.16	Extra for plastering done on moulding cornices or architraves including neat finish to line and level:		
12.16.1	In one coat	Sqm	182.00
12.16.2	In two coats	Sqm	301.00
12.17	Extra for plastering :		
12.17.1	Spherical ceiling	Sqm	47.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
12.17.2	Groined ceiling	Sqm	51.00
12.17.3	Flewing soffits	Sqm	31.00
12.18	Extra for lining out plaster to imitate stone or concrete blocks walling	Sqm	30.00
12.19	Making grooves as per design in plaster 10mm to 20mm wide.	Rm	6.00
12.20	Making of drip course (Tapka) in cement sand mortar 1:6 width upto 40 mm and 10 mm thick as per approved design	Rm	10.00
12.21	12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand) :		
12.21.1	Flush band.	Cm P Rm	2.20
12.21.2	Sunk band.	Cm P Rm	2.30
12.21.3	Raised Band	Cm P Rm	2.70
12.21.4	Moulded band.	Cm P Rm	4.50
12.22	Providing and applying white cement based putty over plastered surface to prepare the surface even and smooth complete	Sqm	73.00
12.23	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	60.00
12.24	Providing & Laying POP moulding & beading in ceiling including nailing & scaffolding etc. complete of size :		
12.24.1	25mm x 12mm	Rm	53.00
12.24.2	25mm x 25 mm	Rm	62.00
12.25	Providing & Laying POP Cornice of required design & pattern in ceiling including nailing & scaffolding etc. complete with fine finishing of size:		
12.25.1	50mm x 50mm	Rm	98.00
12.25.2	65mm x 65mm	Rm	108.00
12.25.3	75mm x 75mm	Rm	127.00
12.26	Lime plaster (up to 40 mm thick in 3 Coats) on new surface on walls with lime sand mortar 1:2 (1 lime putty : 2 sand) using admixture like Gur, Methi & Gugal @ 1.0 Kg./each for every 10 Sqm of area including racking of joints curing etc. complete	Sqm	306.00
12.27	Coloured Araish work 1 : 2 (1-lime putty : 2-Zikki) over lime plaster or plain back ground including preparation of lime for 6 months by slaking of lime with curd and changing the water every week. The kara plaster of not more than 6 mm thick is to be left for maximum of 3 months to appear the shrinkage & temperature cracks over the kara plaster 2 mm layer of grinded lime putty is to be done and is to be rubbed gently by Akik stone then inserting the design of colour border/ flowers/pictures etc including desired colour stone pigment to match the existing design/pattern after this, applying Khopra paste & rubbing with cloth to give a uniform picture. The work to be executed strict as per direction of Engineer Incharge	Sqm	3187.00
12.28	Yellow/pink colour wash with Khameera mixed with pigment including making gola garden, Kangoora and ornamental lining work as per approved Jaipur style and pattern complete in all respect as per direction of Engineer in Charge		
12.28.1	On New Surface (3 coats)	Sqm	77.00
12.28.2	On old Surface (3 coats)	Sqm	42.00
12.29	Extra for making Ornamental design like Kangooras Gola etc. as per Jaipur practice in cement plaster	Sqm	50%
12.30	Plaster on new surface on wall in low cost shree binder and sand mortar 1:3 including racking of joints etc. complete fine finish :		
	(Item is applicable only for non load bearing partition walls)		
12.30.1	25 mm thick	Sqm	102.00
12.30.2	20 mm thick	Sqm	95.00
12.30.3	12 mm thick	Sqm	83.00

POINTING

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
12.31	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand) :		
12.31.1	Flush / Ruled/ Struck or weathered pointing.	Sqm	70.00
12.31.2	Raised and cut pointing	Sqm	116.00
12.32	Pointing on stone masonry in cement sand mortar 1:3 (1 cement : 3 sand) :		
12.32.1	Flush / Ruled/ Struck or weathered pointing.	Sqm	98.00
12.32.2	Raised and cut pointing.	Sqm	183.00
12.33	Pointing on stone slab ceiling with cement mortar 1:2 (1 cement : 2 fine sand): Flush/ Ruled pointing	Sqm	57.00
12.34	Extra for pointing on walls on the outside at height more than 10 m from ground level for every additional height of 3 m or part there of.	Sqm	3.70
INTERIOR FINISHING			
12.35	White washing with lime to give an even shade including all scaffolding:		
12.35.1	New work (three or more coats).	Sqm	10.00
12.35.2	Old work (two or more coats) including scrapping old surface and repairing with whiting where ever necessary.	Sqm	5.00
12.35.3	Old work (one or more coats) including scrapping old surface and repairing with putty where ever necessary.	Sqm	2.65
12.36	Satna lime wash on wall one coat (or more coats) including scrapping old surface and repairing with whiting where ever necessary.	Sqm	3.75
12.37	Colour washing of all shades to give an even shade including all scaffolding :		
12.37.1	New work (two or more coats) with a base coat of white washing with lime.	Sqm	12.50
12.37.2	New work (two or more coats) with a base coat of whiting.	Sqm	13.75
12.37.3	Old work (one or more coats) with whiting with a base coat of white washing including scrapping old surface.	Sqm	6.25
12.37.4	Old work (two or more coats) with whiting with a base coat of white washing including scrapping surface.	Sqm	5.30
12.37.5	Old work (one or more coats) with lime including scrapping surface.	Sqm	3.60
12.37.6	Old work (one or more coats) with whiting including scrapping surface.	Sqm	3.60
12.37.7	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches by sandla/loi. (only for colour changing).	Sqm	3.10
12.38	Distemping with dry distemper of approved brand and shade (two or more coats) and of required shade on new work, over and including, priming coat of whiting to give an even shade including all scaffolding.	Sqm	46.00
12.39	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade including all scaffolding:		
12.39.1	New work (two or more coats) over and including scrapping and priming coat with cement primer.	Sqm	65.00
12.39.2	Old work (one or more coats) including scrapping surface and necessary repairs.		
a	Colour Change	Sqm	11.75
b	Same colour	Sqm	9.00
12.39.3	Removing dry or oil bound distemper by scrapping sand papering and preparing surface smooth including necessary repairs to scratches by sandla/loi and all scaffolding (for colour changing only)	Sqm	3.75
12.40	Distemping with 1st quality acrylic washable distemper (ready mixed) of approved manufacturer and of required shade and colour completeincluding all scaffolding as per manufacturer's specification. Two or more coats on new work including preparation of base with primer, putty, lippy etc complete in all respect.	Sqm	38.00
12.41	Applying one coat of Cement primer of approved brand and manufacture on wall surface including all scaffolding:	Sqm	12.50

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
12.42	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade including all scaffolding:		
12.42.1	Two or more coats on new work including preparation of base with primer, putty, lippy etc complete in all respect.	Sqm	63.00
12.42.2	Old work (One or more coats)	Sqm	35.00
EXTERIOR FINISHING			
12.43	Finishing wall with water proofing cement paint of approved brand and manufacture and or required shade to give an even shade including all scaffolding:		
12.43.1	New work (Two or more coats applied @ 3.84 kg/10 sqm).	Sqm	46.00
12.43.2	Old work (One or more coats).	Sqm	18.00
12.44	Finishing walls with Acrylic Smooth exterior paint of required shade including all scaffolding. New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.20 kg/ 10 sqm).	Sqm	75.00
12.45	Painting exterior surface of Wall with 100% acrylic exterior paint of approved brand and manufacture to give an even shade with two or more coats including preparation of base with sand papering, primer, putty, etc complete in all respect.		
12.45.1	New Work	Sqm	107.00
12.45.2	Old Work	Sqm	43.00
12.46	Finishing walls with textured exterior paint of required shade as per approved colour complete as per manufacturers specifications including primer coat and protecting coat	Sqm	
12.46.1	Roller Finish av. thickness 400 to 500 microns.	Sqm	148.00
12.46.2	Trowel Finish av. thickness 1000 to 1200 microns.	Sqm	278.00
12.46.3	Trowel Finish av. thickness 1500 to 2000 microns.	Sqm	333.00
12.46.4	Trowel Finish av. thickness 2000 to 2500 microns.	Sqm	376.00
PAINTING			
12.47	Applying priming coat :		
12.47.1	With ready mix pink or gray primer of approved brand and manufacture on wood work hard and soft wood.	Sqm	25.00
12.47.2	With ready mix Aluminium primer of approved brand and manufacture on resinous wood and plywood.	Sqm	25.00
12.47.3	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/steel works	Sqm	20.00
12.47.4	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	Sqm	10.60
12.48	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :		
12.48.1	Two or more coats on new work	Sqm	55.00
12.48.2	One or more coats on old work.	Sqm	25.00
12.49	Varnishing with varnish of approved brand and manufacture :		
12.49.1	Two or more coats glue sizing with copal varnish over an under coat of flatting varnish.	Sqm	78.00
12.49.2	Two or more coats glue sizing with spar varnish or an under coat of flatting varnish.	Sqm	81.00
12.50	French sprit polishing :		
12.50.1	Two or more coats on new work including a coat of wood filler.	Sqm	145.00
12.50.2	One or more coats on old work.	Sqm	50.00
12.51	Polishing on wood work with ready mixed wax polish of approved brand and manufacture :		
12.51.1	New Work	Sqm	60.00
12.51.2	Old Work.	Sqm	25.00
12.52	Providing and applying Melamine polish on teak wood work of approved brand and manufacture to give an even shade with two or more coats by compressor including sand papering, wood filler coat etc complete in all respect:		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
12.52.1	New Surface	Sqm	768.00
12.52.2	Old Surface	Sqm	525.00
12.53	Painting one thin coat with white lead of approved brand and manufacture on wet or patchy portion of plastered surfaces.	Sqm	32.00
12.54	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
12.54.1	New work (Two or more coats).	Sqm	60.00
12.54.2	Old work (One or more coats) white grey and green shade.	Sqm	16.00
12.55	Painting (two or more coats) on rain water soil, waste and vent pipes and fitting with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :		
12.55.1	75mm dia. Pipes.	Mtr.	15.00
12.55.2	100mm dia. Pipes	Mtr.	23.00
12.55.3	150mm dia. Pipes.	Mtr.	35.00
12.56	Painting (one or more coats) on rain water soil, waste and vent pipes and fitting with black anticorrosive bitumastic paint of approved brand and manufacture on old work :		
12.56.1	50mm dia. Pipes.	Mtr.	3.00
12.56.2	75mm dia. Pipes.	Mtr.	4.65
12.56.3	100mm dia. Pipes	Mtr.	6.00
12.56.4	150mm dia. Pipes.	Mtr.	9.00
12.57	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.		
12.57.1	75mm dia. Pipes.	Mtr.	15.00
12.57.2	100mm dia. Pipes	Mtr.	25.00
12.57.3	150mm dia. Pipes.	Mtr.	35.00
12.58	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on old work.		
12.58.1	50mm dia. Pipes.	Mtr.	3.00
12.58.2	75mm dia. Pipes.	Mtr.	4.60
12.58.3	100mm dia. Pipes	Mtr.	6.00
12.58.4	150mm dia. Pipes.	Mtr.	7.00
12.59	Painting with oil type wood preservative of approved brand and manufacture :		
12.59.1	New work (Two or more coats).	Sqm	18.75
12.59.2	Old work (One or more coats).	Sqm	10.00
12.60	Providing and applying two coats of fire retardant paint unthinned on cleaned wood/ply surface @ 3.5 sum per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.	Sqm	311.00
12.61	Coal-tarring coats on new work using 0.16 and 0.12 litre of coal tar per Sqm in the first and second coat respectively.	Sqm	20.00
12.62	Painting with Aluminium paint of approved brand and manufacture to give an even shade :		
12.62.1	Two or more coats on new work.	Sqm	46.00
12.62.2	One or more coats on old work.	Sqm	15.00
12.63	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :		
12.63.1	Two or more coats on new work .	Sqm	47.00
12.63.2	One or more coat on old work .	Sqm	23.00
12.64	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
12.64.1	Two or more coats on new work.	Sqm	41.00
12.64.2	One or more coat on old work.	Sqm	16.75
12.65	Floor painting with floor enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work.	Sqm	53.00
12.66	Lettering with black Japan paint of approved brand and manufacture.	P. Letter Per cm. height	1.75
12.67	Re-lettering with black Japan paint of approved brand and manufacture.	P. Letter Per cm. height	0.93

CHAPTER : B-13
REPAIRS TO BUILDING

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
13.1	Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5 sq. metres and under including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete including disposal of rubbish to the dumping ground within 50 m lead : With cement mortar 1 :4 (1 cement : 4 coarse sand)	Sqm	170.00
13.2	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts embedding hold fasts in cement concrete blocks with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)painting two coats of coal tar to sides of chowkhats and making good the damages to walls and floors as required complete including disposal of rubbish to the dumping ground within 50 metres lead		
13.2.1	Door chowkhats	Each	533.00
13.2.2	Window chowkhats	Each	332.00
13.2.3	Clerestory window chowkhats	Each	235.00
13.3	Making the opening in masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground. For door/windows/clerestory windows	Sqm	323.00
13.4	Renewing glass panes, with putty and nails wherever necessary:		
13.4.1	Float glass panes of thickness 4 mm	Sqm	535.00
13.4.2	Float glass panes of thickness 5.0 mm	Sqm	661.00
13.5	Renewing glass panes with wooden fillets wherever necessary :		
13.5.1	4mm thick plain glass panes.	Sqm	662.00
13.5.2	5.mm thick plain glass panes.	Sqm	790.00
13.6	Renewing glass panes and refixing existing wooden fillets :		
13.6.1	4mm thick plain glass panes.	Sqm	551.00
13.6.2	5mm thick plain glass panes.	Sqm	676.00
13.7	Supplying and fixing new wooden fillets wherever necessary: 2nd class teak wood fillets	Rm	25.00
13.8	Renewal of old putty of glass panes (length)	Rm	16.00
13.9	Refixing old glass panes with putty and nails	Sqm	185.00
13.10	Fixing old glass panes with wooden fillets (Excluding cost of fillets)	Sqm	153.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
13.11	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab including cutting chase and making good and painting exposed portion of the clamps complete.	Each	186.00
13.12	Repair to stone masonry in cement sand mortar 1:6 with old and new stone.	Sqm	230.00
13.13	Repair to brick masonry in cement sand mortar 1:6 with new brick.	Sqm	256.00
13.14	Cement plaster 1:3 under old stone slabs with admixture (gur,nails,binding wire to mesh and scraping scales & dressing joints of slabs complete.		
13.14.1	Proofing upto 25 mm thickness.	Sqm	221.00
13.14.2	Proofing above 25 mm thickness& upto 60 mm thickness	Sqm	398.00
13.15	Patch repair to cement concrete floor including digging out old floor in regular shape and removal of rubbish curing etc. complete in all respects.	Sqm	237.00
13.16	Washing floor with soda, soap or other cleaning material.	Sqm	1.00
13.17	Removal and refixing stone chhajja 50 to 75 mm thick including finishing, complete in all respects.	Sqm	136.00
13.18	Replacing broken roofing slab in patches including lime terrace, ceiling plaster etc. including removal of broken slabs.	Sqm	1331.00
13.19	Making holes in stone masonry wall upto 450 mm x 450 mm size and making good in CM 1:6.	Each	132.00
13.20	Grinding of existing floor with		
13.20.1	60, 80, 120 and 360 No. Carborundum stone including cost of wax polishing complete :	Sqm	50.00
13.20.2	120 and 360 No. Carborundum stone including cost of wax polishing complete :	Sqm	32.00
13.21	Add extra for mirror polishing on existing marble work/ Kota stone flooring work where ever required to give high gloss finish complete.	Sqm	105.00
13.22	Providing and fixing double scaffolding system on the exterior side, upto five story made with 4" wooden member 1.5 m c/c horizontal and vertical direction joining with rassi, clamps, challies. The scaffolding system shall be stiffened with bracing, runner, connection of building if necessary with all essential safty features for the workmen etc complete as per direction of EI.The lavation area of the scaffolding shall be measured for payment. The paeyment will be made once irrespective of duration of scaffolding. Note : This item to be used for maintence work judically	Sqm.	127.00
13.23	Repair of existing steel glazed doors, windows and ventilator, MS sheet door, garge doors, compound wall gates etc. by welding drilling complete include. Cost of welding rods and hire charge of welding meachine and TP etc complete	Sqm.	288.00
13.24	Labour charges for repair to door / window without using any material such as applying randha (finishing) tightening of bolts & screw etc.	Sqm.	191.00
13.25	L/C for fixing of GI/AC sheet include. Cutting jhiri and repair , cutting of sheet , fixing of sheet with J or L hook and bitumen washer as per direction of EI	Sqm.	222.00
13.26	Repair of rolling shutter with replacement of shutter spring incl. removal of old spring in the existing rolling shutter incld. Cost of new spring	Each	668.00
13.27	Repair of rolling shutter with using any material such as bend repair , tightening of spring,boltand screw etc complete	Each	483.00
13.28	Refebrication work with existing steel work including cutting, welding & refebrication as per requirement with fixing at site complete as per direction of Engineer In charge	Kg	30.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
13.29	Repair to damaged RCC slabs, beams and columns etc for strengtheing with cement mortar 1 : 2 in following steps i) Choping losse and cracked concrete to required depth, cleaning the exposed surface of steel and concrete with wire brush and sand papering , cleaning of concrete surface with water as necessary and getting dried. ii) Applying Epoxy primer on the exposed steel bars. iii) Applying Epoxy hardener and resin mix (as per manufactured's specification) on concrete and steel bars with brush. iv)Spreading dry cement mortar 1 : 2 mix over epoxy treated wet surface and allow it to dry for one day. v) Plastering the surface with cement sand mortar 1 : 3 upto depth of 30mm complete. vi) Cure the plastered surface for 15 days	Sqm	1358.00
13.30	Replacement of stone Chajja with sriwan in damaged portion as per existing thickness and width in CM 1 : 3 with removal of old damaged pieces of chajja including top plaster of chajja and bottom pointing in CM 1 : 3 with scaffolding upto three floor level as per direction of Engineer in charge	Sqm	2442.00
13.31	Repair to damaged cement plaster of stone chajja with CM 1 : 3 of required thickness on top & bottom as per existing pattern and making patta etc complete up to three floor level as per direction of Engineer in charge including all necessary scaffolding etc	Sqm	548.00
13.32	Mechanised cleaning of storage tanks comprises of following 6 stage as mentioned below : 1. Mechanical dewatering 2. Desalting removal of leftover dirty water and sludge with sludge pump 3. Cleaning of wall, ceiling and floor by high pressure water jet with help of equipments which creates a pressure of 100-150 bar 4. Removal of remainig sludge from floor with the help of industrial vacuum cleaner. 5. Spraying of non toxic, bio degradable ecofriendly and bacterial agent certified by a govt approved laborary to disinfect the tank from all harmful pathogens. The dose should be safe as per the UECD guidelines & 23 adopted on 17 th december 2001. 6. Treatment of inside tank by exposing UV radiation to kill further suspended or floating bacteria if any	lt.	0.30
13.33	Repair of door, window shutters including cost of material and labour for change of damaged :		
(a)	Style / rail of teak wood 30mm thick/ Aluminium Section		
(i)	4"wide	Rmt.	231.00
(ii)	6" wide	Rmt.	319.00
(b)	Panel by		
(i)	Shuttering Ply - 9mm thick (Commercial)	Sqm.	519.00
(ii)	Wire Gauge 14 mesh x 24 gauge	Sqm.	462.00
(iii)	Plain Glass Panes 4mm thick	Sqm.	374.00
(c)	Aldrop of mild Steel		
(i)	12" long x12mm dia	Each	128.00
(ii)	8" long x 10mm dia	Each	92.00
(d)	Stopper of Aluminium with		
(i)	Single Rubber Gutka	Each	29.00
(ii)	Double Rubber Gutka	Each	41.00
(e)	Door Springs of mild Steel	Each	139.00
(f)	Steel Hinges		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
(i)	For Wooden Chowkhat 3" size.	Each	21.00
(ii)	For Wooden Chowkhat 4" size	Each	30.00
(iii)	For Stone Chowkhat ,4"size	Each	25.00
(g)	Mild Steel Tower Bolt 6" long	Each	34.00
(h)	Steel Locking Bolt	Each	46.00
(i)	Steel Handle 6" size	Each	21.00

CHAPTER : B-14
DISMANTLING & DEMOLISHING WORK

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
14.1	Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer-in-charge.	Cum	192.00
14.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in-charge.		
14.2.1	1: 3: 6 or richer mix.	Cum	552.00
14.2.2	1: 4: 8 or leaner mix.	Cum	340.00
14.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	Cum	805.00
14.4	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	Cum	720.00
14.5	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge	Sqm	275.00
14.6	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work	Kg	2.10
14.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.		
14.7.1	In mud mortar.	Cum	160.00
14.7.2	In lime mortar.	Cum	192.00
14.7.3	In cement mortar.	Cum	466.00
14.8	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 meters (stacks of cleaned bricks shall be measured):		
14.8.1	From bricks work in mud mortar.	1000 Nos.	1080.00
14.8.2	From brick work in lime mortar	1000 Nos.	1271.00
14.8.3	From brick work in cement mortar.	1000 Nos.	1605.00
14.9	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge:		
14.9.1	In lime mortar.	Cum	262.00
14.9.2	In cement mortar.	Cum	556.00
14.9.3	In mud mortar	Cum	156.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
14.9.4	dry masonry	Cum	133.00
14.10	Dismantling dressed stone work ashlar face stone work, marble work or precast concrete work manually/ by mechanical means including stacking of serviceable and disposal of unserviceable material within 50 metres lead as per direction of Engineer in charge :		
14.10.1	In lime mortar.	Cum	332.00
14.10.2	In cement mortar.	Cum	651.00
14.11	Removing mortar from stones and cleaning stones and concrete articles including stacking (net quantity of stacks of cleaned materials will be measured):		
14.11.1	Lime mortar.	Cum	111.00
14.11.2	Cement mortar.	Cum	160.00
14.12	Dismantling doors, windows and clearstory windows steel or wood shutter including chowkhats and holdfasts etc. complete and stacking within 50 meters lead:		
14.12.1	Of area 3 square meter and below.	Each	91.00
14.12.2	Of area exceeding 3 square meter.	Each	125.00
14.13	Taking out doors, windows and clearstory windows shutters (steel or wood) including stacking within 50 meters lead:		
14.13.1	Of area 3 square meter and below.	Each	37.00
14.13.2	Of area exceeding 3 square meter.	Each	48.00
14.14	Dismantling wood work in frames, trusses, purlins and rafters up to 10 meter span and 5m height including, levelling stacking the material within 50m lead:		
14.14.1	Of sectional area 40 Sq.cm and above	Cum	1185.00
14.14.2	Of sectional area below 40 Sq.cm.	Mtr.	5.00
14.15	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of one metre or part thereof beyond 10 metres :		
14.15.1	of sectional area 40 Sq.cm and above	Cum per Meter span	145.00
14.15.2	of sectional area below 40 Sq.cm.	Mtr. .Per meter span	0.37
14.16	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional height of one metre or part thereof beyond 5 metres :		
14.16.1	of sectional area 40 Sq.cm and above	Cum per Meter span	206.00
14.16.2	of sectional area below 40 Sq.cm.	Mtr. per Meter span	0.75
14.17	Dismantling steel work in single sections including dismembering and stacking within 50 meters lead in:		
14.17.1	R.S. joists.	Kg	0.75
14.17.2	Channels, angles, tees & flats.	Kg	0.50
14.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	Kg	1.25
14.19	Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.	Kg	0.87
14.20	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one metre or part thereof beyond 10 metres	Kg per Mtr.	0.25
14.21	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one metre or part thereof beyond 5 metres.	Kg per Mtr.	0.25
14.22	Extra for making of structural steel work required to be re-erected.	Kg	1.25

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
14.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meter lead:		
14.23.1	For thickness of tiles 10mm to 25mm.	Sqm	18.00
14.23.2	For thickness of tiles 25mm to 40mm.	Sqm	30.00
14.24	Dismantling dry brick pitching in floors drains etc. including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Cum	298.00
14.25	Dismantling stone slab/ terrazo chip flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm	60.00
14.26	Dismantling brick tiles covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm	27.00
14.27	Demolishing mud phuska/ Lime dhar/ Kharanja in terracing and disposal of unserviceable material within 50 meters lead.	Cum	206.00
14.28	Dismantling roofing including ridges, hips, valleys and rafters etc. and stacking the within 50 meter lead of:		
14.28.1	G.I. Sheet.	Sqm	42.00
14.28.2	Asbestos Sheet.	Sqm	20.00
14.29	Dismantling stone slab roofing over wooden karries and battens (dismantling karries and battens to be paid for separately) including stacking of serviceable material and disposal of unserviceable material within 50 meter lead:	Cum	606.00
14.30	Dismantling Jack arch roofing and floors including stacking of serviceable material and disposal of unserviceable material within 50-meter lead.	Sqm	57.00
14.31	Dismantling tiled roofing with battens boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50-meter lead.	Sqm	47.00
14.32	Dismantling thatch roofing including mats bamboos, jafries etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 meter lead	Sqm	13.00
14.33	Dismantling wooden ballies in posts and struts including stacking within 50 meters lead.	Mtr.	5.00
14.34	Dismantling and stacking within 50 meters lead fencing post, struts, including earth work dismantling of concrete etc. in the case of:		
14.34.1	T or Angle Iron posts	Each	62.00
14.34.2	R.C.C. posts.	Each	70.00
14.35	Cutting ballies or wooden posts of fencing at the point of projection above the concrete at ground and stacking the same within 50 meter lead	Each	7.50
14.36	Dismantling barbed wire or chain link fencing including bending making rolls and stacking within 50-meter lead.	Kg	8.75
14.37	Dismantling wooden trellis work excluding frames but including bending, making rolls and stacking within 50 meter lead.	Sqm	15.00
14.38	Dismantling expanded metal or I.R.C. fabric with necessary battens and beading including stacking the serviceable material within 50-meter lead.	Sqm	18.70
14.39	Dismantling wooden boards in lining of walls and partition excluding supporting members but including stacking within 50 meter lead:		
14.39.1	Up to 10mm thick	Sqm	15.00
14.39.2	Thickness above 10mm up to 25mm	Sqm	22.00
14.39.3	Above 25mm thick.	Sqm	67.00
14.40	Dismantling precast concrete or stone slabs in wall partitions etc. including stacking within 50 meter lead:		
14.40.1	Thickness up to 40mm.	Sqm	67.00
14.40.2	Thickness 40mm up to 75mm	Sqm	101.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
14.41	Dismantling cement, asbestos, celotex or other hard board ceiling or partition walls including stacking of serviceable material and disposal of unserviceable material within 50-meter lead.	Rm	15.00
14.42	Dismantling CI or asbestos rain water pipe with fitting and clamps including stacking within 50 meter lead:		
14.42.1	Up to 80mm dia pipe.	Mtr.	17.00
14.42.2	100mm dia pipe.	Mtr.	17.00
14.42.3	150mm dia pipe.	Mtr.	18.00
14.43	Dismantling tar felt over roofing complete including stacking of serviceable material and disposal of unserviceable material within 50-meter lead.	Sqm	20.00
14.44	Dismantling GI pipes (external work) including excavation and refilling trenches after taking out the pipes and including stacking of pipes within 50 meter lead:		
14.44.1	15mm to 40mm nominal bore.	Mtr.	36.00
14.44.2	Above 40mm nominal bore.	Mtr.	41.00
14.45	Dismantling CI pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into block, including stacking of pipes lead at site within 50 meter, of dia:		
14.45.1	Up to 150mm dia.	Mtr.	95.00
14.45.2	Above 150mm dia. up to 300mm dia.	Mtr.	128.00
14.45.3	Above 300mm dia.	Mtr.	171.00
14.46	Dismantling steel cylinder, R.C. pipes etc. including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes, within a lead of 50 meter, of dia:		
14.46.1	Up to 600mm dia.	Mtr.	171.00
14.46.2	Above 600 mm dia.	Mtr.	431.00
14.47	Dismantling asbestos cement pressure pipes including excavation and refilling trenches after taking out the pipes, and stacking the same within a lead of 50 meter, of dia:		
14.47.1	Up to 150mm.	Mtr.	75.00
14.47.2	Above 150mm.	Mtr.	91.00
14.48	Taking out CI cover with frame from stone slab / RCC slab of inspection chambers of various sizes including dismantling of stone slab / RCC slab roofing and stacking of useful materials near the site and disposal of unserviceable materials within 50-meter lead.	Each	162.00
14.49	Taking out C.I. cover with frame from stone slab / RCC slab of manholes of various sizes including dismantling of stone slab / RCC slab roofing and stacking of useful materials near the site and disposal of unserviceable materials within 50-meter lead.	Each	96.00
14.50	Dismantling of RCC spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refilling the excavated gap stacking the useful material near the site and disposal of unserviceable materials within 50 meter lead.	Each	1100.00
14.51	Dismantling of gully chamber of various sizes including CI grating with frame including stacking of useful materials near the site and disposal of unserviceable material within 50 meter lead including refilling the gap.	Each	221.00
14.52	Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unserviceable material within 50 meter lead.	Each	240.00
14.53	Dismantling of CI sluice valve including stacking of useful materials within a lead of 50 meter:		
14.53.1	Up to 150mm dia.	Each	86.00
14.53.2	Above 150mm dia.	Each	306.00
14.54	Dismantling of spindle fire hydrant including stacking of useful material within 50 meter lead.	Each	185.00
14.55	Dismantling of cement concrete platform along with curtain walls and base concrete etc. including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead :		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
14.55.1	120 x 120 cm (outside to outside)	Each	250.00
14.55.2	210 x 120 cm (outside to outside)	Each	383.00
14.55.3	320 x 120 cm (outside to outside)	Each	542.00
14.56	Dismantling old plaster or skirting, raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 meter lead.	Sqm	12.00
14.57	Dismantling CC jali including cost of making grooves in plaster and making good and including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge. .	Sqm	70.00
14.58	Dismantling aluminium/Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	Sqm	15.00
14.59	Demolishing CC/R.C.C. work by mechanical power driven means and stockpiling at designated locations and disposal of dismantled material up to to lead of 50 m, stacking serviceable and unserviceable material seperately including cutting reinforcement bars	Cum	851.00
14.60	Making of hole (width up to 150 mm) in R.C.C. slab/wall/beams by power driven drilling machine complete as per direction of EI		
14.60.1	upto 150mm thick	Each	128.00
14.60.2	above 150 mm thick	Each	195.00
14.61	Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50metres lead as per direction of Engineer-in-charge :		
14.61.1	Water bound macadam road (average thickness 250 mm)	Sqm	51.00
14.61.2	bituminous road (average thickness 300 mm)	Sqm	98.00

CHAPTER : B-15
WATER PROOFING AND EXPANSION JOINT
TREATMENT

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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WATER PROOFING TREATMENT

15.1	Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of : i) 1st layer of 20mm thick approved and specified rough stone slab over a 25mm thick base of cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion. Joints sealed and grouted with cement slurry mixed with water proofing recommended proportion. ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportions. iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cum/sqm thoroughly embedded in the 2nd layer. Using rough kota stone	Sqm.	708.00
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Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
15.2	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 20mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:4 (1 cement:4 coarse sand) 20mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge Using rough Kota stone	Sqm.	832.00
15.3	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of : i) Ist course of applying cement slurry @ 4.4 Kg/sum mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. ii) IInd course of 20mm cement plaster 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.. iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 Kg per sqm. of area. iv) IVth course of 400 micron thick PVC sheet .(Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.)	Sqm.	418.00
15.4	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :		
15.4.1	Serrated with central bulb (225 mm wide, 8-11 mm wide)	Rm	451.00
15.4.2	Dumb bell with central bulb (180 mm wide, 8 mm wide)	Rm	418.00
15.4.3	Kickers (320 mm wide, 5 mm thick)	Rm	429.00
15.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) first layer of slurry of cement @ 0.488 kg/sqm mixed with water proffing cement compound @0.253 kg/sqm .This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proffing cement compound @ 0.126 kg/sqm This layer will be allowed to air cure for 4 hours followed by water curing for 48 hours. The rates includes preparation of surface treatment & sealing of all joints ,corners, junction with polymer mixed slurry.	Sqm.	220.00
15.6	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying : a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proffing cement compound @ 0.253 kg/sqm. b) laying second layer of Fiber glass cloth when the first layer is still green . Overlaps of joints of fiber cloth should not be less than 10 cm . c) Third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proffing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30cm on parapet wall and tucked into groove in parapet all around d) fourth and final layer of brick tiling 'with cement mortar or any other approved protective course. (which will be paid for separately) For the purpose of measurement the entire treated surface will be measured	Sqm.	338.00
15.7	Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of first and third courses of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot 1.45Kg. per square meter of area for each course, second course of roofing felt type 3 grade -I (Hessian based self finished bitumen felt)and fourth and final course of stone grit 6mm and down size of pea sized gravel spread at 6cubes diameter per square meter including preparation of surface, but excluding grading, complete with Bitumen felt (Hessian base) type 3 grade - I conforming to : 1322.	Sqm.	322.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
15.8	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ @ 1.45 ,1.20 and 1.45 Kg per sqm. of area respectively second and fourth courses of roofing felt type 3 grade-I conforming to IS 1322 (Hessian based self finished bitumen felt) conforming to IS 1322 and sixth and final course of stone grit 6mm and down size of pea sized gravel spread at 6 cubic dm. per square metre including preparation of surface but excluding grading complete .	Sqm.	498.00
15.9	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or/and residual bitumen applied hot at 1.45, 1.20 and 1.70 Kg. per Sqm. of area respectively second and fourth courses of roofing felt type 2 grade-I (fiber base self finished bitumen felt) and sixth and final course of stone grit 6mm and down size or pea sized gravel spread at 8cu.dm per sqm including preparation of surface excluding grading complete confirming to IS : 1322 and 1346.	Sqm.	541.00
15.10	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or/and residual bitumen applied hot at 1.45, 1.20 and 1.70Kg. per Sqm of area respectively second and fourth courses of roofing felt type 2 grade 2 (fiber base self finished bitumen felt) and sixth and final course of stone grit 6mm and down size of pea sized gravel spread at 8cu.dm per sqm including preparation of surface excluding grading complete confirming to IS : 1322 and 1346.	Sqm.	541.00
15.11	Supplying and applying bituminous solution primer on roofs or on wall surface at 0.24 liter per sqm.	Sqm.	21.00
15.12	Deduct for omitting in water proofing treatment final course of spreading stone grit 6mm. and down size of pea sized gravel :		
15.12.1	At 6dm ³ per Sqm.	Sqm.	8.80
15.13	At 8dm ³ per Sqm.	Sqm.	11.00
15.14	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 Itr/sq.mt. by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ltr and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D-5147. The laying of membrane shall be got done through the authorized applicator of the manufacturer of membrane. 3 mm thick	Sqm.	443.00
15.15	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membran @ 0.40 Itr/sq.mt. by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ltr and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D-5147. The laying of membrane shall be got done through the authorized applicator of the manufacturer of membrane. 3 mm thick	Sqm.	512.00
15.16	Extra for covering top of membrane with Geotextile, 120gsm non woven, 100% polyester of thickness 1 to 1.25mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	Sqm.	51.00
15.17	Extra over items of Cement Plaster / Cement Concrete flooring / Plain or RCC work P Pack 125 Providing and mixing admixture of synthetic Fiber 6mm / 12mm. @ rate of 125gm. pack per 50 Kg. of Cement or in the ratio of as specified by manufacture specification and direction of Engineer In-chargees with all leads and lifts.	gm	52.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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EXPANSION JOINT TREATMENT:

15.18	Supplying and providing of two components poly sulphide sealant containing solid contents, confirming to standard specification and approved compatible primer, for priming vertical faces prior to application of poly sulphide sealant including all labour charges for sealing of expansion joints after drill mixing of two components sealing compound. Cleaning and preparation of expansion joint using wire brush sand papering with emery paper and filing with suitable mechanical means. The work includes racking and cleaning of joints, sticking, debonding tape on bottom of joint, applying primer on edges, using masking tape on edges, providing of sealant and removal of masking tape immediately after providing sealant in joint.		
15.18.1	To vertical joint between RCC columns, bricks & stone masonry in size 40 mm width and 12 mm depth, including providing back up material (Thermocoal foam) if required.	Mtr.	753.00
15.18.2	To joints in flooring, as per drawing with first layer of poly sulphide sealant in size 20 mm width and 10 mm depth over PE Foam and then providing polyethylene foam back up rod 25 mm dia size and finally providing another layer of poly sulphide sealant in size 20 mm width and 10 mm depth over P.E. back up rod as per application procedure and direction of Engineer-in-charge.	Mtr.	786.00
15.19	Providing and fixing in position bitumen impregnated fiberboard confirming to IS: 1838 in expansion joints including the cost of primer sealing compound.		
15.19.1	12 mm. thick	Sqm.	550.00
15.19.2	18 mm. thick	Sqm.	720.00
15.19.3	25 mm. thick	Sqm.	940.00
15.20	Providing and fixing expansion joint board for building RCC column beams, walls, slab of Polyethylene foam of density 30 to 35 Kg/m ³ of Armour Board.		
15.20.1	20mm Thick	Sqm.	378.00
15.20.2	25 mm Thick	Sqm.	448.00
15.20.3	30 mm Thick	Sqm.	512.00
15.20.4	40 mm Thick	Sqm.	652.00
15.21	Providing and fixing 150 mm wide sheet covering over expansion joints with iron screws as per design to match the colour / shade of wall treatment.		
15.21.1	Non-asbestos fibre cement board 6 mm thick as per IS:14862. 1	Rm.	97.00
15.21.2	Aluminum fluted strips 2 mm thick	Rm.	372.00
15.21.3	Acrylic sheet 5 mm thick	Rm.	93.00
15.22	Providing and filling in position bitumen sealing compound grade A (IS 1834) in expansion joints.	P.Cm. depth P. Cm. Width for 100mtr. length	709.00
15.23	Providing and filling in position bitumen mix filler of proportion 80 Kg. of hot bitumen, 1 Kg. of cement and 0.25 cubic meter of coarse sand for expansion joints.	Per cm width per cm depth per 100 mtr. length	208.00

R.C.C. FRAMES

15.24	Providing and fixing in cement sand mortar 1 : 3 single/double rebated R.C. Door Window and ventilator frames (Chowkhats) including 1% reinforcement as per design and concrete mix 1 : 2 : 4 cutting etc. complete incl. horns. and hold fasts :		
15.24.1	Size 75 x 50mm	Mtr.	107.00
15.24.2	Size 75 x 75mm	Mtr.	122.00
15.24.3	Size 100 x 75mm	Mtr.	128.00
15.24.4	Size 125 x 75mm	Mtr.	137.00
15.25	Extra for RC frames (Chowkhats) Curved in plan	Mtr.	10%
15.26	Extra for RCC frame finishing the exposed face with terrazo (Mosaic) finish.	Mtr.	20%

CUT STONE DOOR AND WINDOW FRAMES

15.27	Providing and fixing in cement sand mortar 1 : 4 single paitam (rebated) stone doors windows and ventilator frames of approved quarry :		
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Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
15.27.1	Size 75 x 60mm	Mtr.	113.00
15.27.2	Size 75 x 75mm	Mtr.	128.00
15.27.3	Size 100 x 60mm	Mtr.	145.00
15.27.4	Size 100x 75mm	Mtr.	152.00
15.27.5	Size 125 x 100mm	Mtr.	160.00
15.28	Providing and fixing in CM 1 : 4 double paitam (rebated) stone door window and ventilator frames of approved quarry :		
15.28.1	Size 100 x 75mm.	Mtr.	167.00
15.28.3	Size 125 x 100mm	Mtr.	175.00
15.29	Providing & mixing admixture in Cement Concrete flooring/Cement Plaster/Plain or RCC work, Synthetic Polyester Triangular Construction Fiber of length 6mm/12mm/18mm with specific gravity 1.34 to 1.40 and diameter 10-40 microns and melting point>220 degrees centigrade by using 125 gm fiber for 50 kgs cement used as per direction of Engineer-in-charge.	Kg	444.00
15.30	Providing & mixing admixture in Cement Mass Concrete flooring CC Road, RCC work, Canal Lining and Shotcrete Non Circular with ribbed surface Structural Synthetic Macro Fiber 42-50mm length, specific gravity of > 1.30 and diameter 0.8 - 1.20mm and melting poing > 220 degree centigrade @ 0.75% -100% by cement weight in mix as per direction of Engineer-in-charge.	Kg	581.00

CHAPTER : B-16
ALUMINIUM & P.V.C. WORK

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
16.1	Providing and fixing aluminum work for doors ,windows, ventilators and partition with extruded built up standard tubular / appropriate Z sections and other sections of approved make conforming to IS :733 and IS :1285, fixed with rawl plugs and screws or with fixing clips ,or with expansion hold fasteners including necessary filling up of gap, at junctions , at top ,bottom and sides with required PVC/neoprene felt etc. Aluminium section shall be smooth ,rust free, straight ,mitered and jointed mechanically wherever required including cleat angle Aluminium snap beading for glazing /paneling , C.P. brass/ stainless steel screws Al. Tower bolt & Al. handle & Al. Aldrop etc.,all complete as per architectural drawings and the directions of Engineer- in – charge .(Glazing and paneling to be paid for separately).		
16.1.1	For fixed portion		
16.1.1.1	Anodised aluminum (anodised transparent 81 dyed to required shade according to IS : 1868. (Minimum anodic coating of grade AC 15, Anodizing to be got done from approved Anodizer)	Kg.	296.00
16.1.1.2	Powder coating aluminum (minimum thickness of powder coating 50 micron)	Kg.	319.00
16.1.1.3	Polyester Powder coating aluminum (minimum thickness of powder coating 50 micron)	Kg.	331.00
16.1.2	For shutters builtup standard tubular sections of openable doors ,windows & ventilators including providing & fixing hinges / rollers etc. and making provision for fixing of fittings wherever required (lockes shall be paid for separately).		
16.1.2.1	Anodised aluminum (anodised transparent 81 dyed to required shade according to IS : 1868. (Minimum anodic coating of grade AC 15, Anodizing to be got done from approved Anodizer)	Kg.	323.00
16.1.2.2	Powder coating aluminum (minimum thickness of powder coating 50 micron)	Kg.	346.00
16.1.2.3	Polyester Powder coating aluminum (minimum thickness of powder coating 50 micron)	Kg.	358.00
16.2	Extra for shutters of sliding aluminum windows		10.00%
16.3	Extra for work done in curved / circular shape.		10.00%

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
16.4	Providing and fixing 12 mm thick prelaminated three layer medium density (exterior grade) particle board Grade I, Type II conforming to IS : 12823 bonded formaldehyde synthetic resin ,of approved brand and manufacture in paneling fixed in aluminium doors ,windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and direction of engineer-in-charge.		
16.4.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.	Sqm	936.00
16.4.2	Prelaminated particle board with decorative lamination on both sides.	Sqm	993.00
16.5	Providing and fixing glazing in aluminium door, window ,ventilator shutters and partitions etc. with PVS / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge.(Cost of aluminium snap beading shall be paid in basic item.)		
16.5.1	With glass panes of 4.0 mm thickness (weight not less than 10.0 kg/sqm) as per IS : 2835.	Sqm	719.00
16.5.2	With float glass panes of 5.0 mm thickness (weight not less than 13.50 kg/sqm)	Sqm	820.00
16.5.3	With float glass panes of 8 mm thickness	Sqm	1123.00
16.6	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S.		
16.6.1	With stainless steel cover plate	Each	1296.00
16.6.2	With brass cover plate	Each	1796.00
16.7	Filling the gap upto 5 mm depth and 5 mm width in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.	Rm	71.00
16.8	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	Each	298.00
16.9	Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. Complete as per direction of Engineer-in-charge		
16.9.1	Anodized (AC 15) aluminium	Each	61.00
16.9.2	Powder coated minimum thickness 50 micron aluminium	Each	66.00
16.9.3	Polyester powder coated minimum thickness 50 micron aluminium .	Each	68.00
16.10	Providing and fixing expanded grill made of aluminum as per design and drawing having members section of size 7.5mm x 6.0mm and opening of size 102mm x 99mm to aluminum window/vent with required screws, Y and H aluminium sec (as per drawing) at the ends and middle joints respectively complete in all respect as per direction of engineer in charge.		
16.10.1	Anodised aluminum (anodised transparent 81 dyed to required shade according to IS : 1868. (Minimum anodic coating of grade AC 15, Anodizing to be got done from approved Anodizer)	Sqm.	1733.00
16.10.2	Powder coating aluminum (minimum thickness of powder coating 50 micron)	Sqm.	1794.00
16.10.3	Polyester Powder coating aluminum (minimum thickness of powder coating 50 micron)	Sqm.	1916.00
16.11	S&f fixed wire gauge of stainless steel of 14 mesh x 24 gauge to the aluminium window by Aluminium beading 20x3mm with suitable screws at not exceeding 150mm distance at all heights with all lead and lift with scaffolding.	Sqm	724.00
16.12	Providing and fixing vertical Blinds , headrail shall be oriented aluminum alloy 50 mm vide x 18 mm high the thickness shall be 1.2 mm. Control unit shall be made of high grade polymer and shall be housed in side the headrail, which shall transfer motion from chain tilter to tilt rod. Chain tilter shall be made of plastic bead of diameter 4.5 mm through which 2 mm thick polyester code passes. Tilt rod shall be extruded aluminum having 3 key ways. Runner shall be moulded plastic and shall have to plastic wheels mounted on plastic exles to enable runner to slide unhindered in headrail. Luver shall be made of fabric 100 mm colour fast and shall have protective scotchgard coating to resist stains and dust. Bottom mechanism consist bottom weight made of powder coated galvanized steel for maximum corrosion resistance. The bottom weight shall be attached with bottom.	Sqm	1475.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
16.13	Providing and fixing Horizontal blinds /Venation blind shall be cold rolled formed U shape 23 mm high x 25 mm wide with flanged adages. It shall be made of heavy gauge 0.56 mm galvanized steel, Slates shall be made of virgin Al. alloy (having 3.5 – 4.5% of Mg. Content of width 25 mm. The slat shall have dust guard paint coating, the cord lock shall be of thick tomized steel and shall be securely attach in the head rail. It shall provide locking arrangement of the cord. Tilt rod shall be made of galvanized steel it shall have a D shaped with an average cross section with diameter of 6 mm to achieve minimum torsional deflection.	Sqm	1475.00
16.14	Providing and fixing Drapery rod shall be made of 20 gauge cold rolled steel strip. Which is electrical resistance welded, The section will be available 25.4 mm diameter the section shall be coated with acid resistance polymer finial shall made from ABS material in nearest matching colour of rod. The ring shall be made from ABS material in nearest matching colour to rod. Brackets of made of galvanized steel.	Rm	431.00
16.15	Providing and fixing sun control film, thickness of film 1 Mil Visible Light Transmittance 4-24% & Solar Energy Transmittance 42-51% & Total solar Energy rejection 37-43% of approved colour and shade , complete in all respect , at all level , as directed by engineer- in -charge.	Sqm	581.00
PVC ITEMS			
16.16	Providing and fixing factory made of uPVC Extruded section having an overall dimension as below (tolerance+/-1mm) with wall thickness 2.0mm+/-0.2mm, corners of the door frame to be mitred and welded of plastic ,galvanized brackets and stain less steel screws.The hinge side vertical of the frames reinforced by galvanized M.S.tube of size 19x19mm and 1mm+/- 0.1mm wall thickness and 3 nos.stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge.		
16.16.1	Extruded section profile size 48x40 mm	Rm	178.00
16.16.2	Extruded section profile size 42x50 mm	Rm	198.00
16.17	Providing and fixing to existing door frames 24mm thick factory made PVC door shutters made of stiles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2mm +/- 0.2 mm with inbuilt edging on both sides.The stiles and rails mitred and joined at the corners by means of M.S.galvanized/plastic brackets of size 75x220mm having wall thickness 1.0mm+/- 0.1mm and stainless steel screws. The stiles of the shutter reinforced by inserting galvanized M.S.tube of size 20x20mm and 1mm +/-0.1mm wall thickness. The lock rail made up of 'H' section,a uPVC hollow section of size 100x24mm and 2mm +/- 0.2mm wall thickness fixed to the shutter stiles by means of plastic/ galvanized M.S.'U' cleats.The shutter frame fitted with a uPVC multi-shambered single panel of size not less than 610mm, having overall thickness of 20mm and 1mm +/- 0.1mm wall thickness. The panels fitted vertically and tie bar at two places by inserting horizontally 6mm galvanized M.S.rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge (For W.C.and bathroom door shutter).	Sqm	1601.00
16.18	Providing and fixing to existing door frames 30mm thick factory made polyvinyl chloride (PVC) door shutter made of stiles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2mm +/- 0.2mm with inbuilt decorative moulding edging on one side. The stiles and rails mitred and joined and the corners by means of M.S.galvanized/plastic brackets of size 75x220 mm having wall thickness 1.0mm and stainless steel screws. The stiles of the shutter reinforced by inserting galvanized M.S.tube of size 25x20 mm and 1mm +/- 0.1mm wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2mm +/- 0.2mm wall thickness fixed to the shutter stiles by means of plastic/galvanized M.S.tube 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 610mm, having overall thickness of 20mm and 1mm+/- 0.1mm wall thickness.The panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanized M.S.rod and fastened wit manufacturer's specification and direction of Engineer-in-charge (For W.C.and bathroom door shutter). rod level line spaced at 1200mm	Sqm	1663.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
16.19	Providing and fixing factory made P.V.C. door frame of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150mm long brackets of 15x15mm M.S. square tube, the vertical door profiles to be reinforced with 19x19mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100mm size complete as per manufacturers specification and direction of Engineer-in-Charge.	Rm	252.00
16.20	Providing and fixing to existing door frames.		
16.20.1	30mm thick factory made solid panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles and 15 mm x15mm , top & bottom rails. M.S .frame shall have a coat of steel primers of approved make and manufacture M.S. frame covered with 5mm thick heat moulded PVC 'C channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45 degree angle on either side forming stiles; and 5mm thick, 95mm wide PVC sheet out of which 75 mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75 mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top bottom and lock rails shall be provided either side of the panel. 10mm (5mm x 2) thick, 20mm wide cross PVC sheet shall be provided as gap insert for top rail & bottom rail. Panelling of 5mm thick PVC sheet to be fitted in the M.S. frame welded/ sealed to the stiles & rails with 7mm (5mm +2mm) thick x 15mm wide PVC sheet bending on inner side, and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 70mm width is to be stuck on the interior	Sqm	2919.00
16.20.2	30mm thick factory made solid both side Pre laminated panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles and 15x15mm top & bottom rails. M.S .frame shall have a coat of steel primers of approved make and manufacture M.S. frame covered with 5mm thick heat moulded PVC 'C channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45 degree angle on either side forming stiles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75 mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top bottom and lock rails shall be provided either side of the panel. 10mm (5mm x 2) thick, 20mm wide cross PVC sheet shall be provided as gap insert for top rail & bottom rail. Panelling of 5mm thick PVC sheet to be fitted in the M.S. frame welded/ sealed to the stiles & rails with 7mm (5mm +2mm) thick x 15mm wide PVC sheet bending on inner side, and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 70mm width is to be stuck on the interior	Sqm	3043.00
16.21	Providing and fixing of false ceiling with grid of M.S.tube section of size 19mm X 19mm and with a wall thickness of 1mm+/- 0.2mm.The side pipe and the intermediate pipes is fixed to the roof from the top with the help of ceiling angles/wire grid shall be covered by the uPVC profile section of size 6mm X 250mm with wall thickness of 0.80mm +/- 0.2mm,with the help of self tapping screw of 6mm X 13mm, 6mm X 19mm.Necessary cutouts for electric connections, lighting, air conditioning etc, shall be provided at required place. The perimeter edge shall be covered by extruded PVC corner beading section of size 9mm X 28mm or 25mm X30mm with a wall thickness of 1mm+/-0.2mm fixed by applying cynoacrylic adhesive complete as per manufacturer's specification and direction of Engineer-in-charge.	Sqm	905.00
16.22	Providing and fixing of wall paneling on grid made out of PVC profile section of size 21x17mm with a wall thickness of 1.5mm+/-0.2mm, fixed on the existing wall with wood screw of size 50mm X 8mm with rowel plug at a spacing of 900mm center.uPVC profile section of size 150mm X 10mm with a wall thickness of 1.0mm+/-0.2mm to be fixed on the grid by self tapping screw of size 19mm X 6mm.Necessary cutouts for electrical connection to be provided at required places. The edge and periphery, finally to be covered by extruded PVC beading section of size 28mm X 12mm with a wall thickness of 1.0mm+/-0.2mm complete as per manufacture's specification and direction of Engineer-in-charge.	Sqm	1267.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
16.23	<p>Providing and fixing of uPVC casement fully open-able windows (outward / inward) manufactured in ISO 9001:2000 & 14001:2004 certified company. Frame : Made from the Extruded uPVC Window Profile Section of size 60 x 60mm having outer wall thickness of 2.25mm (+/- 0.2mm) and 3 box multi-chamber construction, White in finish, duly reinforced with 1.2mm thick G/J/U/O TYPE GI section. All the four corners shall be mitered cut & thermal welded so as to form window frame. Frame shall be milled with drain and air equalizer hole in order to be water tight and for drainage of accumulated water, if any, to outer side. Fix Mullion made of 76 x 60mm uPVC Profile Section with steel reinforcement shall be provided in windows having 2 or more openable shutters, as per the requirement. Frame shall have 'O' type EPDM gasket fitted in in-built groove of frame profile for proper air & sound insulation of the shutter.</p> <p>Shutter : The shutter of outward openable window shall be made of size 78 x 60mm and shutter of inward openable window shall be made of size 73 x 60mm Extruded 3 box multi-chamber uPVC Window Profile Section of white colour having outer wall thickness of 2.25mm (+/- 0.2mm) provided with reinforcement of 1.2mm thick G/J/U/O TYPE GI section duly mitered cut & thermal welded at all corners and fitted with uPVC glazing bead of size</p>	Sqm	7826.00
16.24	<p>Providing and fixing of uPVC casement fully open-able windows (outward / inward) manufactured in ISO 9001:2000 & 14001:2004 certified company. Frame : Made from the Extruded uPVC Window Profile Section of size 60 x 60mm having outer wall thickness of 2.25mm (+/- 0.2mm) and 3 box multi-chamber construction, White in finish, duly reinforced with 1.2mm thick G/J/U/O TYPE GI section. All the four corners shall be mitered cut & thermal welded so as to form window frame. Frame shall be milled with drain and air equalizer hole in order to be water tight and for drainage of accumulated water, if any, to outer side. Fix Mullion made of 76 x 60mm uPVC Profile Section with steel reinforcement shall be provided for the fix portion of the window and for the window area having 2 or more openable shutters / fix part, as per the requirement. Frame shall have 'O' type EPDM gasket fitted in in-built groove of frame profile for proper air & sound insulation of the shutter. Shutter : The shutter of outward openable window shall be made of size 78 x 60mm and shutter of inward openable window shall be made of size 73 x 60mm Extruded 3 box multi-chamber uPVC Window Profile Section of white colour having outer wall thickness of 2.25mm (+/- 0.2mm) provided with reinforcement of 1.2mm thick G/J/U/O TYPE GI section duly mitered cut & thermal welded at all corners. Shutter as well as fix part of the window</p>	Sqm	6752.00
16.25	<p>Providing and fixing of uPVC Sliding windows manufactured in ISO 9001:2000 & 14001:2004 certified company. Frame : Made from the Extruded uPVC Window Profile Section of size 80 x 52mm having outer wall thickness of 2.25mm (+/- 0.2mm) and 3 box multi-chamber construction, White in finish, duly reinforced with 1.2mm thick G/J/U/O TYPE GI section. Frame shall have three track configuration, two for sliding of window shutter and one for mosquito mesh shutter. Vertical member of frame which bears the sliding shutter load shall have aluminium rail/track for smooth sliding of shutter rollers. All the four corners shall be mitered cut & thermal welded so as to form window frame. Frame shall be milled with drain and air equalizer hole in order to be water tight and for drainage of accumulated water, if any, to outer side.</p> <p>Shutter : The shutter of sliding window shall be made of 54 x 38mm Extruded 3 box multi-chamber uPVC Window Profile Section of white colour having outer wall thickness of 2.25mm (+/- 0.2mm) provided with reinforcement of 1.2mm thick G/J/U/O TYPE GI section duly mitered cut & thermal welded at all corners and fitted with uPVC glazing bead of size 20.5 x 16mm with 'K' & 'O' type inner and outer EPDM weather seal gaskets alongwith 5mm thick ISI make plain float glass. Mesh shutter (optional) shall be made of 52 x 21.5mm</p>		
16.25.1	Without mesh shutter	Sqm	6976.00
16.25.2	With mesh shutter	Sqm	6329.00
16.26	<p>Providing and fixing of openable uPVC Doors with or without fix top manufactured in ISO 9001:2000 & 14001:2004 certified company. Frame : Made of Extruded uPVC Window Profile Section of size 70 x 60mm having outer wall thickness of 2.75mm (+/- 0.2mm) and 3 box multi-chamber construction, White in finish, duly reinforced with 1.2mm thick G/J/U/O TYPE GI section. All the corners shall be mitered cut & thermal welded so as to form door frame. Fix Mullion made of 76 x 60mm uPVC Profile Section with steel reinforcement shall be provided for the top fix portion of the doors or in case of the doors having more than two openable shutters, as per the requirement / drawing. Frame of openable door shall have 'O' type EPDM gasket fitted in in-built groove of frame profile for proper air & sound insulation of the shutter. Shutter : The shutters of openable door shall be made of 106 x 60mm Extruded 3 box multi-chamber uPVC Window Profile Section of white colour having outer wall thickness of 2.5mm (+/- 0.2mm) provided with reinforcement of 1.2mm thick G/J/U/O TYPE GI section duly mitered cut & thermal welded at all corners, provided with center mullion (if specified in drawing) of size 76 x 60mm uPVC Profile Section and fitted with uPVC glazing bead of size 34 x 20mm with 'K' & 'O' type inner and outer EPDM weather seal gaskets alongwith 5mm thick ISI make plain float glass. All welding joints of frame and shutter shall</p>	Sqm	7620.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
16.27	<p>Supply of “ Computer Table” of Modular nature having all the necessary arrangement for keyboard, CPU, UPS, Printer and wire manager Table Top : The table top of size 900 x 600mm(WxD) would be made out of post formed on 25 mm thick particle board with 0.7mm thick Carvica sheet in half round post formed finish on the front and rear side, matching color compensating laminate fixed on the bottom side. Other two sides are edge banded and duly sealed with 1.5 mm thick PVC edge banding of matching color with high pressure through feed machine.</p> <p>Keyboard Below the table top the keyboard pull out tray having sliding arrangement fixed on side supporting legs with 450mm G.I. telescopic channel. Keyboard of size 750 x 450 made out of 18 mm thick Particle board laminate with 0.7mm thick laminate sheet having all four sides Flat edge banded and duly sealed with 1.5 mm thick PVC edge banding of matching color with high pressure through feed machine. Side Support :Two supporting side leg of size 600 x 750mm(WxH) made out of post formed on 18 mm thick particle board with 0.7mm thick Carvica sheet in half round post formed finish on two sides and other two sides are edge banded and sealed with 1.5mm thick PVC edge banding of matching color with high pressure through feed machine.Modesty Panel :</p> <p>Made out of 18 mm thick Particle board laminate with 0.7mm thick laminate sheet of size 900 x 750mm(WxH) having all four sides Flat edge banded and duly sealed with 1.5 mm thick PVC edge banding of matching color with high pressure through feed machine.</p> <p>CPU, UPS & Printer</p>	Each	7392.00

CHAPTER : S-1 SANITARY INSTALLATION WORK

NOTE: All items which are manufactured ISI marked, shall only be used. this condition shall be always incorporated in special condition of contract.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
WATER CLOSETS			
1.1	P. & F Squatting Pan (Indian type) white glazed vitreous china 1st quality W.C. Pan (IS : 2556 Mark) with 100 mm vitreous china P or S trap including cutting and making good the wall and floor (excluding the pair of foot rest.)		
1.1.1	Size 450mm.	Each	891.00
1.1.2	Size 510 mm	Each	972.00
1.1.3	Size 580mm	Each	1012.00
1.2	P & F <i>Indian type</i> white glazed vitreous china 1 st quality W.C. orissa pan (IS :2556 Mark) with 100 mm vitreous china P or S trap including cutting and making good the wall and floor:		
1.2.1	Size 530x410mm.	Each	1945.00
1.2.2	Size 580x440mm.	Each	2067.00
1.3	P & F WVC <i>Foot- rest</i> (IS : 2556 Mark) including cutting and making good the floor size: 250x125x25mm.	Pair	169.00
1.4	P & F European type white glazed vitreous china 1 st quality W.C pan (IS : 2556 Mark) with P or S trap including cutting and making good the wall and floor	Each	1601.00
1.5	P & F European type white glazed vitreous china 1st quality Double syphonic W.C (IS :2556 Mark) with P or S trap including cutting and making good the wall and floor	Each	4109.00
1.6	P & F Universal (anglo-Indian type) white glazed vitreous china W.C. pan 1 st quality (IS 2556 Marked) with P or Strap including cutting and making good the wall and floor	Each	3216.00
1.7	P & F <i>European type</i> white glazed vitreous china 1 st quality W.C. (IS : 2556 Mark) including cutting and making good the wall and floor		
1.7.1	Wall Mounting	Each	2733.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.7.2	Wall Mounting (extended)	Each	3066.00
1.7.3	Wall Mounting (syphonic)	Each	3510.00
Note :-			
(A)	Add extra over item No. 1.1 to 1.7, 1.14, 1.15, 1.19 1.22 ,1.23 ,1.38 & 1.42 for using approved light coloured vitreous china ware i.e. ivory champagne , perl , soft green , soft blue ,pink ,light grey etc. instead of white vitreous chinawares.	Each	50%
(B)	Add extra over item No.1.1 to 1.7, 1.14, 1.15, 1.19 1.22 ,1.23 ,1.38 & 1.42 for using approved dark colored vitreous china ware i.e. Cherry Red , Dark blue, Jet black, Magenta, Burgandy instead of white vitreous chinawares.	Each	65%
1.8	P & F water closet Seat Covers with brass hinges complete :		
1.8.1	Solid PVC (IS 2548 marked) grade-I Black for EWC.	Each	304.00
1.8.2	-do- White.	Each	353.00
1.8.3	-do- Coloured.	Each	378.00
1.8.4	Non-breakable of other approved make Black.	Each	231.00
1.8.5	-do- White.	Each	256.00
1.8.6	-do- Coloured.	Each	292.00
1.9	P & F C.P. lugs for toilet seat cover.	Pair	72.00
1.10	Labour charges for removing W.C. pan (any type) of all sizes with care including all necessary fittings P or S trap.	Each	217.00
1.11	P & F White glazed Conversion Bend for W.C. from P trap to S trap. .	Each	133.00
1.12	P & F vitreous china P trap of approved quality	Each	195.00
1.13	Add extra if C.I.P trap is used in place of Vitreous china P trap for W.C.	Each	361.00
1.14	P & F White Vitreous China <i>Double Syphonic European</i> W.C. (IS:2556Mark) with mounted W.V.C. flushing cistern of (IS : 2556 Mark) of 10 litre capacity complete with all necessary internal fittings including cutting and making good the wall and floor.	Each	8810.00
URINALS:			
1.15	P & F 1st quality WVC Urinal (IS:2556 mark) with 25mm dia G.I. waste pipe, dome waste couplings, concealed iron brackets or screws etc complete.		
1.15.1	Flat Back (small) size 456x355x265mm.	Each	1332.00
1.15.2	Flat Back (large) or half stall size 610x400x80mm.	Each	3372.00
1.15.3	Mini stall size 455x385x350mm.	Each	1663.00
1.16	P & F W.V.C. <i>Urinal Partition Plate</i> of approved standard make of size 630x315mm including making good the wall.	Each	904.00
1.17	P&F Marble <i>Urinal Partition slab</i> both sides polished of approved design cut from marble size 900x600mm.		
1.17.1	Makrana II quality marble having light spots	Each	839.00
1.17.2	Makrana `Albeta` Marble having light streaks.	Each	784.00
1.17.3	Makrana `Adanga` or Raj Nagar 1 st Quality White or Andhi Indo-Italian marble.	Each	728.00
1.18	P & F W.V.C. <i>Half-Round Channel</i> of approved make in C.M. 1:3, joints finished in white cement of:		
1.18.1	Size 100mm dia.	Mtr.	451.00
1.18.2	Size 150mm dia.	Mtr.	573.00
1.19	P & F W.V.C. (IS: 2556 Mark) <i>Squatting Urinal</i> of standard make complete. Including cutting & making good the floor:		
1.19.1	Size 450x350mm	Each	775.00
1.20	Labour charges for removing and refixing of urinals (all type & sizes) including all necessary fittings.	Each	308.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.21	P & F <i>High Level Flushing Cistern</i> of 10 litres capacity of approved make including C.I. brackets duly painted, chain & pull and 32 mm dia G.I. concealed flush pipe with M.S. clamps, 20 mm dia G.I. overflow pipe upto 185 cm. Long, brass ball cock (IS :1703 Mark) with PVC ball and internal fittings and mosquito proof coupling, complete including cutting and making good the wall.		
	White PVC (IS: 7231 Mark).	Each	1457.00
1.22	P & F <i>Low level Flushing Cistern</i> of 10 litres capacity (IS : 2556mark). Of approved make with complete fittings C.I. brackets duly painted, brass ball cock with ball, (IS: 1703 mark) complete including cutting and making good the wall:		
1.22.1	WVC with C.P. brass bend.	Each	1910.00
1.22.2	PVC with PVC bend as per IS : 7231 .	Each	978.00
1.22.3	PVC with PVC bend of make Commander champion	Each	1246.00
1.22.4	WVC for symphonic EWC.	Each	1969.00
1.22.5	PVC with CP brass long band.	Each	1129.00
1.23	P & F <i>Automatic Flushing Cistern</i> of first quality (IS : 774 mark) of approved make fitting, siphon with copper tube, C.I. brackets complete including cutting and making good the wall.		
	WVC (as per IS : 2556) 10 litres.	Each	988.00
Note :-	Deduct if plastic syphon is used.	Each	90.00
1.24	P & F <i>Flush Pipe</i> of approved make with complete fittings for high level flushing cistern:		
1.24.1	G.I. `B` class (Concealed) 25mm.	Each	399.00
1.24.2	G.I. `B` class (Concealed) 32 mm.	Each	466.00
1.24.3	PVC exposed (heavy) 32mm.	Each	153.00
1.24.4	GI (Sheet) hot galvanized exposed (10 litres).	Each	231.00
1.25	P & F WVC (10 litres) low-level flushing cistern with cover.	Each	753.00
1.26	P & F WVC (10 litres) low-level flushing cistern cover only	Each	278.00
1.27	P & F WVC syphon with plunger plate only.	Each	222.00
1.28	P & F WVC Auto cistern with cover only.	Each	420.00
1.29	P & F WVC Auto cistern cover only.	Each	132.00
1.30	P & F C.P. brass <i>Urinal Flush Pipe</i> set complete with flanged brackets of approved make.		
1.30.1	For 4 Urinals	Each	1210.00
1.30.2	For 3 Urinals	Each	971.00
1.30.3	For 2 Urinals	Each	669.00
1.30.4	For 1 Urinal	Each	458.00
1.31.1	P & F C.P. brass <i>Urinal Spreader</i> for stall urinal of approved make.	Each	275.00
1.31.2	P & F Synthetic (PTMT) Urinal Spreader for stall urinal of approved make.	Each	160.00
1.32.1	P & F C.P. brass <i>Doom Waste Coupling</i> 32 mm dia.	Each	138.00
1.32.2	P & F C.P. brass <i>Doom Waste Coupling</i> 40 mm dia.	Each	187.00
1.33	P & F <i>Plastic Syphon</i> of approved make for automatic flush tank.	Each	143.00
1.34	P & F Copper tube Syphon for auto flush tank.	Each	341.00
1.35	Removing and re-fixing of wash hand basin including all necessary fittings.	Each	217.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.36	P & F metal brackets duly painted including cutting & making good the wall.	Pair	150.00
1.37	P & F <i>C.P. Brass flush Valve</i> with C.P. flush bend of approved make.		
1.37.1	Lever type with Elbow 32 mm dia	Each	2327.00
1.37.2	Push type with Elbow 32 mm dia	Each	2431.00
1.37.3	Concealed type for 115 mm thick wall	Each	2783.00
1.37.4	Concealed type for 230 mm thick wall	Each	2873.00
1.37.5	Economy model 25 mm dia.	Each	1663.00
1.37.6	Economy model 32 mm dia.	Each	1821.00
WASH BASINS:			
1.38	P & F <i>WVC wash basin</i> (1 st quality, I.S. : 2556 Mark) of approved make with C.I. brackets duly painted, 1 No. 15 mm C.P. Pillar cock (IS : 8934 Mark) & 32 mm C.P. brass waste coupling of approved make, 25 mm G.I. waste pipe complete including cutting & making good the wall.:		
1.38.1	Size 450 mm x 300 mm	Each	1718.00
1.38.2	Size 510 mm x 400 mm	Each	1824.00
1.38.3	Size 550 mm x 400 mm	Each	1968.00
1.38.4	Size 580 mm x 450 mm	Each	2079.00
1.38.5	Size 610 mm x 510 mm	Each	2634.00
1.38.6	Size 400 mm x 400 mm or 450 mm x 390 mm Corner	Each	1691.00
1.38.7	460 dia for counter top	Each	2240.00
1.38.8	Size 550 mm x 400 mm dia for counter top	Each	2268.00
1.38.9	Size 630 mm x 500 mm dia for counter top	Each	2473.00
1.39	P & F Terrazzo (Mosaic) wash hand basin with supporting brackets waste coupling and PVC waste pipe complete, including painting of brackets making good the walls:		
1.39.1	450 mm x 280 mm	Each	962.00
1.39.2	550 mm x 400 mm	Each	1038.00
KITCHEN & LAB. SINKS:			
1.40	P & F <i>Kitchen & Lab. Sink</i> of approved make with C.I. brackets duly painted, 40 mm C.P. waste coupling, C.P. Brass chain with rubber plug, 40 mm G.I. waste pipe up-to floor level complete including cutting and making good the wall & floor :		
1.40.1	Fire clay glazed kitchen sink (I.S 771-1985 Marked) size 600 x 450 x 250mm.	Each	2947.00
1.40.2	Fire clay glazed kitchen sink (I.S 771-1985 Marked) size 600 x 450 x 200 mm.	Each	2836.00
1.40.3	WVC Lab sink (IS:2556 mark) size 530 x 430 x 180 mm	Each	2087.00
1.40.4	WVC Lab sink (IS:2556 mark) size 500 x 350 x 150 mm	Each	1726.00
1.40.5	WVC Lab sink (IS:2556 mark) size 450 x 300 x 150 mm	Each	1560.00
1.40.6	Mosaic fine polished kitchen sink size 600 x 450 x 200mm.	Each	1227.00
1.40.7	Mosaic fine polished kitchen sink size 450 x 450 x 200mm.	Each	1083.00
1.40.8	Mosaic fine polished kitchen sink size 600 x 450 x 200 mm with 600 x 450mm drain board	Each	1393.00
1.40.9	1.0 mm thick Salem stainless steel AISI -304 & IS 13983-1994 kitchen sink of approved make as per Engineer-in-charge with large waste coupling.		
	Overall size <u>Bowl size</u> (inches) (inches)		
1.40.10	18 x 16 x 6 16x14x6	Each	2892.00
1.40.11	22 x 18 x 7 20x16x7	Each	3280.00
1.40.12	24 x 18 x 8 20x16x8	Each	3835.00
1.40.13	37 x 18 x 7 17x15x7 (with drain board)	Each	4224.00
1.40.14	45 x 20 x 8 20x16x8 (with drain board)	Each	6610.00
Note :-	Deduct for item No 1.41.9 to 1.41.14 for using any other make than specified above.	Each	35%
1.41	P & F <i>Drain Board</i> of approved make with C.I. brackets duly painted complete including cutting & making good the wall:		
1.41.1	WVC (I.S.: 2556 Mark) size 530 x 450mm	Each	1091.00
1.41.2	Mosaic fine polished size 600 x 450	Each	370.00
1.42	P & F 1 st quality WVC pedestal for wash basin.	Each	1313.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
MISCELLANEOUS			
1.43	P & F Bottle Trap of approved make :		
1.43.1	C.P Brass 32 mm	Each	425.00
1.43.2	C.P Brass 40 mm	Each	460.00
1.43.3	Synthetic Material (PTMT)32 mm	Each	372.00
1.43.4	Synthetic Material (PTMT)42 mm	Each	416.00
1.43.5	P.V.C	Each	94.00
1.44	P& F waste Coupling with fittings of approved quality /make:		
1.44.1	C.P Brass 32 mm dia	Each	108.00
1.44.2	C.P Brass 40 mm dia	Each	165.00
1.44.3	C.P. Brass 50 mm dia	Each	198.00
1.44.4	SS 125 mm	Each	231.00
1.45	P& F waste Pipe with all fitting		
1.45.1	P.V.C with C.P nut 32 mm	Each	132.00
1.45.2	P.V.C with PVC nut 32 mm	Each	55.00
1.45.3	P.V.C. with C.P. nut 40 mm dia	Each	143.00
1.45.4	G.I(B class) 32mm	Each	204.00
1.45.5	G.I(B class) 40 mm	Each	270.00
1.46	P & F <i>Bevelled edge Mirror /mirror with teak wood lipping around</i> of special glass of approved make as per direction of Engineer-in-charge complete with 6mm thick commercial ply base fixed to wooden screws & washers.		
1.46.1	Size 600 x 450mm x 4 mm thick	Each	436.00
1.46.2	Other sizes	Sqm.	1075.00
Note :-	For other quality mirrors from approved make mirrors deduct 30%		
1.47	P & F <i>Looking Mirrors</i> with P.V.C. frame of approved make as per direction of Engineer-in-charge		
1.47.1	Size 500x400mm	Each	266.00
1.47.2	Oval shape 450x350 mm	Each	389.00
1.47.3	Round 500mm dia	Each	416.00
Note :-	For other quality mirrors from approved make mirrors deduct 30%		
1.48	P & F Toilet Shelf of approved quality/make:		
1.48.1	W.V.C. (I.S.: 2556 Mark) Size 300mm	Each	333.00
1.48.2	W.V.C. (I.S.: 2556 Mark) Size 550 mm	Each	394.00
1.48.3	Synthetic Material with tumbler of approved quality/make size 470 x 114 x 36mm	Each	327.00
1.48.4	Hard Plastic of approved make as per direction of EI of size 590x140mm	Each	394.00
1.48.5	Acrylic shelf on C.P. brass casted brackets & guard rail of approved make as per direction of EI of size 550x125mm	Each	755.00
1.48.6	Glass Shelf with edges rounded off Anodised Aluminium angle frame & C.P. brass brackets & guard rail size 600x120mm	Each	273.00
1.49	P & F <i>Towel Rail or Ring</i> of approved quality/make:		
1.49.1	C.P. brass Towel Rail elbow type with concealed screws size 450mm (Heavy duty).	Each	340.00
1.49.2	C.P. brass Towel Rail elbow type with concealed screws size 600 mm (Heavy duty).	Each	375.00
1.49.3	C.P. brass towel rail with brackets 450 x 20mm.	Each	215.00
1.49.4	C.P. brass towel rail with brackets 600 x 20mm.	Each	245.00
1.49.5	Synthetic Material(PTMT) of approved quality/make size 525 x90 x 75mm	Each	110.00
1.49.6	Synthetic Material(PTMT) of approved quality/make size 675 x90 x 75mm	Each	120.00
1.49.7	WVC (1 st quality, IS2556 Marked) of approved make. Recessed towel Hanger size 108 x 108mm.	Each	105.00
1.49.8	C.P. Brass Towel Ring revolving type	Each	185.00
1.49.9	Synthetic Material (PTMT) Towel Ring of approved quality/make.	Each	120.00
1.50	P & F Grating of approved quality/make:		
1.50.1	Stainless Steel Sheet size 125mm dia.	Each	45.00
1.50.2	Stainless Steel Sheet size 125mm dia. Heavy Quality of approved make	Each	70.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.50.3	Synthetic Material(PTMT) of approved quality/make size 125mm dia.	Each	65.00
1.50.4	(-do-) 150mm dia.	Each	70.00
1.50.5	(-do-) Square 150 x 150 x 8mm. (Anti Cockroach)	Each	260.00
1.50.6	C.P. brass with frame (Heavy) & superior quality size 125mm dia.	Each	95.00
1.50.7	(-do-) Light & superior quality size 125mm dia	Each	40.00
1.50.8	Cast Iron.	Each	50.00
1.51	P & F <i>Liquid Soap Container</i> with brackets complete of approved make:		
1.51.1	C.P. brass	Each	160.00
1.51.2	Synthetic Material of approved quality/make:	Each	110.00
1.52	P & F <i>Tooth Paste & Brush Holder</i> of approved quality/make:		
1.52.1	C.P. brass	Each	85.00
1.52.2	C.P. brass (Heavy and Superior quality)	Each	350.00
1.52.3	Stainless Steel	Each	215.00
1.53	P & F <i>Toilet Paper Holder</i> with rod of approved quality/make:		
1.53.1	C.P. brass	Each	150.00
1.53.2	C.P. brass heavy & Superior quality.	Each	405.00
1.53.3	WVC (1 st quality, IS 2556 Marked) recessed size 150x150mm.	Each	205.00
1.53.4	(-do-) exposed (-do-)	Each	160.00
1.54	P & F <i>Soap Dish or Tray</i> of approved quality/make		
1.54.1	C.P. brass	Each	85.00
1.54.2	C.P. brass heavy and superior quality.	Each	105.00
1.54.3	WVC (1 st Quality, IS 2556 Marked) recessed size 150 x 150 mm.	Each	190.00
1.54.4	(-do-) 200 x100mm.	Each	220.00
1.54.5	(-do-) Soap tray 170mm.	Each	165.00
1.54.6	(-do-) Soap Dish 380mm.	Each	220.00
1.55	P & F Twin- peg of approved quality / make		
1.55.1	C.P. brass	Each	53.00
1.55.2	C.P. brass (heavy)Superior quality	Each	100.00
1.55.3	Acrylic	Each	51.00
1.56	P & F Shower arm 15mm dia of approved quality/make.		
1.56.1	C.P.brass heavy & superior quality 150mm Projection.	Each	133.00
1.56.2	(-do-) size 220mm(-do-)	Each	207.00
1.56.3	(-do-) size 300mm.(-do-)	Each	227.00
1.56.4	(-do-) size 370mm.(-do-)	Each	253.00
1.57	P & F Bath Shower of approved quality/make.		
1.57.1	C.P. brass fixed.	Each	100.00
1.57.2	C.P. brass of Heavy & superior quality 150mm.	Each	253.00
1.57.3	C.P. brass of Heavy & superior quality, revolving with adjustable key 150mm.	Each	386.00
1.58	P & F Extension Pipe for bib cocks of approved quality/make.		
1.58.1	C.P. brass of Heavy & Superior quality 50x15mm	Each	67.00
1.58.2	(-do-) 100 X 15mm.	Each	94.00
1.58.3	(-do-) 150 X 15mm.	Each	133.00
1.59	P & F <i>Acrylic Toilet accessories set</i> consisting of Towel rail, shelf, towel ring, soap dish, paste & brush holder & twin peg of approved quality/make.	Each	932.00
1.60	Labour Charges for removing WVC pan:		
1.60.1	Indian/Orissa pan	Each	103.00
1.60.2	European W.C.	Each	103.00
1.60.3	Flushing cistern	Each	48.00
1.61	P & F <i>Jet spray</i> for water closet with C.P. Copper Tube flange of approved make.	Each	266.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.62	Providing & fixing C.P.flange for 15mm dia taps.	Each	12.00
1.63	Providing and fixing 1st quality standard white, grey, ivory, fume red brown, light green, light blue and other light shades glazed tiles confirming to IS : 13753 & IS :15622 of size 200mm x 300mm in walls, floors, steps, pillars etc. laid on a bed of neat cement slurry finished with flush pointing in the white cement mixed with pigment to match the shade of the tile complete (excluding the cost of cement plaster on walls and pillar).	Sqm.	613.00
1.64	Providing and fixing 1st quality MAT finished ceramic tile size 300x300mm confirming to IS : 13755 and IS : 15622 colour such as white, grey, ivory, fume red brown, light green, light blue and other light shades in floors, steps, pillars etc. laid on a bed of neat cement slurry finished with flush pointing in the white cement mixed with pigment to match the shade of the tile complete (including the cost of cement mortar bed 1:4).	Sqm.	680.00
1.65	Extra for using Marble printed / Granite shade or dark shade tiles instead of white, grey, ivory, fume red brown, light green, light blue and other light shades in glazed tiles and MAT finished tiles.	Sqm	10%
1.66	Extra for using size above 200x300mm in glazed tiles and for using 400mm x 400mm MAT finished tiles in place of 300mm x 300mm size.	Sqm	10%
1.67	Filling of sunk portion of roof with earthen pots of required height including filling voids with 1:3:6 light concrete, using brick bats complete levelling and dressing the surface by 50mm thick cement concrete 1:2:4 as per specification.	Cum	1231.00
1.68	P & F C.P. Health Faucet with 1Mtr. Long Tube & Hook of approved make and heavy as per direction of Enginner-in-Charge	Each	550.00
1.69	P & F C.P. brass Urinal Spreader for Large Urinal of heavy duty of approved make as per direction of Enginner-in-Charge	Each	561.00
1.70	Removing & Re fixing of P.V.C. Cistern fittings (Syphon, Ball cock & Handle Set) complete as per direction of Enginner-in-Charge	Each	341.00

CHAPTER : S-2
WATER SUPPLY INSTALLATION

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
	GALVANISED IRON PIPES		
2.1	P & F G.I. pipes (Internal Work) with G.I. Fittings excluding union (IS:1239 Mark) & MS clamps including cutting and making good the walls and floors:		
(a)	Exposed on wall		
2.1.1	15 mm dia nominal bore		
	'A' Class	Mtr.	146.00
	'B' Class	Mtr.	166.00
2.1.2	20mm dia nominal bore		
	'A' Class	Mtr.	190.00
	'B' Class	Mtr.	203.00
2.1.3	25mm dia nominal bore		
	'A' Class	Mtr.	234.00
	'B' Class	Mtr.	259.00
2.1.4	32mm dia nominal bore		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
	'A' Class	Mtr.	283.00
	'B' Class	Mtr.	313.00
2.1.5	40mm dia nominal bore		
	'A' Class	Mtr.	352.00
	'B' Class	Mtr.	382.00
2.1.6	50mm dia nominal bore		
	'A' Class	Mtr.	436.00
	'B' Class	Mtr.	484.00
2.1.7	65mm dia nominal bore		
	'A' Class	Mtr.	528.00
	'B' Class	Mtr.	570.00
2.1.8	80mm dia nominal bore		
	'A' Class	Mtr.	603.00
	'B' Class	Mtr.	692.00
(b)	Concealed pipe in wall including painting with anticorrosive bitumen paint		
2.1.9	15 mm dia nominal bore		
	'A' Class	Mtr.	156.00
	'B' Class	Mtr.	174.00
2.1.10	20mm dia nominal bore		
	'A' Class	Mtr.	188.00
	'B' Class	Mtr.	200.00
2.2	P & F G.I. Pipes (External Work) with G.I. fittings excluding union (IS : 1239 Mark) including trenching & refilling earth etc.		
2.2.1	15mm dia nominal bore		
	'A' Class	Mtr.	118.00
	'B' Class	Mtr.	137.00
2.2.2	20mm dia nominal bore		
	'A' Class	Mtr.	149.00
	'B' Class	Mtr.	160.00
2.2.3	25mm dia nominal bore		
	'A' Class	Mtr.	177.00
	'B' Class	Mtr.	200.00
2.2.4	32mm dia nominal bore		
	'A' Class	Mtr.	218.00
	'B' Class	Mtr.	246.00
2.2.5	40mm dia nominal bore		
	'A' Class	Mtr.	260.00
	'B' Class	Mtr.	284.00
2.2.6	50mm dia nominal bore		
	'A' Class	Mtr.	313.00
	'B' Class	Mtr.	353.00
2.2.7	65mm dia nominal bore		
	'A' Class	Mtr.	415.00
	'B' Class	Mtr.	447.00
2.2.8	80mm dia nominal bore		
	'A' Class	Mtr.	479.00
	'B' Class	Mtr.	555.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.2.9	100mm dia nominal bore		
	'A' Class	Mtr.	642.00
	'B' Class	Mtr.	765.00
2.2.10	125mm dia nominal bore		
	'A' Class	Mtr.	932.00
	'B' Class	Mtr.	1046.00
2.3	Making connection of G.I. distribution branch with G.I. main including all fitting.		
2.3.1	Upto 25mm dia	Each	230.00
2.3.2	Beyond 25mm & upto 100mm dia	Each	338.00
2.4	Fixing water meter (IS: 779 mark) and stop cock in G.I. pipe line including making chamber of approved size excluding cost of water meter & stop cock.	Each	267.00
2.5	P & F water meter (IS : 779 mark) of approved make.		
2.5.1	15mm dia	Each	863.00
2.5.2	20mm dia	Each	1576.00
2.5.3	25 mm dia	Each	2162.00
COCKS, MIXERS, DIVERTORS & VALVES			
Note:			
(a)	The rates are for ISI marked item.		
(b)	If the items are Non- ISI marked, reduce the rate by 25%.		
2.6	P & F Pillar Cocks (IS :8934 Mark) of superior quality and approved make:		
2.6.1	C.P. Pillar cock, 15 mm dia nominal bore	Each	708.00
2.6.2	C.P. Pillar cock Elbow action, 15 mm nominal bore.	Each	745.00
2.6.3	C.P. Pillar cock fancy type ,15mm nominal bore.	Each	818.00
2.6.4	C.P. Pillar cock, Swan-neck with casted spout, 15mm nominal bore.	Each	1133.00
2.6.5	C.P. Pillar cock, high-neck, 15 mm nominal bore.	Each	708.00
2.6.6	Synthetic Material (PTMT) Pillar cock of approved quality / make 15mm nominal bore.	Each	321.00
2.7	P & F Bib Cock (IS : 8931 Mark), Superior quality of approved make:		
2.7.1	Brass 400 gm,15mm nominal bore.	Each	259.00
2.7.2	P.V.C.heavy duty, 15mm nominal bore.	Each	91.00
2.7.3	C.P. Brass bib cock,15mm nominal bore.	Each	536.00
2.7.4	C. P. Brass swan - neck, 15mm nominal bore.	Each	674.00
2.7.5	(-do-) Long body, 15mm nominal bore weight not less than 690 gm	Each	712.00
2.7.6	(-do-) Long nose, 15mm nominal bore weight not less than 810 gm	Each	916.00
2.7.7	(-do-) Elbow-action, 15mm nominal bore.	Each	866.00
2.7.8	Synthetic Material(PTMT) bib cock of approved quality/ make, nominal bore, 15mm, 86 mm long.	Each	162.00
2.7.9	(-do-) Fancy Type, 122 mm long.	Each	201.00
2.7.10	(-do-) Long Body, 175 mm long	Each	256.00
2.8	P & F <i>Stop Cock</i> (IS :8931 Mark), superior quality & of approved make:		
2.8.1	Brass 400 gm. 15mm nominal bore.	Each	272.00
2.8.2	(-do-) 750 gm. 20 mm nominal bore.	Each	399.00
2.8.3	(-do-) 1350gm. 25 mm nominal bore.	Each	663.00
2.8.4	C.P. Brass 15mm nominal bore.	Each	434.00
2.8.5	(-do-) Concealed Stop Cock 15mm.	Each	917.00
2.8.6	Synthetic material (PTMT) stop cock of approved quality/make 15mm.	Each	201.00
2.8.7	(-do-) Concealed stop cock 15mm	Each	235.00
2.9	P & F Sink Cocks of superior quality & approved made :		
2.9.1	C.P. Sink cock swinging spout 15mm.	Each	888.00
2.9.2	(-do-) Casted Spout 15 mm.	Each	888.00
2.10	P & F <i>Push Cock</i> superior quality, of approved make		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2..10.1	C.P. Brass 15 mm.	Each	336.00
2.10.2	Synthetic Material (PTMT) push cock of approved quality/make 15mm.	Each	186.00
2.11	P & F <i>Ball Cock</i> (IS :1703 Mark) with Rod & P.V.C. Ball complete :		
2.11.1	Brass wt.400 gm,15mm.	Each	228.00
2.11.2	Brass wt.750 gm, 20mm.	Each	271.00
2.11.3	(-do-) wt.1000 gm, 25mm.	Each	320.00
2.11.4	(-do-) wt.1000 gm, 32mm.	Each	349.00
2.11.5	(-do-) wt.1200 gm 40mm.:	Each	530.00
2.11.6	(-do-) wt.2000 gm 50mm.	Each	574.00
2.11.7	Synthetic material (PTMT) of approved make 15mm nominal size.	Each	240.00
2.11.8	(-do-) 20 mm nominal size.	Each	332.00
2.11.9	(-do-) 25 mm nominal size.	Each	615.00
2.11.10	(-do-) 50 mm nominal size.	Each	1595.00
2.12	P & F <i>Inlet Connection</i> (Angle Valves) Superior quality, of approved make, for Wash basin, Gyser etc.		
2.12.1	C.P. Inlet connection 15mm.Brass (IS : 8931 marked)	Each	434.00
2.12.2	---do--- with 37 cm long pipe and nut.	Each	536.00
2.12.3	---do--- with 37 cm long thread and nut	Each	569.00
2.12.4	Synthetic Material (PTMT) Inlet connection of approved quality/make 15 mm nominal size.	Each	199.00
2.13	P & F 15 mm. Dia <i>Connection Pipe</i> of approved quality/make :		
2.13.1	PVC pipe with C.P. Brass nuts upto length, 300mm	Each	66.00
2.13.2	(-do-) upto length 370mm	Each	72.00
2.13.3	(-do-) 450mm.	Each	88.00
2.13.4	(-do-) 600mm.	Each	100.00
2.13.5	CP Brass Pipe with CP Brass nuts upto length 300mm.	Each	88.00
2.13.6	(-do-) 370mm.	Each	112.00
2.13.7	(-do-) 450mm.	Each	124.00
2.13.8	(-do-) 600mm.	Each	160.00
2.14	P & F <i>Flush Cock / Flush Valve</i> (IS : 9758 Mark) for WC of approved quality make :		
2.14.1	CP brass push type 15mm nominal bore.	Each	325.00
2.14.2	(-do-) 20mm nominal bore.	Each	492.00
2.14.3	(-do-)exposed 25mm nominal bore.	Each	833.00
2.14.4	(-do-) 32mm nominal bore.	Each	1183.00
2.14.5	(-do-) concealed 25mm nominal bore.	Each	844.00
2.14.6	(-do-) concealed 32mm nominal bore.	Each	1293.00
2.14.7	(-do-) Half-turn exposed 25mm nominal bore.	Each	712.00
2.14.8	(-do-) Concealed 25mm nominal bore.	Each	820.00
2.14.9	Brass / Gun metal Half-turn wt. 1 Kg. of approved quality / make, 25mm nominal bore.	Each	501.00
2.14.10	CP Brass flush valve 32mm nominal bore	Each	1812.00
2.15	P & F <i>Full-way Valve</i> (IS:778 Mark) or wheel valve of approved make :		
2.15.1	Gun-metal 15mm nominal bore.	Each	206.00
2.15.2	(-do-) 20mm nominal bore.	Each	325.00
2.15.3	(-do-) 25mm nominal bore.	Each	481.00
2.15.4	(-do-) 32mm nominal bore.	Each	639.00
2.15.5	(-do-) 40mm nominal bore.	Each	976.00
2.15.6	(-do-) 50mm nominal bore.	Each	1331.00
2.15.7	(-do-) 65mm nominal bore.	Each	1621.00
2.15.8	(-do-) 80mm nominal bore.	Each	2427.00
2.16	P & F <i>Gun-metal Non-return Valve or Check Valve</i> (IS :Make) of approved make, superior quality:		
2.16.1	15mm nominal bore.		
(a)	Horizontal	Each	247.00
(b)	Vertical	Each	216.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.16.2	20mm nominal bore.		
(a)	Horizontal	Each	312.00
(b)	Vertical	Each	276.00
2.16.3	25mm nominal bore.		
(a)	Horizontal	Each	451.00
(b)	Vertical	Each	366.00
2.16.4	32mm nominal bore.		
(a)	Horizontal	Each	634.00
(b)	Vertical	Each	530.00
2.16.5	40mm nominal bore.		
(a)	Horizontal	Each	882.00
(b)	Vertical	Each	674.00
2.16.6	50mm nominal bore.		
(a)	Horizontal	Each	1287.00
(b)	Vertical	Each	876.00
2.17	P & F <i>Flush Valve</i> (Hydraulic) with level complete (IS : 9758 Mark) of approved make :		
2.17.1	32mm nominal bore.	Each	2409.00
2.17.2	25mm nominal bore.	Each	2068.00
2.18	P & F Oxidised Gas Taps, Bench-type of superior quality and approved make:		
2.18.1	One way	Each	209.00
2.18.2	Two way	Each	281.00
2.18.3	Three way	Each	354.00
2.18.4	Four way	Each	415.00
2.19	P & F Chromium plated <i>Swan-neck Laboratory Cock</i> of approved quality / make:		
2.19.1	One way	Each	349.00
2.19.2	Two way	Each	477.00
2.19.3	Three way	Each	574.00
2.19.4	Four way	Each	628.00
2.20	P & F <i>Spouts</i> of superior quality and approved make:		
2.20.1	C.P. brass spout	Each	602.00
2.20.2	(-do-) Extra heavy with flange.	Each	736.00
2.21	P & F <i>Mixing Range</i> (15mm)		
2.21.1	C.P. One hole/close hole basin mixer with casted spout.	Each	1582.00
2.21.2	(-do-) with swinging spout casted.	Each	1819.00
2.21.3	C.P. sink mixer with swinging spout J-pipe.	Each	1705.00
2.21.4	(-do-) With casted spout.	Each	1760.00
2.21.5	C.P. valve mixer non-telephonic type.	Each	1636.00
2.21.6	C.P. wall mixer telephonic type crutch & telephonic shower.	Each	2890.00
2.21.7	(-do-) without crutch & telephonic shower.	Each	2310.00
2.21.8	C.P. Bath-tub mixer without telephonic shower but with crutch.	Each	2860.00
2.21.9	C.P. Surgical basin mixer elbow action.	Each	2310.00
2.21.10	(-do-) with shower (wall type)	Each	4164.00
2.22	P & F <i>Divertors</i> of superior quality and approved make:		
2.22.1	C.P. brass Tip-tone divertor bath spout with mixing valve.	Each	2324.00
2.22.2	(-do-) Concealed Five-way divertors.	Each	2336.00
2.22.3	(-do-) Four way (-do-)	Each	2409.00
2.22.4	(-do-) Three way (-do-)	Each	2233.00
2.22.5	(-do-) Two way with 22Cm. Pipe flange	Each	1282.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.23	P & F foot valve of superior quality and approved make with fittings :		
2.23.1	Brass 25 mm.	Each	156.00
2.23.2	CI 50 mm	Each	392.00
2.23.3	CI 65 mm	Each	494.00
2.23.4	CI 80 mm	Each	755.00
2.24	P & F <i>Precast R.C.C. Water Storage Tank</i> with R.C.C. cover 25mm thick and 15 Cm. Long G.I. over-flow pipe including making connections etc. & hoisting upto 1M. ht. From ground level having:		
2.24.1	340 litres water capacity size 90 x 75 x 60 Cm.	Each	770.00
2.24.2	270 litres water capacity size 90 x 60 x 60 Cm.	Each	625.00
2.25	Hoisting Charges of precast R.C.C. water storage tank on each floor :		
2.25.1	340 litres water capacity.	Each	180.00
2.25.2	270 litres water capacity.	Each	134.00
2.26	P & F <i>PVC Storage Tank</i> ISI Marked (IS : 12701) indicating the BIS license No), of approved make with cover, 25mm dia 1M long G.I. over-flow pipe & 25 Cm. long wash out pipe with plug & socket, including making connection etc., complete of approved design:		
2.26.1	200 litres capacity.	Each	1296.00
2.26.2	300 (-do-)	Each	1944.00
2.26.3	500 (-do-)	Each	3240.00
2.26.4	750 (-do-)	Each	4860.00
2.26.5	1000 (-do-)	Each	6480.00
2.26.6	2000 (-do-)	Each	12960.00
2.26.7	3000(-do-)	Each	19440.00
2.26.8	5000(-do-)	Each	32400.00
2.27	Hoisting Charges for each floor :		
2.27.1	For items 2.26.1 to 2.26.4	Each	77.00
2.27.2	For items 2.26.5 to 2.26.8	Each	110.00
2.28	Providing and fixing Bitumen Paint Coating over G.I. Pipes Complete as per Specifications. –		
2.28.1	15 mm dia	Rmt.	1.00
2.28.2	20 mm dia	Rmt.	1.40
2.28.3	25 mm dia	Rmt.	1.60
2.28.4	40 mm dia	Rmt.	2.60
2.29	Providing and fixing Polyethylene - Aluminium -Polyethylene (PE-AL-PE) Composite Pressure Pipes as per 15450 : 2004 U.V. stabilised with carbon black having thermal stability for hot and cold water supply, capable to withstand temperature upto 80 oC including all special fittings of composite material (engineering plastic blend and brass inserts whenever required) e.g. elbows, tees, reducers, couplers connectors etc.with clamps at 1.00 metre spacing.This include the cost of cutting chases and including testing of joints complete as per direction of Engineer In charge		
	Internal work - Exposed on Wall		
2.29.1	1216 (16mm OD) pipe	Metre	173.00
2.29.2	1620 (20mm OD) pipe	Metre	204.00
2.29.3	2025 (25mm OD) pipe	Metre	248.00
2.29.4	2532 (32mm OD) pipe	Metre	329.00
2.29.5	3240 (40mm OD) pipe	Metre	423.00
2.30	Providing and fixing Polyethylene - Aluminium -Polyethylene (PE-AL-PE) Composite Pressure Pipes as per 15450 : 2004 U.V. stabilised with carbon black having thermal stability for hot and cold water supply, capable to withstand temperature upto 80 oC including all special fittings of composite material (engineering plastic blend and brass inserts whenever required) e.g. elbows, tees, reducers, couplers connectors etc.with clamps at 1.00 metre spacing.This include the cost of cutting chases and including testing of joints complete as per direction of Engineer In charge		
	Concealed installation including cutting chases and making good the walls etc. complete.		
2.30.1	1216 (16mm OD) pipe	Metre	177.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.30.2	1620 (20mm OD) pipe	Metre	201.00
2.30.3	2025 (25mm OD) pipe	Metre	237.00
2.30.4	2532 (32mm OD) pipe	Metre	308.00
2.30.5	3240 (40mm OD) pipe	Metre	376.00
2.31	Providing and fixing Polyethylene - Aluminium -Polyethylene (PE-AL-PE) Composite Pressure Pipes as per 15450 : 2004 U.V. stabilised with carbon black having thermal stability for hot and cold water supply, capable to withstand temperature upto 80 oC including all special fittings of composite material (engineering plastic blend and brass inserts whenever required) e.g. elbows, tees, reducers, couplers connectors etc.with trenching & refilling and testing of joints complete as per direction of Engineer In charge External work		
2.31.1	1216 (16mm OD) pipe	Metre	156.00
2.31.2	1620 (20mm OD) pipe	Metre	181.00
2.31.3	2025 (25mm OD) pipe	Metre	217.00
2.31.4	2532 (32mm OD) pipe	Metre	288.00
2.31.5	3240 (40mm OD) pipe	Metre	356.00
2.32	Supply & fixing G.I. Union ISI marked in G.I. pipe line as required complete in all respect of size :		
2.32.1	15mm dia nominal bore	Each	92.00
2.32.2	20mm dia nominal bore	Each	127.00
2.32.3	25mm dia nominal bore	Each	149.00
2.32.4	32mm dia nominal bore	Each	220.00
2.32.5	40mm dia nominal bore	Each	278.00
2.32.6	50mm dia nominal bore	Each	421.00
2.32.7	65mm dia nominal bore	Each	820.00
2.32.8	80mm dia nominal bore	Each	946.00
2.33	Providing and fixing Superior quality CP Brass fittings of approved make as per direction of Engineer-in-charge		
2.33.1	Pillar Cock 15 mm nominal size	Each	748.00
2.33.2	Swan neck pillar cock 15 mm nominal size	Each	1436.00
2.33.3	Bib Cock with long thread 15 mm nominal size	Each	748.00
2.33.4	Long body Bib Cock 15 mm nominal size	Each	985.00
2.33.5	Two way Bib Cock 15 mm nominal size	Each	1067.00
2.33.6	Angular stop cock with long thread 15 mm nominal size	Each	693.00
2.33.7	Stop cock long thread	Each	726.00
2.33.8	Stop cock with reduced body	Each	924.00
2.33.9	Concealed stop cock 15 mm nominal size	Each	1056.00
2.33.10	Sink cock with swinging casted spout (table mounted) 15 mm nominal size	Each	1474.00
2.33.11	Single lever wash basin mixer with 450 mm long copper connection pipe	Each	4235.00
2.33.12	Central hole basin mixer	Each	2453.00
2.33.13	Wall mixer 3 in 1 system with provision of telephonic bath shower with bend pipe	Each	3403.00
2.33.14	600 mm long towel rail	Each	1637.00
2.33.15	Revolving type towel ring	Each	1001.00
2.33.16	Soap dish	Each	974.00
2.33.17	Double coat hook	Each	748.00
2.33.18	190 mm rain shower	Each	5075.00
2.33.19	Shower arm	Each	1100.00
2.33.20	Paper holder	Each	1023.00
2.33.21	Hand shower with 8 mm dia 1 mt long PVC tube & wall hook complete	Each	1665.00
2.34	Providing and fixing 3-layer PP-R (Polypropylene random copolymer) pipes SDR 7.4 UV stabilized and antimicrobial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded Polypropylene random fittings and fixing the pipe with clamps at 1.00 spacing. This includes testing of joint complete as per direction of Engineer - in charge.(INTERNAL WORK- EXPOSED ON WALL)		
2.34.1	PN-16 Pipe, 16 mm OD	Rm	131.00
2.34.2	PN-16 Pipe, 20 mm OD	Rm	150.00
2.34.3	PN-16 Pipe, 25 mm OD	Rm	215.00
2.34.4	PN-16 Pipe, 32 mm OD	Rm	301.00
2.34.5	PN-16 Pipe, 40 mm OD	Rm	417.00
2.34.6	PN-16 Pipe, 50 mm OD	Rm	605.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.35	Providing and fixing 3-layer PP-R (Polypropylene random copolymer) pipes SDR 7.4 UV stabilized and antimicrobial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded Polypropylene random fittings and fixing the pipe with clamps at 1.00 spacing. This includes cost of cutting chases and making good the same including testing of joint complete as per direction of Engineer - in charge. (CONCELED WORK INCLUDING CUTTING CHASES AND MAKING GOOD THE WALL ETC.)		
2.35.1	PN-16 Pipe, 16 mm OD	Rm	179.00
2.35.2	PN-16 Pipe, 20 mm OD	Rm	201.00
2.35.3	PN-16 Pipe, 25 mm OD	Rm	259.00
2.35.4	PN-16 Pipe, 32 mm OD	Rm	345.00
2.36	Providing and fixing 3-layer PP-R (Polypropylene random copolymer) pipes SDR 7.4 UV stabilized and antimicrobial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded Polypropylene random fittings including trenching, refilling and testing of joint complete as per direction of Engineer - in charge. (EXTERNAL WORKS)		
2.36.1	PN-16 Pipe, 16 mm OD	Rm	118.00
2.36.2	PN-16 Pipe, 20 mm OD	Rm	140.00
2.36.3	PN-16 Pipe, 25 mm OD	Rm	198.00
2.36.4	PN-16 Pipe, 32 mm OD	Rm	285.00
2.36.5	PN-16 Pipe, 40 mm OD	Rm	400.00
2.36.6	PN-16 Pipe, 50 mm OD	Rm	516.00
2.36.7	PN-16 Pipe, 63 mm OD	Rm	868.00
2.37	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes , having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. (Internal work Exposed on wall)		
2.37.1	15 mm nominal outer dia pipes	Rm	122.00
2.37.2	20mm nominal outer dia pipes	Rm	143.00
2.37.3	25 mm nominal outer dia pipes	Rm	188.00
2.37.4	32mm nominal outer dia pipes	Rm	246.00
2.37.5	40 mm nominal outer dia pipes	Rm	346.00
2.37.6	50 mm nominal outer dia pipes	Rm	535.00
2.38	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes , having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. (Concealed work including cutting chases and making good the walls etc.,)		
2.38.1	15 mm nominal outer dia pipes	Rm	190.00
2.38.2	20mm nominal outer dia pipes	Rm	198.00
2.38.3	25 mm nominal outer dia pipes	Rm	263.00
2.38.4	32mm nominal outer dia pipes	Rm	333.00
2.39	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes , having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings, this included jointing of pipes & fittings with one step CPVC solvent cement , trenching refilling & testing of joints complete as per direction of Engineer in Charge. (External work).		
2.39.1	15 mm nominal outer dia pipes	Rm	112.00
2.39.2	20mm nominal outer dia pipes	Rm	131.00
2.39.3	25 mm nominal outer dia pipes	Rm	175.00
2.39.4	32mm nominal outer dia pipes	Rm	229.00
2.39.5	40 mm nominal outer dia pipes	Rm	314.00
2.39.6	50 mm nominal outer dia pipes	Rm	525.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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**CHAPTER : S-3
DRAINAGE / DISPOSAL WORK**

Note :-

- 1 For laying of S.W. pipes beyond 1.2m depth, earthwork & close timbering or open timbering (as per site conditions) is to be paid extra.
- 2 The rates for S.W. pipes are applicable to work executed in soils above sub-soil water level. Extra allowance is to be made for working under sub-soil water level.
- 3 Rock cutting wherever required will be paid extra.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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STONEWARE PIPES & FITTING

3.1	Providing Laying & jointing glazed S.W. pipes grade `A` (IS:651 marked) of approved make with spun yarn & stiff mixture of cement mortar 1:1, excavation & refilling of earth in all types of soil upto 1.2m depth, S.W. fittings, including testing of joints etc, complete.		
3.1.1	100mm dia	Mtr.	229.00
3.1.2	150mm dia	Mtr.	369.00
3.1.3	200mm dia	Mtr.	514.00
3.1.4	230mm dia	Mtr.	581.00
3.1.5	250mm dia	Mtr.	677.00
3.1.6	300mm dia	Mtr.	949.00
3.1.7	400mm dia	Mtr.	1387.00
Note:-			
1	If grade `AA` S.W. pipes (IS:651 mark) are used then add 5%		
2	Deduct 5% if jointing is done in CM 1:3.		
3.2	Providing & Laying C.C. 1:5:10 (Stone aggregate 40mm nominal size) all around S.W. pipe including 15 Cm. thick bed concrete (Width W= Diameter of pipe in Cm+30 Cm.)(Excluding cost of pipe)		
3.2.1	100mm dia S.W. pipe	Mtr.	396.00
3.2.2	150mm dia S.W. pipe	Mtr.	485.00
3.2.3	200mm dia S.W. pipe	Mtr.	485.00
3.2.4	230mm dia S.W. pipe	Mtr.	618.00
3.2.5	250mm dia S.W. pipe	Mtr.	653.00
3.2.6	300mm dia S.W. pipe	Mtr.	751.00
3.2.7	350mm dia S.W. pipe	Mtr.	850.00
3.2.8	400mm dia S.W. pipe	Mtr.	948.00
3.3	Providing & Laying C.C. 1:5:10 (Stone aggregate 40mm nominal size) upto haunches of S.W. pipes including 150 mm thick bed concrete (Width W= Dia of pipe in Cm+ 30Cm.) concrete width to be reduced from width W at center of pipe to `0` at top of pipe. (Excluding cost of pipe)		
3.3.1	100mm dia S.W. pipe	Mtr.	188.00
3.3.2	150mm dia S.W. pipe	Mtr.	306.00
3.3.3	200mm dia S.W. pipe	Mtr.	358.00
3.3.4	230mm dia S.W. pipe	Mtr.	393.00
3.3.5	250mm dia S.W. pipe	Mtr.	418.00
3.3.6	300mm dia S.W. pipe	Mtr.	482.00
3.3.7	350mm dia S.W. pipe	Mtr.	550.00
3.3.8	400mm dia S.W. pipe	Mtr.	618.00
3.4	Providing & fixing S.W. <i>square mouth Gully trap</i> `A` grade (IS 651-1992 marked) of approved make & design in existing man-hole.		
3.4.1	Size 100 X 100mm	Each	122.00
3.4.2	Size 150 X 100mm	Each	131.00
3.4.3	Size 225 X 150mm	Each	170.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.5	P & F <i>Square-mouth</i> gully trap `A` grade (IS 651-1992 :marked) of approved make complete with C.I. grating, frame & Cover masonry chamber in C.M. 1:6, 100mm thick C.C. 1:5:10 base concrete, 40mm thick C.C.M-15 grade coping, 12mm thick cement plaster in CM 1:3 complete as per approved design & type.		
3.5.1	Trap size 150 X 100mm, ferrow cement cover with frame, Internal Chamber size 300 X 300mm.	Each	996.00
3.5.2	Trap size 225 X 150 mm, ferrow cement cover with frame Internal Chamber size 450 X 450mm.	Each	1343.00
3.6	P & F S.W. <i>Master Trap</i> (Inter-cepting) `A` grade (I.S.: 651 marked) of approved quality/make		
3.6.1	100mm dia	Each	313.00
3.6.2	150mm dia	Each	442.00
3.7	Labour charges for Removing S.W. pipes including breaking of joints & bed concrete, stacking of useful material at site within 50 mtr. Lead and disposal of unserviceable material within 0.5 Km. lead:		
3.7.1	100 & 150mm dia pipe	Mtr.	20.00
3.7.2	200, 230 & 250mm dia pipe	Mtr.	22.00
3.7.3	300mm dia pipe	Mtr.	23.00
3.7.4	350mm dia pipe	Mtr.	26.00
3.7.5	400mm dia pipe	Mtr.	27.00
	R.C.C. NON PRESSURE PIPES		
3.8	Providing, Laying & Jointing R.C.C. class NP-2 Non-Pressure pipes (IS : 458mark) of approved make with collars, jointed with C.M. 1:2 or having Spigot and socket ends with flexible rubber rings joint including testing of joints etc. complete :		
3.8.1	100mm dia Internal	Mtr.	353.00
3.8.2	150mm dia Internal	Mtr.	433.00
3.8.3	200mm dia Internal	Mtr.	487.00
3.8.4	250mm dia Internal	Mtr.	643.00
3.8.5	300mm dia Internal	Mtr.	716.00
3.8.6	450mm dia Internal	Mtr.	1119.00
3.8.7	500mm dia Internal	Mtr.	1253.00
3.8.8	600mm dia Internal	Mtr.	1608.00
3.8.9	700 mm dia Internal	Mtr.	1964.00
3.8.10	800 mm dia Internal	Mtr.	2702.00
3.8.11	900 mm dia Internal	Mtr.	3193.00
Note :	Deduct 20 % for Non ISI marked pipes of all size		
	SAND-CAST IRON SOIL, WATER & RAIN WATER PIPES.		
3.9	P & F <i>Sand-cast Iron</i> (S.C.I.) Pipe (IS : 1729mark) of approved make in wall or in floor with M.S. holder bat clamps in 10 X 10 X 10 Cm. M-15 grade concrete blocks, joints filled with CM 1:4 with spun yarn including cutting holes and making good the wall:		
3.9.1	50mm dia	Mtr.	690.00
3.9.2	75mm dia	Mtr.	865.00
3.9.3	100mm dia	Mtr.	1116.00
3.9.4	150mm dia	Mtr.	1851.00
3.10	Add extra for <i>Lead caulked joints</i> (IS:782-1978) in sand cast iron pipes/spun-		
3.10.1	75mm dia, 0.88 Kg. Pig lead	Each	286.00
3.10.2	100mm dia, 0.98 Kg. Pig lead	Each	317.00
3.10.3	150mm dia, 1.48 Kg. Pig lead	Each	392.00
3.11	P & F <i>S.C.I. Fittings</i> (IS : 1729 mark) in CM 1:4 with spun yarn.		
3.11.1	50mm w/o door		
(i)	Socket	Each	231.00
(ii)	Cowel	Each	293.00
(iii)	Tee	Each	424.00
(iv)	Bend	Each	344.00
3.11.2	75 mm w/o door		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
(i)	Offset	Each	405.00
(ii)	Socket	Each	273.00
(iii)	D/door Y-Tee	Each	669.00
(iv)	Cowel	Each	360.00
(v)	Tee	Each	482.00
(vi)	Bend	Each	431.00
(vii)	Door Cross	Each	468.00
3.11.3	100mm-do-		
(i)	Offset	Each	639.00
(ii)	Socket	Each	325.00
(iii)	D/door Y-Tee	Each	932.00
(iv)	Cowel	Each	425.00
(v)	Tee	Each	660.00
(vi)	Bend	Each	502.00
(vii)	Door Cross	Each	510.00
3.11.4	150mm w/o door		
(i)	Socket	Each	727.00
(ii)	Cowel	Each	858.00
(iii)	Bend	Each	1070.00
3.11.5	50mm with door		
(i)	Tee	Each	518.00
(ii)	Bend	Each	395.00
3.11.6	75mm-do-		
(i)	Tee	Each	538.00
(ii)	Bend	Each	458.00
3.11.7	100mm-do-		
(i)	Tee	Each	719.00
(ii)	Bend	Each	579.00
3.11.8	150mm-do-		
(i)	Tee	Each	1499.00
(ii)	Bend	Each	1244.00
3.12	P & F Sand –cast Floor Trap (Nahni) of (IS:1729 mark) of approved quality/make with socket down or hinged grating including cutting and making good the floor.		
3.12.1	Size 100 x 100mm	Each	600.00
3.12.2	Size 100 x 75mm	Each	572.00
3.12.3	Size 100 x 50mm	Each	330.00
3.13	P & F Sand-cast Iron `P` or `S` Trap (IS:1729 make) of approved make.	Each	803.00
3.14	Labour charges for making connection of sewer line through main hole.	Each	472.00
3.15	Making connection with existing G.I. pipe lines of all sizes.	Each	195.00
3.16	Labour charges for removing C.I./A.C. pipes of all sizes including accessories with care and stacking of useful material.	Mtr.	10.00
	RIGID PVC SOIL		
3.17	P&F rigid PVC Pipe (IS:4985 mark) class II/ (4 Kg. /Cm ² .) approved quality /make including joining the pipe with solvent cement rubber ring and lubricant.		
3.17.1	63 mm dia	Mtr	99.00
3.17.2	75 mm dia	Mtr	119.00
3.17.3	110 mm dia	Mtr	188.00
3.17.4	160 mm dia	Mtr	270.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.18	P&F rigid <i>PVC pipe fittings</i> (IS: 4985 mark) of approved quality /make including joining the pipe with solvent cement rubber ring and lubricant:		
3.18.1	Coupler (socket)		
(i)	75mm dia	Each	61.00
(ii)	110mm dia	Each	75.00
(iii)	160 mm dia	Each	83.00
3.18.2	Reducer 110 X 75 mm		
(i)	75mm dia	Each	63.00
(ii)	110mm dia	Each	68.00
(iii)	160 mm dia	Each	80.00
3.18.3	Plain Tee		
(i)	75mm dia	Each	80.00
(ii)	110mm dia	Each	131.00
(iii)	160 mm dia	Each	143.00
3.18.4	Door Tee		
(i)	75mm dia	Each	124.00
(ii)	110mm dia	Each	149.00
(iii)	160 mm dia	Each	160.00
3.18.5	Door 'Y'		
(i)	75mm dia	Each	131.00
(ii)	110mm dia	Each	161.00
(iii)	160 mm dia	Each	172.00
3.18.6	Double 'Y'		
(i)	75mm dia	Each	136.00
(ii)	110mm dia	Each	217.00
(iii)	160 mm dia	Each	231.00
3.18.7	Double Door 'Y'		
(i)	75mm dia	Each	160.00
(ii)	110mm dia	Each	273.00
(iii)	160 mm dia	Each	285.00
3.18.8	Bend 45		
(i)	75mm dia	Each	56.00
(ii)	110mm dia	Each	89.00
(iii)	160 mm dia	Each	100.00
3.18.9	Bend 87.5		
(i)	75mm dia	Each	68.00
(ii)	110mm dia	Each	112.00
(iii)	160 mm dia	Each	124.00
3.18.10	Door Bend (Top Side)		
(i)	75mm dia	Each	92.00
(ii)	110mm dia	Each	108.00
(iii)	160 mm dia	Each	120.00
3.18.11	Door Bend (Left & Right)		
(i)	75mm dia	Each	111.00
(ii)	110mm dia	Each	136.00
(iii)	160 mm dia	Each	148.00
3.18.12	Vent Cowel		
(i)	75mm dia	Each	30.00
(ii)	110mm dia	Each	39.00
(iii)	160 mm dia	Each	53.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.18.13	Socket plug		
(i)	75mm dia	Each	48.00
(ii)	110mm dia	Each	57.00
(iii)	160 mm dia	Each	71.00
3.18.14	Door Cap		
(i)	75mm dia	Each	31.00
(ii)	110mm dia	Each	43.00
(iii)	160 mm dia	Each	55.00
3.18.15	Pipe Clip		
(i)	75mm dia	Each	17.00
(ii)	110mm dia	Each	25.00
(iii)	160 mm dia	Each	37.00
3.18.16	W.C. connector with lipring 110mm dia	Each	149.00
3.18.17	W.C. connector bent type 110mm dia	Each	156.00
3.18.18	Plain floor trap 110mm dia	Each	161.00
3.18.19	Multi floor trap 110mm dia	Each	186.00
3.18.20	height Raiser 110mm dia	Each	149.00
3.18.21	Top Tile& straine 110mm dia	Each	56.00
3.18.22	Top Tile only 110mm dia	Each	43.00
3.18.23	P- Trap 110mm dia	Each	267.00
3.18.24	Q- Trap 110mm dia	Each	299.00
3.18.25	S- trap 110mm dia	Each	374.00
3.18.26	Ring fitting 110mm dia	Each	75.00
3.18.27	Gully trap 110mm dia	Each	392.00
3.19	Raising manhole cover and frames slab to required level including dismantling existing slab and making good the damage as required (raising depth of manhole masonry to be paid separately).		
3.19.1	Rectangular manhole 90x60 cm	Each	648.00
3.19.2	Rectangular manhole 150x120 cm	Each	991.00
3.20	Construction of <i>manhole</i> in all type of soil inner size 90 X 60 Cm. 300 mm thick masonry in CM 1:6, 10 Cm. thick cement concrete 1:5:10 in foundation, 20 mm thick inside plaster in CM 1:6, finished with floating neat cement, 50mm thick M-15 grade C.C. flooring, making channels, 80mm thick stone slab covering with 40mm thick M-15 grade C.C. flooring, Cement cover with frame of 450mm dia, earthwork etc. complete as per design including disposal of surplus earth within 50 mtr. lead.		
3.20.1	Depth up to 0.5 M	Each	4320.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.20.2	Add extra over item 3.21.1 for every additional 0.10m depth above 0.5 m depth.	Each	162.00
3.21	Construction of Man hole, in all types of soil, inner size 1.5 x 1.2 M, with 450mm thick masonry in CM 1:6, 10 Cm. thick cement concrete 1:5:10 in foundation, 20mm thick inside plaster in CM 1:6, finished with floating neat cement, 50 mm thick M-15 grade C.C. flooring making channels, 80 mm thick stone slab covering with 40 mm thick M-15 grade C.C. flooring, Ferro Cement cover with frame of 450mm dia, earthwork etc. complete including disposal of surplus earth within 50 mtr. lead as per design :		
3.21.1	Depth up to 1.5 M	Each	15755.00
3.21.2	Add extra over item 3.22.1 for every additional 0.10m depth above 1.5 m depth .	Each	554.00
3.22	Construction of <i>chamber</i> in all type of soil with 300 mm thick masonry in CM 1:6 m,10 cm thick C.C. 1:5:10 in foundation, 20mm thick insider plaster in Cm 1:6, finished with floating neat cement, 50mm thick M-15 grade C.C. flooring , earthwork etc. complete as per design including disposal of surplus earth within a lead of 50 mtr.		
3.22.1	Inside size 300 X 300 mm depth upto 0.5 M Cement cover with frame.	Each	758.00
3.22.2	-do- size 450 x 450mm depth upto 0.5 M Cement cover with frame	Each	1683.00
3.22.3	-do- size 600 x 450mm depth upto 0.5 M Cement cover with frame.	Each	2380.00
3.22.4	-do- depth upto 0.5 M to 1.0 M –do-	Each	2618.00
3.23	Construction of soakage well in all type of soil with 300 mm thick dry masonry, top and bottom 300 mm course in CM 1:6, 80mm thick stone slab, jointing of slab in CM 1 : 3, Ralthal, Kharanja, 40 mm thick M-15 grade C.C flooring , earthwork complete as per approved drawing including disposal of earth within a lead of 50 mtr.:		
3.23.1	Size 300 Cm. dia outside & 300 Cm. depth .	Each	18997.00
3.23.2	-do- & 240 Cm. Depth.	Each	17424.00
3.23.3	Size 240 Cm. dia outside & 240 Cm. depth.	Each	12672.00
3.24	Construction of soakage Trench in all types of soil with 300 mm thick dry stone masonry, 80 mm thick stone slab covering, jointing of slab in CM 1:3 Ralthal, Kharanja, 40 mm thick M-15 grade C.C. flooring earthwork etc. complete as per approved drawing including disposal of earth within a lead of 50 Mtr.:		
3.24.1	Top width 180Cm., bottom width 90Cm. & depth 240Cm.	Mtr.	4840.00
3.24.2	-do- 240 Cm., -do- 150Cm. & depth 300 Cm	Mtr.	8184.00
3.25	Construction of Soakage well in all types of soil of approved drawing, top 90 Cm .Portion in 450mm thick masonry with CM 1:6, 80 mm thick stone slab covering, jointing of slab in CM 1:3 ,Ralthal, kharanja 40mm thick M-15 grade C.C flooring, earth work etc . complete including disposal of surplus earth within a lead of 50 mtr .		
3.25.1	Inner dia 90 Cm & 10 to 12 Mtr deep.	Each	3795.00
3.25.2	Inner dia 60 Cm & 10 to 12 Mtr deep.	Each	3575.00
3.26	Labour charges for construction of Soakage well of 90 Cm. dia (Earth –work & its disposal ,with in a lead of 0.5 Km .only).	Mtr	69.00
3.27	Add extra if Soakage Well is filled with dry stones.	Cum	277.00
3.28	Construction of septic Tank in all types of soil with 40 Cm .thick masonry in CM 1:6, 15 Cm thick C.C bed of 1:5:10, M-15 grade C.C flooring & over stone slab covering ,80 mm thick slab jointing of slab in CM 1:3. Ralthal, Kharanja, 50 mm thick stone partition walls, 20 mm thick plaster in CM 1:6 finished with neat floating cement, 4 Nos C.I foot rests of approved design ,two No. 450 mm dia each Ferro cement cover with frame, earth work etc. complete as per approved drawing including disposal of surplus earth within a lead of 50 mtr:-		
3.28.1	Size 200x100x130 cm.(for 10 users)	Each	20570.00
3.28.2	Size 230 x110 x150 cm.(for 20 users)	Each	28985.00
3.28.3	Size 400 x140x150 cm.(for 50 users)	Each	45067.00
Note :-	Add or subtract proportionately for every 0.5 M increase or decrease in Length -12.5% Breadth & Depth -18 % each		
3.29	Emptying of Septic tank ,Soakage well etc. by disposing or sludge upto 5 Km. lead & taking out sewage including cleaning of site.	Cum	248.00
3.30	Add extra if R.C.C slab of designed thickness & reinforcement is provided on manhole in place of stone slab(Actual area of R.C.C slab to be measured).	Sqm	186.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.31	P & F M.S. Foot Rests in with C.M.,1:3, standard design in 20mm square M.S. bar 50 mm embedded in wall & 10 cms. projected out complete.	Each	194.00
3.32	Supplying and fixing C.I. Cover with frame, C.I. gratings for chambers & man holes.	Kg.	43.00
3.33	Supplying and fixing Ferro- cement cover with C.I. frame for chambers & man holes of size.		
3.33.1	450mm dia, 5Kg. C.I. frame to with stand 3 MT center point load & minimum unfractured load of 1 MT. (Light duty).	Each	1067.00
3.33.2	500mm dia 12 Kg.-do-15 MT centre point load (medium duty).	Each	1958.00
3.33.3	500mm dia 22 Kg.-do-22 MT centre point load (Heavy duty).	Each	3075.00
3.33.4	500mm dia 25 Kg.-do-70 MT centre point load seal type (Heavy duty.)	Each	3212.00
3.33.5	Rectangular shape 600 x 450 mm, to withstand 3 MT center point load & minimum unfractured load of 1 MT. (Light duty).	Each	1122.00
3.34	Supplying & Fixing R.C.C. Manholes covers with frame of approved make (Light duty).		
3.34.1	Size 500mm dia (Double seal)	Each	228.00
3.34.2	Size 450mm dia	Each	202.00
3.34.3	Size 400mm dia	Each	152.00
3.34.4	Size 600 X 600mm (Double seal)	Each	348.00
3.34.5	Size 600 X 450mm	Each	292.00
3.34.6	Size 450 X 450mm	Each	221.00
3.34.7	Size 300 X 300mm	Each	69.00
3.34.8	Size 250 X 250mm	Each	57.00
3.34.9	Size 180 X 180mm	Each	51.00
3.35	Construction of Open Surface Drain with 112mm thick brick masonry in CM 1:4,110mm thick base concrete 1:5:10, 37mm thick M-15 grade C.C. flooring ,12mm 1:4 cement plaster on all exposed faces of walls including top surface excavation & disposal of earth complete as per approved design/drawing:		
3.35.1	112mm drain,225mm Av. depth	Mtr.	235.00
3.35.2	150mm drain,225mm Av. depth	Mtr.	246.00
3.35.3	250mm drain,300mm Av. depth	Mtr.	329.00
3.36	Construction of open Drain with 112mm thick brick masonry in CM 1:4 Semi circular S.W. glazed channel (confirming to IS Standards) fixed with cement mortar 1:1 over a bed of 100mm thick C.C. 1:5:10, filling of edged with M-15 grade C.C. flooring, 12mm cement plaster 1:4, over all exposed faces, excavation & disposal of earth with in a lead of 50 mtr complete as per approved drawings :		
3.36.1	112 mm drain,225mm Av. depth width 10 Cm S.W. glazed channel.	Mtr	377.00
3.36.2	150 mm drain,225mm Av. depth width 15 Cm S.W. glazed channel.	Mtr.	435.00
3.36.3	250 mm drain,225mm Av. depth width 250 Cm S.W. glazed channel.	Mtr.	759.00
3.37	Extra For additional 5 Cm. Average depth of drain of all sizes.	Mtr.	32.00
3.38	P & F precast dense cement concrete (Vibro-pressed) drain section Block of different size as per approved drawing and design and strength as per IS code 2185 part I of grade 'D' (5.00mm ²) proper quality of additive/admixture like plasticizer etc. added to produce high quality and durable drain section Blocks of 'L' shape 'U' shape etc. as per approved design and drawing complete with fixing and joining in C.M.1:4 in proper grade and level complete in all respect including earth work and disposal of surplus earth within 0.5 Km. lead. (cost of Steel/ welded mesh etc. shall be paid extra).		
3.38.1	40mm thick	Sqm.	380.00
3.38.2	Upto 60mm thick	Sqm.	471.00
3.38.3	Upto 80mm thick	Sqm.	576.00
3.39	Construction of Cement Concrete Chamber 125mm dia.		
3.39.1	C.P. Brass grating	Each	121.00
3.39.2	C.P. Brass doom grating	Each	128.00
3.39.3	C.I. Grating	Each	110.00
3.39.4	Stainless Steel Sheet Grating	Each	123.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.40	Construction of Cement Concrete Chamber 125mm dia on depressed floor upto 45cm height from floor with :		
3.40.1	C.P. Brass grating	Each	171.00
3.40.2	C.P. doom grating	Each	190.00
3.40.3	C.I. Grating	Each	158.00
3.40.4	Stainless Steel Sheet Grating	Each	171.00
SPUN-CENTRIFUGALLY CAST IRON SOIL WATER PIPES:-			
3.41	Providing & fixing Spun –Centrifugally cast Iron Pipes (IS : 3989 Mark) of Approved make in wall or in floor with M.S. Holder bat clamps in 10 X 10 X10 Cm. M-15 Grade concrete blocks, joints filled with CM 1:4 with spun yarn including cutting holes and making good the wall:-		
3.41.1	75 mm dia	Mtr	939.00
3.41.2	100 mm dia	Mtr	1125.00
3.41.3	150 mm dia	Mtr	1893.00
3.42	Providing & fixing Spun –Centrifugally cast Iron Pipes fitting (IS : 3989 Mark) in CM 1:4 with spun Yarn.		
3.42.1	75mm w/o door		
(i)	Offset	Each	468.00
(ii)	Socket	Each	285.00
(iii)	D/Door Y-Tee	Each	682.00
(iv)	Bend	Each	372.00
(v)	Door Cross	Each	935.00
(vi)	Cowel	Each	340.00
(vii)	Tee	Each	528.00
3.42.2	100 mm –do-		
(i)	Offset	Each	637.00
(ii)	Socket	Each	409.00
(iii)	D/Door Y-Tee	Each	900.00
(iv)	Bend	Each	516.00
(v)	Door Cross	Each	1001.00
(vi)	Cowel	Each	424.00
(vii)	Tee	Each	705.00
3.42.3	150 mm –do-		
(i)	Socket	Each	823.00
(ii)	D/Door Y-Tee	Each	2069.00
(iii)	Bend	Each	1035.00
(iv)	Door Cross	Each	1897.00
(v)	Cowel	Each	850.00
(vi)	Tee	Each	1546.00
3.42.4	75mm with door		
(i)	Bend	Each	435.00
(ii)	Door Cross	Each	612.00
(iii)	Tee	Each	596.00
3.42.5	100mm with door		
(i)	Bend	Each	574.00
(ii)	Door Cross	Each	1043.00
(iii)	Tee	Each	817.00
3.42.6	150mm with door		
(i)	Bend	Each	1188.00
(ii)	Door Cross	Each	2353.00
(iii)	Tee	Each	1703.00
3.43	Providing and Fixing Spun –Cast Iron floor trap (Nahani) of (IS :3989 Mark) approved quality / make with socket down or hinged grating including cutting and making good the floor :-		
3.43.1	Size 100 x 100 mm	Each	787.00
3.43.2	Size 100 x 75 mm	Each	646.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
3.44	Add 10% extra Over Item No. 3.41 if the pipes are laid under suspended condition under the roof.		
UPVC SOIL WASTE & RAIN WATER (SWR) PIPES			
3.45	Providing and Fixing Unplasticized Poly Vinyl Chloride (UPVC) SWR Pipes Type B for sciland waste discharge system (IS:13592 : 1992 Marked) of approved quality /make		
3.45.1	75 mm dia	Mtr.	121.00
3.45.2	110 mm dia	Mtr.	242.00
3.46	Providing and Fixing Unplasticized Poly Vinyl Chloride (UPVC) SWR Pipes fittings type B for sciland waste discharge system (IS:13592 : 1992 Marked) of approved quality /make		
3.46.1	Coupler		
(i)	75mm dia	Each	50.00
(ii)	110mm dia	Each	75.00
3.46.2	Repair Coupler		
(i)	75mm dia	Each	53.00
(ii)	110mm dia	Each	86.00
3.46.3	Single Push Fit Coupler		
(i)	75mm dia	Each	51.00
(ii)	110mm dia	Each	88.00
3.46.4	Bend 87.5 Dg.		
(i)	75mm dia	Each	65.00
(ii)	110mm dia	Each	108.00
3.46.5	Bend 45 Dg.		
(i)	75mm dia	Each	55.00
(ii)	110mm dia	Each	92.00
3.46.6	Door Bend 87.5 Dg.		
(i)	75mm dia	Each	86.00
(ii)	110mm dia	Each	134.00
3.46.7	Single 'Y'		
(i)	75mm dia	Each	100.00
(ii)	110mm dia	Each	193.00
3.46.8	Single 'Y' with Door		
(i)	75mm dia	Each	130.00
(ii)	110mm dia	Each	241.00
3.46.9	Double 'Y'		
(i)	75mm dia	Each	136.00
(ii)	110mm dia	Each	245.00
3.46.10	Double 'Y' with Door		
(i)	75mm dia	Each	207.00
(ii)	110mm dia	Each	317.00
3.46.11	Socket Plug		
(i)	75mm dia	Each	43.00
(ii)	110mm dia	Each	53.00
3.46.12	Pipe Clip		
(i)	75mm dia	Each	13.00
(ii)	110mm dia	Each	21.00
3.46.13	Double tee with Door		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
(i)	75mm dia	Each	232.00
(ii)	110mm dia	Each	397.00
3.46.14	W.C. Connector 110mm dia	Each	150.00
3.46.15	W.C. Connector (Bend) with ring 110mm dia	Each	157.00
3.46.16	Single Tee		
(i)	75mm dia	Each	83.00
(ii)	110mm dia	Each	146.00
3.46.17	Single Tee with Door		
(i)	75mm dia	Each	95.00
(ii)	110mm dia	Each	168.00
3.46.18	Double Tee (4 Ways)		
(i)	75mm dia	Each	147.00
(ii)	110mm dia	Each	255.00
3.46.19	Multi floor trap 110mm dia	Each	167.00
3.46.20	Offset 110mm dia	Each	196.00
3.46.21	Extra Square Jali 110mm dia	Each	26.00
3.46.22	Extra Round Jali 110mm dia	Each	19.00
3.46.23	Extra 4 SWR Ring		
(i)	75mm dia	Each	10.00
(ii)	110mm dia	Each	12.00
3.46.24	Gully Trap 110mm dia	Each	475.00
3.46.25	Nahni Trap with Jali 4" 110mm dia	Each	119.00
3.46.26	Nahni Trap without Jali 4" 110mm dia	Each	105.00
3.46.27	Nahni Trap with Jali 3" 75 mm dia	Each	106.00
3.46.28	Nahni Trap without Jali 3" 75 mm dia	Each	94.00
3.46.29	Vent Cowel 75 mm	Each	34.00
3.46.30	Vent Cowel 110mm dia	Each	41.00
3.47	Providing & fixing Spun –Centrifugally cast Iron Pipes fitting (IS : 3989 Mark) in CM 1:4 with spun Yarn 100mm w/o door as per direction of Engineer-in-Charge.		
(a)	P Trap of standard size	Each	851.00
(b)	Long P Trap (900mm)	Each	2450.00
(c)	Long P Bend	Each	839.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
(d)	Long Floor Trap (600mm)	Each	1505.00
3.48	Removing & Re fixing of S.C.I. Pipe and Spun Pipe with C.I.clip as per direction of Engineer-in-Charge of following diameters :-		
(a)	100mm dia	Each	165.00
(b)	150mm dia	Each	132.00
3.49	Cleaning of sewer line of various sizes as per requirement at site of different sizes including 100mm,150mm & 225mm dia of Stoneware pipe as per direction of Engineer-in-Charge.	Rmt	88.00
3.50	Cleaning of C.I. Pipe Line of various size as per requirement at site of different sizes including 100mm,150mm & 225mm dia of C.I.Pipes as per direction of Engineer-in-Charge.	Rmt	55.00
3.51	Repairing of Cement Concrete Chambers of different size as per requirement at site and as per direction of Engineer-in-charge.	Each	55.00

CHAPTER : S-4 TUBE WELL

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
4.1	Construction of tube-well from ground level and upto 100 Meter depth and above sizes in all types of soils in alluvium strata by "bailing" method and without gravel packing as per IS: 2800 (Part - I& II) 1979 specifications (The work includes formation of cavity well at bottom by development with appropriate air compressor or bailer pumping and also lowering of casing pipe but excluding cost of the casing pipe. The tube-well should have a throughout bore as per nominal bore of casing pipe. The work would be completed after obtaining sand free water.)		
4.1.1	100 mm dia Nominal bore.	R Mtr.	254.00
4.1.2	125mm-do-	R Mtr.	290.00
4.1.3	150mm-do-	R Mtr.	315.00
4.2	Construction of Tube-well upto 100 Meter depth and above in all type of rocks by DTH system and over burden, to accommodate casing pipe of following sizes in all types of soils and over burden including lowering of casing pipes, but excluding cost of casing pipes as per IS : 2800 (Part I & II) 1979 specifications. The work would be completed after obtaining sand free water. The tube well should have a throughout bore as per nominal dia of casing pipe:		
4.2.1	100 mm dia Nominal bore.	R.Mtr.	345.00
4.2.2	125mm-do-	R.Mtr.	363.00
4.2.3	150mm-do-	R.Mtr.	605.00
4.2.4	200 mm -do-	R.Mtr.	908.00
4.3	Construction of <i>tube-well</i> from ground levels and upto 100 Meter depth and above to accommodate housing and assembly pipe of following sizes in all types of alluvium strata by percussive/ rotary drilling method and with gravel as per IS:4097-1967 and packing as per IS:2800 (Part I -& II) 1979 as amended upto date (the work includes the cost of gravel & its primary packing and packing during development, lowering of housing & strainer assembly pipes, with supply and wrapping of coir-rope, wherever necessary, for arresting fine sand particles. The work will not include cost of housing pipe and strainer pipe assembly and development work, but work would be completed after obtaining sand free water).		
4.3.1	150 mm Nominal bore.	R Mtr.	968.00
4.3.2	200mm -do-	R Mtr.	1331.00
4.3.3	250mm -do-	R Mtr.	1694.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
4.4	Development of tube well as per IS specification using suitable compressor to give sand free water for required yield of the gravel packed tube well.	Hr.	545.00
4.5	Supply of <i>ERW M.S. black casing pipe</i> ISI marked (IS:4270/1992) of grade Fe410 of following sizes at site of work. Nominal bore of pipe (mm)		
4.5.1	100	Mtr.	752.00
4.5.2	125	Mtr.	930.00
4.5.3	150	Mtr.	1113.00
4.5.4	200	Mtr.	1571.00
4.5.5	250	Mtr.	2567.00
4.6	Supply of <i>strainer pipes</i> made of ERW M.S. black pipe ISI mark of following sizes at the site of work including required size of slotting as per IS:8110-1985.		
4.6.1	150 mm Nominal Bore.	Mtr.	1388.00
4.6.2	200mm-do-.	Mtr.	1846.00
4.6.3	250mm-do-.	Mtr.	2842.00
4.7	Testing verticality of tube-well by plumbing system and yield test and draw down test by pumping system as per IS: 2800 (Part II) 1979.	Each	7623.00
4.8	S & F <i>tube well</i> cover of M.S.sheet (6mm thick) with nuts and bolts complete for casing size:		
4.8.1	100mm dia	Each	169.00
4.8.2	125mm dia	Each	206.00
4.8.3	150mm dia	Each	254.00
4.8.4	200mm dia	Each	339.00
4.8.5	250mm dia	Each	363.00
4.9	S & F M.S. <i>clamp</i> , set of 50 ×6mm flat iron with nuts and bolts etc. for holding the riser pipe assembly of submersible pump set.	Each	242.00
4.10	Supply of 50mm dia G.I. medium class pipe(each length 5.8 m to 6.0m) tripod as per drawing and design with chain pulley of. 3MT capacity	Each	10890.00
4.11	Installation of submersible motor pump set in Tube-well/open well complete (labour charges only) including transportation of tripod, chain pulley block & any other material required for lowering purpose.	Each	3388.00
4.12	P & F 60 cm. wide <i>M.S. ladder</i> in open well made of flat iron 32×5mm and 10mm dia bars @ 200mm c/c with angle iron hold fasts at suitable interval complete as per drawing.	Mtr.	206.00
4.13	Installation of India mark <i>II hand pump</i> set, complete on existing plate form.	Each	847.00
4.14	Construction of 185 cm. dia platform as per approved design and drawing of UNICEF.	Each	2662.00
4.15	Supplying of India mark <i>II hand pump</i> set complete marked with cylinder and ten connecting rods etc. IS 1239	Each	7865.00
4.16	Supplying and installation of 32 mm dia <i>G.I. pipe</i> medium class IS 1239 marked in 3m length including all accessories and fittings required for installation of hand pump.	Mtr.	303.00
4.17	Supplying and installation of <i>submersible pumping motor pump sets</i> I.S.I. Marked (IS : 8034-1989) of approved make like K.S.B., KIRLOSKAR, Calama etc. or equivalent, making connection suitable for T.W./D.C.B./Open well. The job includes screwing and welding of flanges on G.I. riser pipes, installation of complete fitting and accessories, with riser pipes, jointing of electrical cables and other connections making switch board electrical connections, all labour for testing of submersible pump set and supply of water to water mains, complete in all respect (Refer Electrical BSR)		

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
4.18	For item of earthing refer to Electrical BSR .		
4.19	For item of submersible cable refer to Electrical BSR.		
4.20	for Item of panel board refer to Electrical BSR		
4.21	Providing & lowering of G.I. Pipes, flange pipe including rubber washer and nuts of 8 mm dia complete in all respect I.S.1239 Marked.		
4.21.1	B Class 50 mm dia	R. Mtr.	453.00
4.21.2	B Class 80 mm dia	R. Mtr.	655.00
4.21.3	B Class 100 mm dia	R. Mtr.	865.00
4.22	Un-lowering of submersible pump set with all piping from a tube-well/ open-well complete (labour charge only) including transportation of tripod, chain, pulley-block and other materials required and lowering of repaired/ new pump in the tube-well / open-well complete in all respect.	Each Job	4235.00
RAIN WATER HARVESTING			
4.23	Construction of tubewell up to 100m depth and above to accomodate housing and assembly pipe in all types of alluvium strata by rotay drilling method with "code of practice for construction and testing of tubewells (IS:2800 (Part-II) : 1991 and IS:2800 (Part-II) :1979 both amended up to date) with supply of bail plug if necessary.The work will not include cost of housing pipe and strainer pipe assembly cost, gravel and development work. Work would be deemed completed only after obtaining sound free water during pumping.		
4.23.1	150 mm nominal bore	Rm	726.00
4.23.2	200 mm nominal bore	Rm	1089.00
4.23.3	250 mm nominal bore	Rm	1452.00
4.24	Construction of Recharge Shaft in filter pit including Earth work Excavation , lifting excavated earth with all lift and 50 m lead and centering & shuttering evenever required.		
4.24.1	Diameter 900 mm	Rm	242.00
4.24.2	Diameter 750 mm	Rm	212.00
4.25	Supply & fixing Pre-cast RCC Rinngs at the mouth of recharge shaft of M20 mix with 40 mm thickness		
4.25.1	Diameter 900 mm	Rm	696.00
4.25.2	Diameter 750 mm	Rm	605.00
4.26	Supply & lowering air line of 25mm dia, G.I. pipe 'B' class having perforation 3 to 5mm size all arrow of G.I. pipe in Zig-Zag fashion & making air vent at top including the cost of Tee-Nipples, Elbow, Socket etc.	Rm	273.00
4.27	Supply and lowering vent air pipe 63mm dia rigid PVC pipe(IS 4985) mark class II (4kg per cm2) with required all necessary fittings including perforation of 3 to 5 mm size all around the pipe at a distance of 180 to 220mm in zig zag fashion and making air vent at top complete as per direction of Engineer incharge.	Rm	140.00
4.28	Supply & lying River-gravels of following sizes in recharge shaft, filter pit after screening & washing from kachha shift without deduction of voids		
4.28.1	Size 9 to 12 mm	Cum	1815.00
4.28.2	Size 3 to 5 mm	Cum	2662.00
4.29	Supply & laying of clean, clear sharp river sand of size 1 to 2mm coarse, without deduction of voids.	Cum	3388.00

**CHAPTER H-1
SUPPLY OF MANURE, INSCITICIDES, PLANTS, POTS, T & P ETC.**

Note : The rates are inclusive of all taxes etc. and for estimation purpose only.

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
Chapter Code No.	Description	Unit	Rate (Rs.)
1.1	Supply of dry manure including loading unloading, transportation & stacking at site.		
1.1.1	Fram yard manure (organic).	Cum.	600.00
1.1.2	Compost	Cum.	800.00
1.1.3	Goat dungmanure.	Cum.	1000.00
1.2	Supply of Chemical Fertilizers at store in bags weighing not less than 50 kg. each including loading unloading & transportation etc.		
1.2.1	Urea	Per 50 kg.Bag	350.00
1.2.2	D.A.P.	Per 50 kg.Bag	1480.00
1.2.3	Super Phosphate.	Per 50 kg.Bag	300.00
1.2.4	Murrate of Photash.	Per 50 kg.Bag	450.00
1.2.5	Straw meal.	Per 50 kg.Bag	900.00
1.3	Supply & Stacking good earth at site complete including loading unloading & transportation etc.	Cum.	200.00
1.4	Supply of Insecticides & Pesticides at store in dust / liquid form complete.		
1.4.1	Methyl Prathion 2%.	Per 25 kg. Bag	500.00
1.4.2	Karathion (Liquid).	Per 250 ml.	500.00
1.4.3	Metacid (Liquid).	Per Liter	370.00
1.4.4	Roger (Liquid).	Per Liter	280.00
1.4.5	Cholorophyriphos 20 Ec.	Per Liter	400.00
1.4.6	Bauiston 50 %.	Per 100 Grms.	100.00
1.5	Supply of Graden Tools & Implements at store complete :		
1.5.1	Spade weighing 1.5 kg. with Handle.	Each	150.00
1.5.2	Khurpa weighing 500 gm with Handle.	Each	75.00
1.5.3	Gurvana weighing 800 gm. with Handle.	Each	90.00
1.5.4	Hedge Shear (kamani Steel)	Each	600.00
1.5.5	Secaetur	Each	300.00
1.5.6	Garden Rack with Handle.	Each	160.00
1.5.7	Pick - Axe.	Each	150.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.6	Supply of different sized pots at site store including loading unloading & transportation etc. Complete :		
1.6.1	Cement pot 300 mm size	Each	125.00
1.6.2	Cement pot 350 mm size	Each	180.00
1.6.3	Asbestos pot 350 mm size	Each	100.00
1.7	Supply of different sized earthen pots at site/ store including loading unloading & transportation etc complete :		
1.7.1	Earthen pot 150 mm size.	Each	15.00
1.7.2	Earthen pot 225 mm size.	Each	25.00
1.7.3.	Earthen pot 300 mm size.	Each	36.00
1.8	Supply of different sized lawn mower including transportation etc. as store complete :		
1.8.1	300 mm Size Hand Lawn Mower.	Each	3600.00
1.8.2	350 mm Size Hand Lawn Mower.	Each	4000.00
1.8.3	450 mm Size Hand Lawn Mower.	Each	4700.00
1.8.4	500 mm Size Hand Lawn Mower.	Each	6400.00
1.8.5	600 mm Size Hand Lawn Mower.	Each	8500.00
1.9	Supply of different size Tokaras / Tokaris etc. at store complete :		
1.9.1	Big Size (600 mm dia)	Each	125.00
1.9.2	Small Size (450 mm dia)	Each	75.00
1.10	Supply of P.V.C. hose pipe of different sizes at store including transportation etc complete :		
1.10.1	50 mm dia.	R.Mtr.	150.00
1.10.2	38 mm dia.	R.Mtr.	130.00
1.10.3	25 mm dia.	R.Mtr.	75.00
1.10.4	17 mm dia.	R.Mtr.	60.00
1.10.5	12.5 mm dia.	R.Mtr.	45.00
1.11	Supply of different H.P. Motor pumps / submersible pumps / multistaged pumps at store including transportation etc. complete :		
1.11.1	Motor pumps 5 H.P. ISI marked.	Each	12000.00
1.11.2.	Motor pumps 7.5 H.P. ISI marked.	Each	14000.00
1.11.3.	Motor pumps 10 H.P. ISI marked.	Each	18000.00
1.11.4.	Submersible pumps 3 H.P. ISI marked KSB.	Each	21000.00
1.11.5.	Submersible pumps 5 H.P. ISI marked KSB.	Each	24000.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.11.6.	Submersible pumps 10 H.P. ISI marked KSB.	Each	33000.00
1.12	Supply of different varieties of tree / shrubs / climbers according to height and age of the plant at site including loading/ unloading & transportation etc. complete :		
1.12.1	Different flowering plants 900 mm to 1500 mm.	Each	50.00 to 150.00
1.12.2	Different varieties of shrubs 600 mm to 900 mm.	Each	25.00 to 160.00
1.12.3	Different varieties of climbers 900 mm to 1500 mm.	Each	40.00 to 120.00
1.13	Supply of different varieties of Bougainvillea in poly bags / earthen pots according to height growth & age of plant at site including loading, unloading & transportation etc. complete :		
1.13.1	Local variety of Bougainvillea 600 mm to 900 mm.	Each	25.00 to 60.00
1.13.2	Different varieties of Bougainvillea 600 mm to 900 mm.	Each	50.00 to 100.00
1.14	Supply of different varieties of Rose plants in polyethylene bags / earthen pots according to height, growth & age of the plant at site including loading, unloading & transportation etc. complete :		
1.14.1	Desi Rose / Root stock Plants / Ganganagri.	Each	40.00 to 50.00
1.14.2	Different varieties of Grafted Rose Plant.	Each	70.00 to 85.00
1.15	Supply of different varieties of palms in polyethylene bags / earthen pots according to height, growth & age of the plant at site including loading, unloading & transportation etc. complete :	Each	100.00 to 500.00
1.16	Supply of different varieties of palms indoor plants in polyethylene bags / earthen pots according to height, growth & age of the plant at site including loading, unloading & transportation etc. complete :		
1.16.1	Desi Crotons.	Each	50.00 to 60.00
1.16.2	Selective Varieties of Crotons.	Each	70.00 to 150.00
1.16.3	Rubber plants etc.	Each	100.00 to 125.00
1.16.4	Daffen Bachia.	Each	100.00 to 250.00
1.16.5	Arecca Palm.	Each	200.00 to 600.00
1.16.6	Song of India.	Each	100.00 to 200.00
1.16.7	Aglonmia	Each	100.00 to 150.00
1.16.8	Drassina	Each	100.00 to 200.00
1.16.9	Singonium with Moss stick.	Each	125.00 to 250.00
1.16.10	Miscellaneous.	Each	150.00 to 400.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
1.16.11	Cycussevelta (50mm-75mm dia)	Each	1200.00
1.16.12	Furcaria Gignita (50mm-75mm dia)	Each	1000.00
1.16.13	Different Fycus Plants Tolairy (100cm-125cm Height)	Each	800-1000
1.16.14	Different Champa (125cm-215cm Height)	Each	400-900

**CHAPTER H-2
MAINTENANCE OF GRADENS**

Note : The rates are inclusive of all taxes etc. and for estimation purpose only.

Chapter Code No.	Description	Unit	Rate (Rs.)
2.1	Maintenance of Lawns :		
2.1.1	Spreading of manure and good earth in required thickness (cost of manure and good earth to be paid separately).	Cum.	20.00
2.1.2	Irrigation of Lawns	Per Hect. Per day	1200.00
2.1.3	Uprooting weeds from the lawn plots and treched area after 10 to 15 days of its flooding with including disposal of uprooted vegetation.	100 Sqm.	200.00
2.1.4	Mowing manually / with power machines.		
(a)	Manually.	Per Hect.	1300.00
(b)	With power machines.	Per Hect.	1000.00
2.1.5	Maintenance of shrubbarry or Hedge cutting including disposal of rubbish with all leads & lifts.	100 Sqm.	400.00
2.1.6	Sweeping / Cleaning of Garden roads. Lawns & paths & disposal of all rubbish.	Per 100 Sqm	3.00
2.1.7	Security of the Garden per gate for 24 hours in 3 shift with the Exilitary persons.	Per day (24 Hours)	16200.00
2.1.8	Maintenance / fitting of permanent ornamental pots / seasonal plots.		
(a)	Mixing earth and manure inproportion as specified or directed for pots.	Cum.	35.00
(b)	Filling and planting of sapplings and Watering of plots.	Per 100 Pots Per day.	150.00
(c)	Weding Hoeing Stacking & Colouring of pots. material will be supplied by the Department.	Per 100 Pots Per day.	150.00
2.1.9	Preparation of beds for bedging and shrubbarry by excavating 60 cms. deep and trenching the excavated base to a further depth of 30 cms. refilling the excavated earth after breaking clods & mixing with manure in the ratio 8 :1 (8 parts of stacked volume o	Each	20.00
2.2	Digging pits in ordinary soil & refilling the same with the excavated earth mixed with manure in the ratio of 2: 1 by valume (2 parts of stacked valume of earth after reduction by 20% 1 parts of stacked volume of manure after reduction by 8%) flooding wit	Each	20.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
2.3	Planting of annual sapplings watering in the bed.	Sqm.	2.00
2.4	Watering of Grup plantation at the bed.	Sqm.	0.25
2.5	Prefaration of Eding cutting lawn.	Sqm.	0.60
2.6	Group plantation in the bed specified place.	Sqm.	2.00

CHAPTER H-3 DEVELOPMENT OF GRADENS

Note : The rates are inclusive of all taxes etc. and for estimation purpose only.

Chapter Code No.	Description	Unit	Rate (Rs.)
3.1	Laying of lawns including ploughing levelling breaking of clods manuring & removal of stones etc.(Cost of manure or extra good earth to be paid seperately) Maintenance of lawns for 30 days or more till the grass forms a thick lawns free from weeds & fit for moving in the duration of planting if lawn die some where the contractor will replant it at his own cost.		
3.1.1	In rows 15 Cms. apart in either direction	100 Sqm.	2500.00
3.1.2	In rows 7.5 Cms. apart in either direction	100 Sqm.	4600.00
3.1.3	In rows 5 Cms. apart in either direction	100 Sqm.	5500.00
3.2	Renovating lawns including weeding cheeling the grass forking the ground top dressing with manure. Mixing the same with forked soil watering maintaing the lawns for 30 days or more till grass forms a thick lawns free from weeds & fit for mowing & disposa	100 Sqm.	4400.00
3.3	Planting of trees / Shurbs / hedge & climbers plants at desired distance in a row & watering.	100 Plants.	25.00
3.4	Preparation of different sized beds as directed.	100 Sqm.	380.00

CHAPTER H-4 MAINTENANCE OF RODS SIDE PLANTATION

Note : The rates are inclusive of all taxes etc. and for estimation purpose only.

Chapter Code No.	Description	Unit	Rate (Rs.)
1			
(a)	Preparation of soil including cleaning & removing of unwanted shurbs removal of stones & garbage.	Per 100 Sqm.	125.00
(b)	Digging of pits size 60x60x60 cms. Including removal of stones. Manuring applicable of insecticides & watering atleast 15 litre per plant after planting.	Per Pit.	25.00
(c)	Loading & unloading of plants from Deptt. Nursery to site perkm.	Per 1000 Plants.	125.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
(d)	Preparation of Thavala sizing 60 cms. Diametre & 10 cms. Deep once in a month.	Per Thawala .	1.00
(e)	Inter cultural operations hoeing & weeding etc. in 90 cms. Dia & 15 cms. Deep.	Per Plants.	1.75
(f)	Watering of plants with the own tanker i.e. at least 20 literwater for plant at one time.	Per Plants.	1.20
(g)	Transportation of tree guards from Depot to the plantation site including loading & unloading.	Per Tree Guard	15.00
(h)	Security of plants & fencing etc.	Per Plant	0.75
(i)	Pruning & trumming and cutting of old big trees on the road side The contractor will deposit the cut wood in the Deptt.	Per Month Per Tree	100.00
2	Maintenance of plants by the contractor including of pits/bids watering preparation of Thavala Hoeing weeding etc. & application of insecticides etc. & security if the plant die during maintenance contractor has to replace same height plant at his own cost.	Per Plant Per Month	15.00

CHAPTER H-5

DETAIL OF PLANTATIONS AND MAINTENANCE OF PLANTS ON ROAD SIDE FOR FIVE YEARS

Note : The rates are inclusive of all taxes etc. and for estimation purpose only.

Chapter Code No.	Description	Unit	Rate (Rs.)
5.1	Supply & Planting of shady plants (Neem, Peepal, Goolar, Jamun, Imli or other specified) along road side including the following activities :- 1. Preparation of soil including cleaning & removing of unwanted shrubs removal of stones & garbage. 2. Supply of plant at site of two years of age & height more than 1.50 Mtr. 3. Supply of dry manure (Farm yard manure organic) 4. Supply of Insecticides. 5. Digging of pits size 60x60x60 cms. Including removal of stones, Manuring application of insecticides & watering at least 15 liter per plant after planting. 6. Half brick Circular tree guard in second class bricks, internal dia 1.25 meter and height 1.20 meter above ground and 0.20 meter below ground, bottom two courses laid dry and top three courses in cement mortar 1:6 (1 Cement : 6 Sand) and the intermediate courses being in dry honey comb masonry, as per design complete. 7. Watering to plants. 8. Maintenance of plants by the contractor including pits, preparation of Thavala Hoeing weeding etc. & application of insecticides etc. & security. If the plant die during maintenance contractor has to replace same height plant at his own cost.	Per plant	1572.00
5.2	Supply & Planting of ornamental plants (Kachnar, Amaltas, Gulmohar, Arjun, Kala Siris, Jacranda etc. or other specified) along road side including the following activities :- 1. Preparation of soil including cleaning & removing of unwanted shrubs removal of stones & garbage. 2. Supply of plant at site of two years of age & height more than 1.50 Mtr. 3. Supply of dry manure (Farm yard manure organic) 4. Supply of Insecticides. 5. Digging of pits size 60x60x60 cms. Including removal of stones, Manuring application of insecticides & watering at least 15 liter per plant after planting. 6. Half brick Circular tree guard in second class bricks, internal dia 1.25 meter and height 1.20 meter above ground and 0.20 meter below ground, bottom two courses laid dry and top three courses in cement mortar 1:6 (1 Cement : 6 Sand) and the intermediate courses being in dry honey comb masonry, as per design complete. 7. Watering to plants. 8. Maintenance of plants by the contractor including pits, preparation of Thavala Hoeing weeding etc. & application of insecticides etc. & security. If the plant die during maintenance contractor has to replace same height plant at his own cost.	Per plant	1832.00
5.3	Planting & Maintenance of shrubs. Planting of shrubs in central verge 1. Preparation of soil including cleaning & removing of unwanted shrubs removal of stones & garbage. 2. Supply of plant at site like Bouganvillia & Kaner 3. Supply of dry manure (Farm yard manure organic)	Per plant	891.00

Chapter Code No.	Description	Unit	Proposed BSR 2016 Rate (Rs.)
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4. Supply of Insecticides.
5. Digging of pits size 60x60x60 cms. Including removal of stones, Manuring application of insecticides & watering at least 15 liter per plant after planting.
6. Watering to plants.
7. Maintenance of plants by the contractor including pits, preparation of Thavala Hoeing weeding etc. & application of insecticides etc. & security. If the plant die during maintenance contractor has to replace same height plant at his own cost.