



हिमाचल प्रदेश सरकार
GOVERNMENT OF HIMACHAL PRADESH

हिमाचल प्रदेश लोक निमणि विभाग
दर अनुसूची

**HIMACHAL PRADESH PUBLIC WORKS
DEPARTMENT
SCHEDULE OF RATES**

2020

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BASIC RATES

0.1 HIRE CHARGES OF PLANTS & MACHINERY

Note :- These rates are exclusive of contractor's profit and over heads.

Code No.	Description	Unit	Rate ₹
001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	800.00
002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	3000.00
004	Production cost of concrete by batch mix plant	cum	350.00
005	Hire charges of Diesel Truck - 9 tonne	day	2000.00
006	Hire charges of Spraying machine including electric charges	day	250.00
007	Hire charges of Coaltar Sprayer	day	300.00
008	Hire charges of Barber green, drying, mixing and Asphalt Plant, with accessories, capacity 30/45 tonne	day	7700.00
009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	210.00
010	Hire charges of Derrick monkey rope	day	750.00
011	Hire charges of Pump set of capacity 4000 litres/hour	day	700.00
012	Vibrator (Needle type 40 mm)	day	370.00
013	Machine for rubbing of floors	day	300.00
014	Front end loader capacity 1.00 cum	day	6000.00
015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1900.00
016	Mastic Cooker	day	750.00
017	Hire and running charges of tipper	day	1700.00
018	Hire and running charges of loader	day	5000.00
019	Hand Grinder for mirror polish	day	250.00
020	Hydraulic Excavator (3D) with driver and fuel	day	7000.00
021	Pin vibrator	day	325.00
022	Surface Vibrator	day	400.00
023	Hot Bitumen Mixer 0.5 cum i/c hand cart	day	3500.00
024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	30000.00

Code No.	Description	Unit	Rate ₹
025	Hire and running charges of light crane	day	3000.00
026	Hire and running charges of bentonite pump	day	3500.00
027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	30000.00
028	Hire and running charges of crane 20 tonne capacity	day	7000.00
029	Carriage of concrete by transit mixer	km/cum	30.00
030	Generator 250 KVA	day	2500.00
031	Steam curing by using boiler /Heater	cum	500.00
032	Stressing Machine (jack with pump)	day	11500.00
033	Paint applicator	day	750.00
034	Cutting saw machine	day	1350.00
035	Strands Roller machinery for laying strands	day	3500.00
036	Bed master (Pulling strands)	day	3000.00
037	Mobile crane	day	7500.00
038	Tractor with ripper attachment	day	1200.00
039	Tractor with trolley	day	1350.00
040	Air compressor 250 cfm with two leads for pneumatic cutters / hammers	day	1600.00
041	0041 Joint cutting machine with 2-3 blades	day	800.00
042	C.C .batch mix plant	day	10000.00
043	Road sweeper	day	550.00
044	Cost for crane upto 40 tonne capacity	day	8000.00
045	Slip form paver with sensor	day	13000.00
046	Water tanker 5000 litre	day	1200.00
047	Concrete joint cutting machine	day	900.00
048	Texturing machine	day	925.00
049	Dozer D-80-A 12	hour	1500.00
050	Motor Grader 3.35 metre blade	hour	2450.00
051	Hydraulic Excavator of 1 cum bucket	hour	1000.00
052	Front end loader 1 cum bucket capacity	hour	900.00

Code No.	Description	Unit	Rate ₹
053	Tipper-5 Cum tonne	km	3.00
054	Vibratory roller 8 to 10 tonne	hour	600.00
055	Smooth Wheeled Roller 8 to 10 tonne	hour	300.00
056	Tandem Road Roller	hour	1200.00
057	Water Tanker 5 to 6 KL capacity	hour	150.00
058	Air compressor	hour	200.00
059	Wet Mix Plant 60 TPH	hour	800.00
060	Mechanical Broom Hydraulic	hour	360.00
061	Emulsion Pressure Distributor of capacity 1750 sqm per hour	hour	800.00
062	Hot mix Plant -120 TPH capacity	hour	15000.00
063	Hot mix Plant 100 TPH Capacity	hour	13000.00
064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	1500.00
065	Paver finisher Mechanical 100 TPH	hour	800.00
066	Batching and Mixing Plant @ 75 cum per hour	hour	2400.00
067	Cost for crane upto 80 tonne capacity	day	15000.00
068	Concrete Paver finisher with 40 HP Motor and sensor	hour	3000.00
069	Generator 250 KVA	hour	350.00
070	Generator 100 KVA/125 KVA	hour	250.00
071	Truck 5.5 cum/10 tonnes	tonne km	3.00
072	Cost for crane having capacity 50MT	day	8500.00
073	Road sweeper (Mechanical Broom) @ 1250 sqm per hour	hour	350.00
074	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	12000.00
075	Hire and running charges of drill machine up to 400 mm dia (including cost of mobile oil, diesel consumption in ordinary soil and operator)	day	7500.00
076	Pile Integrity testing equipment	day	3000.00
077	Excavation of Diaphragm wall by Mechanical Grab	sqm	1300.00
078	Hire charges of TATA407 or equivalent for local shifting.	day	1200.00
079	Note :- 1. Above hire - charges (from item code 1 to 83) include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery and all the taxes. 2. The hire charges of plant machinery on per day basis are for single shift of eight working hours.		

Code No.	Description	Unit	Rate ₹
080	Hire charges of diesel truck - 9 tonne (without POL)	day	1500.00
081	Using cost of Ultra Violet Radiation tube	Hour	189.00
082	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel	day	4000.00
083	Hire Charges of Suction Jeting machine 2200 PSI machine i/c POL and operator	day	36000.00
084	Hire charges of Drill machine upto 30 mm dia	day	160.00
085	Hire charges of sand blasting equipment	day	160.00
086	Hire charges of compressor	day	420.00
087	Welding charges of shear key to existing reinforcement	each	5.00
088	Hire charges of plant and Machinery that can inject 350 kg/day	day	200.00
089	Hire Charges of Suction Jeting machine 1500 PSI machine i/c POL and operator	day	8000.00

BASIC RATES

0.2 LABOUR

Note :- These rates are exclusive of contractor's profit and over heads and are inclusive of wages for weekly day of rest.

Code No.	Description	Unit	Rate Excluding Paid Holiday ₹	Rate including 1/6th Paid Holiday ₹
0010	Bandhani	day	275.00	320.83
0011	Bhisti	day	275.00	320.83
0012	Blacksmith 1st class	day	408.00	476.00
0013	Blacksmith 2nd class	day	321.00	374.50
0014	Carpenter 1st class	day	408.00	476.00
0015	Carpenter 2nd class	day	321.00	374.50
0016	Chowkidar	day	275.00	320.83
0017	Beldar	day	275.00	320.83
0018	Coolie	day	275.00	320.83
0019	Fitter (grade 1)	day	408.00	476.00
0020	Assistant Fitter or 2nd class Fitter	day	321.00	374.50
0021	Glazier	day	321.00	374.50
0022	Mason (for plaster of paris work) 1st class	day	408.00	476.00
0023	Mason (brick layer) 1st class	day	408.00	476.00
0024	Mason (brick layer) 2nd class	day	321.00	374.50
0025	Mason (for plain stone work) 2nd class	day	321.00	374.50
0026	Mason (for ornamental stone work) 1st class	day	408.00	476.00
0027	Driver (for Road Roller, Concrete Mixer, Truck etc.)	day	336.00	392.00
0028	Mate	day	275.00	320.83
0029	Sewer man	day	275.00	320.83
0030	Mistry	day	408.00	476.00
0031	Painter	day	321.00	374.50
0032	Rock Excavator	day	275.00	320.83
0033	Rock Breaker	day	275.00	320.83

Code No.	Description	Unit	Rate Excluding Paid Holiday ₹	Rate including 1/6th Paid Holiday ₹
0034	Rock Hole Driller	day	275.00	320.83
0035	Stone Chiseller	day	336.00	392.00
0036	Sprayer (for bitumen, tar etc.)	day	275.00	320.83
0037	Skilled Beldar (for floor rubbing etc.)	day	275.00	320.83
0038	White Washer	day	275.00	320.83
0039	Nozzel man/ gun man	day	321.00	374.50
0040	Mason (average)	day	321.00	374.50
0041	Carpenter (average)	day	321.00	374.50
0042	Operator (Pile/ Special machine)	day	336.00	392.00
0043	Skilled torch operator for laying tack	day	321.00	374.50
0044	Technician	day	321.00	374.50
0045	Helper (Technician)	day	275.00	320.83
0046	Labour for fabrication of uPVC extruded casement/ sliding windows and doors including drilling holes, fixing of fittings & hardwares, hire charges of drill machine and electricity charges etc.	sqm	485.00	485.00
0047	Labour for installation of uPVC extruded casement/ sliding windows and doors including scaffolding	sqm	430.00	430.00
0048	Security guard without gun (8 hours shift duty per day)	day	308.00	359.33
0049	Security guard with gun (8 hours shift duty per day)	day	321.00	374.50

***Note:-Rates of labour approved vide Additional Chief Secretary (Finance) to the Govt. of vide letter HP No. FIN-(PR)B(7)-33/2010 dated 24th March, 2020.**

BASIC RATES

0.3 MATERIALS

Note :- These rates are exclusive of contractor's profit and over heads charges, carriage, octroi, excise duty (ED), sales tax (GST) etc.

Code No.	Description	Unit	Rate ₹
222	Seam bolts and nuts 6 mm dia and 25 mm long	10 Nos	10.00
223	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement corrugated sheet 6 mm thick	sqm	225.00
224	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement close fitting adjustable ridge	metre	210.00
225	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement corrugate serrated adjustable ridge	metre	210.00
226	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement plain wing adjustable ridge	metre	210.00
227	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement unserrated adjustable ridge for hips	metre	210.00
228	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement corrugated apron piece	metre	200.00
229	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement eaves filler piece	each	175.00
230	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement north light curves	metre	280.00
231	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement north light curves	each	310.00
232	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement barge boards boards 6 mm thick	metre	400.00
233	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement ridge finial	pair	165.00
234	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement special north light curves	each	555.00
235	Fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement S type louvers	each	260.00
236	Multi purpose fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement board 6 mm thick	sqm	210.00
237	Multi purpose fibre (reinforced by organic fibres and / or inorganic synthetic fibre) cement board 8 mm thick	sqm	220.00
238	6 mm thick heavy duty fiber cement board	sqm	470.00
239	8mm thick heavy duty fiber cement board	sqm	300.00
240	9 mm thick heavy duty fiber cement board	sqm	625.00
241	12.5 mm thick Gypsum plaster board	sqm	170.00
242	6 mm thick multilipurpose cement bonded wood particle board conforming to IS : 14276	sqm	195.00
243	8 mm thick multilipurpose cement bonded wood particle board conforming to IS : 14276	sqm	215.00
244	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwiched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) confirming to IS 14862:2000	sqm	634.00
245	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwiched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) confirming to IS 14862:2000	sqm	789.00

Code No.	Description	Unit	Rate ₹
246	Factory made light weight non asbestos fibre reinforced aerated cement sandwiched wall/roof panel (75mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 5mm thick) confirming to IS 14862:2000	sqm	10.00
247	2mm thick sim pad	each	15.00
248	5mm thick sim pad	each	25.00
285	Brick Aggregate (Single size) : 63 mm nominal size	cum	650.00
286	Brick Aggregate (Single size) : 50 mm nominal size	cum	650.00
287	Brick Aggregate (Single size) : 40 mm nominal size	cum	650.00
291	Stone Aggregate (Single size) : 63 mm nominal size	cum	1000.00
292	Stone Aggregate (Single size) : 50 mm nominal size	cum	1000.00
293	Stone Aggregate (Single size) : 40 mm nominal size	cum	1300.00
294	Stone Aggregate (Single size) : 25 mm nominal size	cum	1350.00
295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1350.00
296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	1350.00
297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1350.00
298	Stone Aggregate (Single size) : 06 mm nominal size	cum	1400.00
302	Safeda ballies 125 mm diameter	metre	40.00
303	Cowdung	cum	50.00
304	Bajri	cum	1000.00
305	Bamboo 25 mm dia 2.5 metre long	score	400.00
308	Bhusa	quintal	500.00
309	Paving bitumen of grade VG-10 of approved quality	tonne	25614.00
310	Bitumen emulsion	tonne	30099.00
312	Bitumen grade PMB - 40	tonne	32200.00
313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	34000.00
314	Bitumen hot sealing compound : grade A	kg	28.00
316	Bitumen solution primer of approved quality	litre	45.00
317	Premoulded joint filler 12 mm thick	sqm	360.00
318	Bitumen felt fibre base (vegetable or animal):As per IS 7193 Grade I	sqm	70.00
319	Bitumen felt as per IS 7193 Grade II	sqm	80.00
322	Bitumen felt :Type 3 grade 1	sqm	70.00
323	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	12.00
324	Coal Tar	litre	30.00
325	Blasting powder	kg	40.00
326	Blasting fuse (fuse wire)	each	15.00
328	White face insulating board: 12 mm thick	sqm	235.00
332	Natural colour insulating board: 12 mm thick	sqm	210.00
336	Flame retardant face insulating board: 12 mm thick	sqm	320.00
339	Flame retardant face insulating, Impregnated fibre board 12 mm thick	sqm	375.00
341	Flat pressed 3 layer particle board (medium density) Grade 1, 12 mm thick	sqm	288.00
346	Extra for veneered particle board with Teak veneering on one side and commercial veneering on other side	sqm	230.00
347	Extra for veneered particle board with Commercial veneering on both sides	sqm	155.00
348	Extra for veneered particle board with Teak veneering on both sides	sqm	500.00
349	Curing compound	litre	38.00
351	Integral crystalline slurry	kg	238.00
352	Integral crystalline admixture	kg	272.00
353	Crystalline mortar	kg	215.00
354	Integral crystalline dry shake	kg	360.00

Code No.	Description	Unit	Rate ₹
355	Swellable type water stop tape	metre	365.00
356	Primer for swellable type water stop tape	litre	1540.00
357	Polymer modified adhesive mortar	kg	15.00
362	Brick bats	cum	450.00
364	Wire brush	each	20.00
365	Soft brush	each	20.00
367	Portland Cement (OPC-43 Grade)	tonne	4940.00
368	White Cement	tonne	11200.00
369	Plastic sheet, 1.25 mm thick for dowel bars	sqm	25.00
370	Coal (steam)	quintal	440.00
371	Sealant primer	kg	130.00
373	Cramp Gun metal 25x6x300 mm	each	80.00
374	Pre moulded Joint filler, 25 mm thick for expansion joint.	sqm	400.00
378	Brass butt hinges (light/ordinary type) : 125x70x4 mm	10 Nos	775.00
379	Brass butt hinges (light/ordinary type) : 100x70x4 mm	10 Nos	625.00
380	Brass butt hinges (light/ordinary type) : 75x40x2.5 mm	10 Nos	380.00
381	Brass butt hinges (light/ordinary type) : 50x40x2.5 mm	10 Nos	155.00
382	Brass butt hinges (heavy type) : 125x85x5.5 mm(0.70 kg)	10 Nos	1309.00
383	Brass butt hinges (heavy type) : 100x85x5.5 mm(0.56 kg)	10 Nos	997.00
384	Brass butt hinges (heavy type) : 75x65x4.0 mm (weighing not less than 0.20 kg)	10 Nos	838.00
385	Brass parliamentary hinges 150x125x27x5 mm	10 Nos	2610.00
386	Brass parliamentary hinges 125x125x27x5 mm	10 Nos	2300.00
387	Brass parliamentary hinges 100x125x27x5 mm	10 Nos	2090.00
388	Brass parliamentary hinges 75x100x20x3.2 mm	10 Nos	1870.00
389	Brass single acting spring hinges 150 mm	each	425.00
390	Brass single acting spring hinges 125 mm	each	285.00
391	Brass single acting spring hinges 100 mm	each	250.00
392	Brass double acting spring hinges 150 mm	each	480.00
393	Brass double acting spring hinges 125 mm	each	400.00
394	Brass double acting spring hinges 100 mm	each	390.00
400	Brass tower bolt (barrel type) 250x10 mm	each	257.00
401	Brass tower bolt (barrel type) 200x10 mm	each	205.00
402	Brass tower bolt (barrel type) 150x10 mm	each	154.00
403	Brass tower bolt (barrel type) 100x10 mm	each	103.00
404	Brass flush bolt 250 mm	each	150.00
405	Brass flush bolt 150 mm	each	130.00
406	Brass flush bolt 100 mm	each	90.00
408	Brass handles 125 mm with plate 175x32 mm	each	144.00
409	Brass handles 100 mm with plate 150x32 mm	each	133.00
410	Brass handles 75 mm with plate 125x32 mm	each	103.00
411	Brass door latch 300x16x5 mm weighing not less than 0.380 kg	each	185.00
412	Brass door latch 250x16x5 mm weighing not less than 0.350 kg	each	175.00
413	Brass mortice latch and lock 100x65 mm with 6 levers and a pair of brass lever handles	each	400.00
414	Brass mortice latch 100x65mm with a pair of brass lever handles	each	310.00
417	Brass 150 mm floor door stopper weighing not less than 0.357kg	each	160.00
418	Brass hard drawn hooks and eyes 300 mm	10 Nos	600.00
419	Brass hard drawn hooks and eyes 250 mm	10 Nos	574.00
420	Brass hard drawn hooks and eyes 200 mm	10 Nos	510.00
421	Brass hard drawn hooks and eyes 150 mm	10 Nos	400.00
422	Brass hard drawn hooks and eyes 100 mm	10 Nos	345.00
423	Brass casement window fastener	each	45.00

Code No.	Description	Unit	Rate ₹
424	Brass casement stays (straight peg type) 300 mm weighing not less than 0.33 kg	each	126.00
425	Brass casement stays (straight peg type) 250 mm weighing not less than 0.28 kg	each	100.00
426	Brass casement stays (straight peg type) 200 mm weighing not less than 0.24 kg	each	95.00
427	Brass quadrant stays 300 mm	each	110.00
428	Brass fanlight catch	10 Nos	170.00
429	Brass fanlight pivot	10 Nos	168.00
430	Brass chain with hook for fan light catch	each	36.00
431	Brass hasps and staples (safety type) 150 mm	10 Nos	740.00
432	Brass hasps and staples (safety type) 115 mm	10 Nos	670.00
433	Brass hasps and staples (safety type) 90 mm	10 Nos	575.00
438	Brass night latch	each	610.00
442	Brass helical spring 150 mm	each	290.00
444	Brass curtain rod 20 mm dia 1.25 mm thick	metre	140.00
445	Brass curtain rod 25 mm dia 1.25 mm thick	metre	190.00
446	Brass brackets (curtain rods) 20 mm	each	45.00
447	Brass cupboard knob or wardrobe knob 50 mm	each	36.00
449	Brass screws 50 mm	100 Nos	220.00
450	Brass screws 40 mm	100 Nos	170.00
451	Brass screws 30 mm	100 Nos	140.00
452	Brass screws 25 mm	100 Nos	100.00
453	Brass screws 20 mm	100 Nos	95.00
0454	Stainless steel SS grade 304 , curtain rod 20 mm dia 1.20mm thick	Metre	125.00
0455	Stainless steel SS grade 304, curtain rod 25 mm dia 1.20mm thick	Metre	170.00
0456	Stainless steel SS grade 304, brackets (curtain rod) 20 mm dia 1.20mm thick	each	46.00
0457	Stainless steel SS grade 304, brackets (curtain rod) 25 mm dia 1.20mm thick	each	55.00
0458	plastic sleeves for screw	each	2.00
524	Chromium plated Brass butt hinges (heavy) type 75x65x4 mm weighing not less than 200gms	10 Nos	905.00
525	Chromium plated Brass butt hinges (light/ordinary) type 125x70x4mm	10 Nos	805.00
526	Chromium plated Brass butt hinges (light/ordinary) type 100x70x4 mm	10 Nos	690.00
527	Chromium plated Brass butt hinges (light/ordinary) type 75x40x2.5 mm	10 Nos	421.00
528	Chromium plated Brass butt hinges (light/ordinary) type 50x40x2.5 mm	10 Nos	180.00
552	75mm SS fancy handles for kitchen cabinet	10 Nos.	255.00
553	100mm SS fancy handles for kitchen cabinet	10 Nos	455.00
554	125mm SS fancy handles for kitchen cabinet	10 Nos	640.00
555	Chromium plated Brass handles 125 mm with plate 175 x32 mm	each	160.00
556	Chromium plated Brass handles 100 mm with plate 150 x 32 mm	each	140.00
557	Chromium plated Brass handles 75mm with plate 125x32 mm	each	125.00
558	Chromium plated Brass mortice latch and lock 100x65 mm with 6 levers and a pair of brass lever handles	each	470.00
568	Chromium plated brass casement window fastener	each	90.00
569	Chromium plated Brass casement stays (straight peg type) 300 mm weighing not less than 0.33 kg	each	140.00
570	Chromium plated Brass casement stays (straight peg type) 250 mm weighing not less than 0.28 kg	each	120.00
571	Chromium plated Brass casement stays (straight peg type) 200 mm weighing not less than 0.24 kg	each	100.00
583	Chromium plated Brass Night latch	each	500.00
584	Chromium plated Brass Wardrobe Knob 50 mm	each	80.00

Code No.	Description	Unit	Rate ₹
585	Chromium plated Brass screws 50 mm	100 Nos	300.00
586	Chromium plated Brass screws 40 mm	100 Nos	290.00
587	Chromium plated Brass screws 30 mm	100 Nos	240.00
588	Chromium plated Brass screws 25 mm	100 Nos	180.00
589	Chromium plated Brass screws 20 mm	100 Nos	160.00
590	Chromium plated Brass curtain rod 12 mm dia 1.25mm thick	metre	185.00
591	Chromium plated Brass curtain rod 20 mm dia 1.25mm thick	metre	260.00
592	Chromium plated Brass curtain rod 25 mm dia 1.25mm thick	metre	340.00
593	C.P. Brass Extension Nipple (1/2"x2" size)	each	40.00
594	Bright finished or black enameled mild steel butt hinges 125x65x 2.12 mm	10 Nos	135.00
595	Bright finished or black enameled mild steel butt hinges 100x58x 1.90 mm	10 Nos	80.00
596	Bright finished or black enameled mild steel butt hinges 75x47x 1.70 mm	10 Nos	56.00
597	Bright finished or black enameled mild steel butt hinges 50x37x 1.50 mm	10 Nos	49.00
608	Nickel plated bright finished mild steel piano hinges 1 mm thick 25 mm wide	metre	39.00
635	Bright finished or black enameled mild steel screws 50 mm	100 Nos	75.00
637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	60.00
638	Bright finished or black enameled mild steel screws 30 mm	100 Nos	45.00
639	Bright finished or black enameled mild steel screws 25 mm	100 Nos	36.00
640	Bright finished or black enameled mild steel screws 20 mm	100 Nos	30.00
641	Bright finished or black enameled mild steel bolts and nuts 50x6 mm	each	5.00
642	Oxidised mild steel butt hinges 125x65x2.12 mm	10 Nos	130.00
643	Oxidised mild steel butt hinges 100x58x1.90 mm	10 Nos	85.00
644	Oxidised mild steel butt hinges 75x47x1.70 mm	10 Nos	63.00
645	Oxidised mild steel butt hinges 50x37x1.50 mm	10 Nos	53.00
646	Oxidised mild steel parliamentary hinges 150x125x27x2.8 mm	10 Nos	334.00
647	Oxidised mild steel parliamentary hinges 125x125x27x2.8 mm	10 Nos	309.00
648	Oxidised mild steel parliamentary hinges 100x125x27x2.8 mm	10 Nos	231.00
649	Oxidised mild steel parliamentary hinges 75x100x20x2.24 mm	10 Nos	196.00
650	Oxidised mild steel single acting spring hinges 150 mm	each	138.00
651	Oxidised mild steel single acting spring hinges 125 mm	each	118.00
652	Oxidised mild steel single acting spring hinges 100 mm	each	98.00
653	Oxidised mild steel double acting spring hinges 150 mm	each	157.00
654	Oxidised mild steel double acting spring hinges 125 mm	each	135.00
655	Oxidised mild steel double acting spring hinges 100 mm	each	118.00
656	Nickel plated mild steel piano hinges 1 mm thick 35 mm wide	metre	44.00
660	Oxidised mild steel sliding door bolt 300x16 mm	each	93.00
661	Oxidised mild steel sliding door bolt 250x16 mm	each	84.00
662	Oxidised mild steel door latch 300x20x6 mm	each	49.00
663	Oxidised mild steel door latch 250x20x6 mm	each	39.00
664	Oxidised mild steel tower bolt (barrel type) 250x10 mm	each	43.00
665	Oxidised mild steel tower bolt (barrel type) 200x10 mm	each	34.00
666	Oxidised mild steel tower bolt (barrel type) 150x10 mm	each	29.00
667	Oxidised mild steel tower bolt (barrel type) 100x10 mm	each	20.00
668	Oxidised mild steel handles 125 mm	each	20.00
669	Oxidised mild steel handles 100 mm	each	15.00
670	Oxidised mild steel handles 75 mm	each	12.00
679	Oxidised mild steel hasps and staples (safety type) 150 mm	10 Nos	128.00
680	Oxidised mild steel hasps and staples (safety type) 115 mm	10 Nos	108.00
681	Oxidised mild steel hasps and staples (safety type) 90 mm	10 Nos	79.00
682	Oxidised mild steel screws 50 mm	100 Nos	76.00

Code No.	Description	Unit	Rate ₹
683	Oxidised mild steel screws 40 mm	100 Nos	62.00
684	Oxidised mild steel screws 30 mm	100 Nos	49.00
685	Oxidised mild steel screws 25 mm	100 Nos	36.00
686	Oxidised mild steel screws 20 mm	100 Nos	32.00
687	Anodised Aluminium butt hinges 125x75x4 mm	10 Nos	560.00
688	Anodised Aluminium butt hinges 125x63x4 mm	10 Nos	393.00
689	Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	393.00
690	Anodised Aluminium butt hinges 100x63x3.2 mm	10 Nos	270.00
691	Anodised Aluminium butt hinges 100x63x4 mm	10 Nos	324.00
692	Anodised Aluminium butt hinges 75x63x4 mm	10 Nos	275.00
693	Anodised Aluminium butt hinges 75x63x3.2 mm	10 Nos	226.00
694	Anodised Aluminium butt hinges 75x45x3.2 mm	10 Nos	196.00
696	Anodised Aluminium sliding door bolt 300x16 mm	each	147.00
697	Anodised Aluminium sliding door bolt 250x16 mm	each	128.00
698	Anodised Aluminium tower bolt (barrel type) 300x10 mm	10 Nos	580.00
699	Anodised Aluminium tower bolt (barrel type) 250x10 mm	10 Nos	481.00
700	Anodised Aluminium tower bolt (barrel type) 200x10 mm	10 Nos	383.00
701	Anodised Aluminium tower bolt (barrel type) 150x10 mm	10 Nos	304.00
702	Anodised Aluminium tower bolt (barrel type) 100x10 mm	10 Nos	226.00
703	Anodised Aluminium handles 125 mm with plate 175 x 32 mm	10 Nos	324.00
704	Anodised Aluminium handles 100 mm with plate 150 x 32 mm	10 Nos	275.00
705	Anodised Aluminium handles 75mm with plate 125 x 32 mm	10 Nos	231.00
706	Anodised Aluminium kicking plate 50 cm long 100x3.15 mm	each	142.00
713	Block board construction flush door with teak wood ply on both faces 35 mm thick	sqm	1800.00
714	Block board construction flush door with teak wood ply on both faces 30 mm thick	sqm	1600.00
715	Block board construction flush door with teak wood ply on both faces 25 mm thick	sqm	1400.00
717	Block board construction flush door with commercial ply on both faces 35 mm thick	sqm	950.00
718	Block board construction flush door with commercial ply on both faces 30 mm thick	sqm	900.00
719	Block board construction flush door with commercial ply on both faces 25 mm thick	sqm	890.00
752	Block board construction flush door lipping 25 mm thick	sqm of door area	300.00
753	Square vision panel in Block board construction flush door not exceeding 0.10 sqm	sqm of door area	130.00
754	Circular vision panel in Block board construction flush door	sqm of door area	135.00
755	Decorative type louvers in Block board construction flush door	sqm of door area	265.00
757	Rebate cutting in block board construction flush door	sqm of door area	70.00
759	Decorative plywood 4 mm	sqm	320.00
761	Fuel wood	quintal	500.00
763	Glue	kg	75.00
764	Calcium silicate base compound for jointing calcium silicate tiles	kg	26.00
765	Hessian cloth	sqm	35.00
768	Cement Concrete Jali 50 mm thick	sqm	400.00
769	Cement Concrete Jali 40 mm thick	sqm	350.00
770	Cement Concrete Jali 25 mm thick	sqm	275.00
771	Kerosene oil	litre	50.00
772	White cement based polymer modified self curing compound in powder form	kg	15.00
773	Unslaked lime	quintal	300.00

Code No.	Description	Unit	Rate ₹
775	Dehradun white lime	quintal	600.00
776	Satna lime	quintal	370.00
777	Dry hydrated lime (factory made)	quintal	290.00
784	Marble dust/ powder	cum	1130.00
785	Marble chips up to 4 mm and down size White & black	quintal	189.00
788	Marble chips large size above 4 mm White & black	quintal	250.00
801	Silicon and acrylic emulsion	litre	130.00
802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	Kg	36.00
803	Acrylic emulsion, having VOC content less than 50 grams/ litre	litre	94.00
804	Premium acrylic emulsion of interior grade, having VOC content less than 50 grams/ litre	litre	220.00
806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	105.00
808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 grams/ litre	litre	50.00
809	Exterior primer	kg	140.00
810	Moorum	cum	500.00
811	Mud (dry)	cum	165.00
815	Dry distemper	kg	30.00
816	Oil bound washable distemper/ Acrylic distemper	kg	50.00
818	Linseed oil (double boiled)	litre	200.00
820	Cement primer	litre	80.00
821	Distemper primer	litre	70.00
823	Pink primer (for wood)	litre	105.00
824	White cement based putty	kg	13.00
826	Aluminium paint	litre	150.00
827	Acid proof paint (chocolate or black)	litre	225.00
828	Anticorrosive bituminous paint (black)	litre	100.00
829	Black Japan paint	litre	90.00
830	Enamel paint	litre	165.00
831	Floor enamel paint in all shades except green	litre	250.00
833	Synthetic enamel paint in black or chocolate shade	litre	170.00
834	Synthetic enamel paint in all shades except black or chocolate shade	litre	160.00
835	Plastic emulsion paint	litre	200.00
836	100% Premium acrylic dirt resistance, Silicone additives exterior paint	litre	270.00
837	Acrylic Exterior Primer	litre	100.00
845	Roofing paint for iron sheets in red colour	litre	120.00
850	White lead	kg	170.00
851	Water proofing cement paint	kg	38.00
855	Wax polish (ready made)	kg	230.00
856	Ordinary varnish	litre	100.00
857	Superior copal varnish	litre	115.00
858	Superior spar varnish	litre	115.00
859	Oil type wood preservative	litre	130.00
863	Putty for wood work	kg	30.00
865	Pig lead	kg	130.00
868	Premixed super white gypsum plaster	kg	6.00
869	Plaster of Paris	kg	5.00
870	Plug	each	10.00
873	Copper pins 6 mm dia 7.5 cm long	each	10.00
874	Black colour dark shade pigment	kg	70.00
875	Red, chocolate, orange, buff or yellow (red oxide of iron) light shade pigment	kg	60.00

Code No.	Description	Unit	Rate ₹
876	Green or blue medium shade pigment	kg	56.00
886	Standard holder bat clamps for sand cast iron or cast iron pipes 150 mm dia	each	45.00
966	Sand Cast iron plain shoe 150 mm dia	each	285.00
967	Copper plate	kg	527.00
969	Pulley 25 mm dia	each	48.00
973	Rolling shutter made of 80x1.25 mm machine rolled laths	sqm	1400.00
974	Top cover for rolling shutters 1.25 mm thick	metre	800.00
975	27.5 cm long wire spring grade No. 2 for rolling shutters	each	300.00
976	Ball bearing for rolling shutters	each	260.00
977	Extra for mechanical devices chain and cranked operation for operating rolling shutters: exceeding 10.00 sqm and up to 16.80sqm area of door	sqm	800.00
978	Extra for mechanical devices chain and cranked operation for operating rolling shutters: exceeding 16.80 sqm area of door	sqm	800.00
979	Royalty for good earth	cum	40.00
980	Royalty for sludge	cum	90.00
982	Coarse sand	cum	1350.00
983	Fine sand	cum	900.00
992	Galvanised steel plain sheets	quintal	5000.00
0993	FY-1860 grade wire strands	quintal	5700.00
994	Standard quality hard board sheet 3 mm thick	sqm	135.00
996	Standard quality hard board sheet 4.5 mm thick	sqm	210.00
999	Shellac	kg	300.00
1000	Spirit	litre	48.00
1001	Spun yarn	kg	50.00
1002	Mild steel round bar 12 mm dia and below	quintal	4500.00
1003	Mild steel round bar above 12 mm dia	quintal	4400.00
1004	Average rate of Mild steel round bars for reinforcement	quintal	4500.00
1005	Twisted steel/ deformed TMT bars Fe-500D	quintal	4600.00
1006	Mild steel square bars	quintal	4500.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4600.00
1008	Flats up to 10 mm in thickness	quintal	4500.00
1009	Flats exceeding 10 mm in thickness	quintal	4600.00
1010	Mild steel plates	quintal	4800.00
1011	Steel glazed door, window/ ventilator, all members viz. F7D, F4B, K11 and K12B etc.	kg	54.00
1012	Pregalvanized high tensile steel confirming to IS:277-199	kg	90.00
1013	Mild steel sheets of 1.00 mm thickness for tanks	quintal	4600.00
1015	Mild steel expanded metal 20x60 mm strands 3.25 mm wide 1.60 mm thick	sqm	280.00
1019	Mild steel hooks	each	32.00
1020	Mild steel rivets	quintal	5000.00
1021	Hard drawn steel wire fabric 75 x 25 mm mesh of weight not less than 7.75 kg/sqm	sqm	430.00
1022	Galvanised steel bolts & nuts 6 mm dia and 25 mm long round head with slots	10 Nos	38.00
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	120.00
1024	Galvanised steel bolts & nuts 10 mm dia and 125 mm long round head with slots	each	9.00
1025	Mild steel bolts 6 mm dia and 25 mm long with hexagonal head	10 Nos	10.00
1027	Erection Bolts (Minimum 04 nos for each element)	each	25.00
1028	Straining bolts	each	80.00
1029	Galvanised steel barbed wire of 9.8 kg /100metre	quintal	5500.00
1030	Galvanised steel turn buckles	each	25.00
1031	Galvanised steel bolts & nuts 10 mm dia and 27 cm long both sides threaded with 4 galvanised steel nuts	each	20.00

Code No.	Description	Unit	Rate ₹
1032	Galvanised steel bolts 10 mm dia and 7 cm long with nuts	each	6.00
1034	Bolts and nuts up to 300 mm in length	quintal	4800.00
1035	Bolts and nuts above 300 mm in length	quintal	5100.00
1036	Iron pintels including welded pin	each	37.00
1143	Steel beading 10x10x1.6mm (box type)	metre	27.00
1145	Aluminium Plain Strip edging 38x12x3 mm	metre	90.00
1149	Glass strip 4 mm thick 40 mm deep	metre	20.00
1151	Boundary stone top chisel dressed 15x15x90 cm	each	80.00
1154	Through and bond stone	100 Nos	5000.00
1157	Stone for masonry work	cum	1100.00
1158	Stone for pitching 15 cm x 22.5 cm	cum	600.00
1159	Stone dust	cum	1100.00
1160	Red sand stone block	10 cudm	79.00
1161	White sand stone block	10 cudm	205.00
1163	White sand stone slab 75 mm thick (un-dressed)	sqm	900.00
1164	Red sand stone slab 40 mm thick (un-dressed)	sqm	200.00
1165	White sand stone slab 40 mm thick (un-dressed)	sqm	200.00
1166	Red sand stone slab 30 mm thick (un-dressed)	sqm	200.00
1168	Kota stone slab 20 mm to 25 mm thick (semi-polished)	sqm	280.00
1169	Kota stone slab 25mm thick (rough chiseled)	sqm	301.00
1174	Red sand stone slab 45 mm to 50 mm thick (un-dressed)	sqm	225.00
1175	White sand stone slab 45 mm to 50 mm thick (un-dressed)	sqm	240.00
1177	Stone grit 6 mm and down size or pea sized gravel	cum	800.00
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	900.00
1182	Surkhi	cum	700.00
1186	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cudm	1100.00
1187	First class teak wood in scantling	10 cudm	880.00
1188	First class teak wood in planks	10 cudm	850.00
1189	Second class teak wood in scantling	10 cudm	776.00
1190	Second class teak wood in planks	10 cudm	791.00
1191	Marandi wood in planks	10 cudm	440.00
1192	Marandi wood in scantling	10 cudm	431.00
1194	Second class deodar wood in planks	10 cudm	500.00
1196	First class kail wood in planks	10 cudm	300.00
1197	Second class kail wood in scantling	10 cudm	260.00
1198	Second class kail wood in planks	10 cudm	260.00
1199	Sal wood in scantling	10 cudm	600.00
1200	Kiln seasoned selected sheesham wood planks	10 cudm	650.00
1201	Precast terrazzo tiles 22 mm thick (light shade)	sqm	285.00
1202	Precast terrazzo tiles 22 mm thick (medium shade)	sqm	265.00
1203	Precast terrazzo tiles 22 mm thick (dark shade)	sqm	245.00
1204	Precast heat resistant terrace tiles (size 300x300 mm) and 20 mm thick	sqm	409.00
1207	G.I. Limpet washer	100 Nos	21.00
1208	Bitumen washer	100 Nos	30.00
1209	G.I. plain washer thick	100 Nos	35.00
1210	G.I. plain washer thin	100 Nos	21.00
1211	G.I. plain washer for seam bolts	100 Nos	32.00
1213	Water proofing materials	kilogram	35.00
1214	Welding by gas plant	cm	2.00
1215	Welding by electric plant	cm	2.00
1216	Whiting	quintal	600.00
1217	GI Wire mesh 100x100 mm	Kg	75.00
1218	Shear stud	each	50.00

Code No.	Description	Unit	Rate ₹
1219	Wire nails	kilogram	58.00
1220	Wire mesh (rabbit)	sqm	42.00
1221	20 mm dia holding down bolts	quintal	6100.00
1222	Mild steel sheets with bolts and nuts to rest on pintels	each	120.00
1223	Steel weld mesh	sqm	150.00
1224	Hard drawn steel wire	quintal	4800.00
1225	Mild steel flat strap fitting	quintal	4120.00
1227	Chequered terrazzo tiles 22 mm thick (light shade)	sqm	275.00
1228	Chequered terrazzo tiles 22 mm thick (medium shade)	sqm	300.00
1229	Chequered terrazzo tiles 22 mm thick (dark shade)	sqm	260.00
1231	Extra for selected planks of second class teakwood	10 cu dm	150.00
1234	Aluminium Plain Strip edging 57x12x3 mm	metre	135.00
1235	Diesel	litre	73.50
1237	Cutting marble or sand stone slab up to 50 mm thick by mechanical device	metre	10.00
1238	Extra for selected planks of first class teakwood	10 cu dm	150.00
1239	18 mm thick Flamed finish granite stone slab	sqm	1000.00
1240	18 mm thick Italian Marble stone slab, Perlato (slab area up to 0.5 sqm).	sqm	3209.00
1241	Commercial LPG in cylinder	kg	82.00
1242	Glass mosaic tiles (20 mm x 20 mm x 4 mm)	sqm	2049.00
1243	Tile fixing chemical adhesive	kg	8.70
1244	Cement Polymer Grout Compound	kg	16.00
1245	Acid for cleaning tiles	litre	18.00
1246	Silicon based Joint Sealant for Tiles	kg	160.00
1247	Rubber base Adhesive	kg	223.00
1248	Epoxy based sealing Compound	kg	535.00
1249	Acrylic based sealing compound	kg	500.00
1250	Non woven reinforcement Tape	metre	0.14
1251	M-60 grade cementitious grout (Non Shrink)	kg	28.00
1252	Cementitious polymer base adhesive confirming to EOTA ETAG 004 (European Technical Approval)	kg	34.00
1253	Polypropylene mechanical fastener with plastic pin confirming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm	each	30.00
1254	Moisture cure Polyurethane Foam	750 ml	600.00
1255	PVC Corner Bead of size 25mmx25mm fixed with glass fibre mesh (100mm x 100mm)	metre	90.00
1256	Cementitious polymer base coat confirming to EOTA ETAG 004 (European Technical Approval)	kg	40.00
1257	Fiberglass mesh with alkali-resistant coating having mass per unit area ?145 g/m ² , mesh size: 3.9x4.0 mm ±10%	sqm	75.00
1301	Bleaching powder	quintal	1800.00
1304	Surface box for stop cock	each	125.00
1305	Surface box for sluice valve	each	210.00
1307	Surface box for water meter	each	250.00
1309	C.I. bracket for wash basin and sinks	pair	88.00
1313	8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate for European type W.C.	each	200.00
1314	C.P.brass chain with 32 mm dia rubber plug	each	40.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	40.00
1316	50mmx50mm hardwood plug	each	75.00
1330	Clamps and M.S. stays including bolts and nuts for 100 mm pipe	each	67.50
1331	M.S. Holder bat clamp of approved design for 100 mm S.C.I. pipe	each	30.00
1332	M.S. Holder bat clamp of approved design for 75 mm S.C.I. pipe	each	27.00
1334	Clamps and M.S. stays including bolts and nuts for 50 mm pipe	each	35.00

Code No.	Description	Unit	Rate ₹
1335	Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	37.00
1336	Clearing eye with chain and lid 100 mm dia	each	44.00
1337	Clearing eye with chain and lid 150 mm dia	each	50.00
1339	Brass bib-cock 15 mm dia	each	210.00
1340	Brass bib-cock 20 mm dia	each	225.00
1342	Brass stop-cock 15 mm dia	each	210.00
1343	Brass stop-cock 20 mm dia	each	225.00
1350	Mosquito proof coupling of approved design	each	30.00
1352	C.I. cover and frame 300x300 mm inside	each	477.00
1353	C.I. cover without frame 300x300 mm inside i/c cover of 4.50 kg	each	477.00
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1400.00
1355	Rectangular cover 455x610 mm without frame (low duty)	each	910.00
1356	500 mm dia cover with frame (medium duty)	each	4400.00
1357	500 mm dia cover without frame (medium duty)	each	2300.00
1360	C.I. mouth, brass ferrule 15 mm dia	each	140.00
1361	C.I. mouth, brass ferrule 20 mm dia	each	160.00
1362	C.I. mouth, brass ferrule 25 mm dia	each	220.00
1363	Vitreous china foot rests 250x130x30 mm	pair	100.00
1364	C.I. grating 100x100 mm	each	40.22
1366	C.I. grating 150x150 mm	each	54.42
1367	C.I. grating 180x180 mm	each	65.00
1369	S.C.I. gully or nahani grating 100 mm dia	each	25.00
1373	Rubber insertions for 75 mm dia pipe joints	each	16.00
1374	Rubber insertions for 100 mm dia pipe joints	each	18.00
1375	Rubber insertions for 125 mm dia pipe joints	each	20.00
1376	Rubber insertions for 150 mm dia pipe joints	each	20.00
1377	Rubber insertions for 200 mm dia pipe joints	each	25.00
1378	Rubber insertions for 250 mm dia pipe joints	each	40.00
1379	Rubber insertions for 300 mm dia pipe joints	each	45.00
1380	Rubber insertions for 350 mm dia pipe joints	each	50.00
1381	Rubber insertions for 400 mm dia pipe joints	each	73.00
1382	Rubber insertions for 450 mm dia pipe joints	each	92.00
1383	Rubber insertions for 500 mm dia pipe joints	each	110.00
1384	Rubber insertions for 600 mm dia pipe joints	each	125.00
1392	Mirror of superior make glass 60x45 cm	each	400.00
1396	Vitreous china pedestal for wash basin	each	900.00
1397	Pig lead	kg	176.00
1464	S & S.C.I. standard specials upto 300 mm dia (heavy class)	quintal	3600.00
1466	S & S.C.I. standard specials over 300 mm dia (heavy class)	quintal	3700.00
1468	Flanged C.I. standard specials upto 300 mm dia (heavy class)	quintal	5500.00
1470	Flanged C.I. standard specials over 300 mm dia (heavy class)	quintal	5500.00
1472	Casing pipe 100 mm dia	metre	335.00
1532	Flush pipe with union spreaders and clamps all in C.P. brass for single stall	each	270.00
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	400.00
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	520.00
1535	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	600.00
1540	Flush pipe and spreaders G.I. for single set of one squatting plate urinal	each	175.00
1541	Flush pipe and spreaders G.I. for range of two squatting plates urinal	each	250.00
1542	Flush pipe and spreaders G.I. for range of three squatting plates urinal	each	300.00

Code No.	Description	Unit	Rate ₹
1543	Flush pipe and spreaders G.I. for range of four squatting plates urinal	each	390.00
1545	G.I. pipes 15 mm dia	metre	91.00
1546	G.I. pipes 20 mm dia	metre	120.00
1547	G.I. pipes 25 mm dia	metre	171.00
1548	G.I. pipes 32 mm dia	metre	215.00
1549	G.I. pipes 40 mm dia	metre	250.00
1550	G.I. pipes 50 mm dia	metre	310.00
1551	G.I. pipes 65 mm dia	metre	395.00
1552	G.I. pipes 80 mm dia	metre	505.00
1555	G.I. back (jam) nuts 25 mm dia	each	15.00
1559	G.I. back (jam) nuts 65 mm dia	each	25.00
1608	G.I. tees (equal) 25 mm	each	50.00
1612	G.I. tees (equal) 65 mm	each	452.00
1614	G.I. inlet connection	each	60.00
1616	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 75 mm dia	each	1050.00
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100 mm dia	each	1135.00
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150 mm dia	each	1750.00
1620	S.C.I. plain bend 75 mm dia	each	210.00
1621	S.C.I. plain bend 100 mm dia	each	258.00
1622	S.C.I. plain bend 150 mm dia	each	460.00
1624	S.C.I. bend with access door 75 mm dia	each	240.00
1625	S.C.I. bend with access door 100 mm dia	each	300.00
1627	S.C.I. plain single equal junctions 75x75x75 mm dia	each	278.00
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	360.00
1630	S.C.I. single equal junctions 75x75x75 mm dia with access door	each	320.00
1631	S.C.I. single equal junctions 100x100x100 mm dia with access door	each	405.00
1633	S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	382.00
1634	S.C.I. plain double equal junctions 100x100x100x100 mm dia	each	590.00
1636	S.C.I. double equal junctions 75x75x75x75 mm dia with access door	each	500.00
1637	S.C.I. double equal junctions 100x100x100x100 mm dia with access door	each	715.00
1639	Slotted cowl (terminal guard) 75 mm dia	each	191.00
1640	Slotted cowl (terminal guard) 100 mm dia	each	239.00
1641	G.I. Union 15 mm nominal bore	each	30.00
1642	G.I. Union 20 mm nominal bore	each	49.00
1643	G.I. Union 25 mm nominal bore	each	108.00
1644	G.I. Union 32 mm nominal bore	each	141.00
1645	G.I. Union 40 mm nominal bore	each	192.00
1646	G.I. Union 50 mm nominal bore	each	249.00
1647	G.I. Union 65 mm nominal bore	each	504.00
1648	G.I. Union 80 mm nominal bore	each	563.00
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	5.50
1653	Sand cast iron S&S plain single unequal junctions: 100x100x 75 mm dia	each	494.00
1656	Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door	each	550.00
1659	Sand cast iron S&S plain double unequal junctions: 100x100x75x75 mm dia	each	615.00
1662	Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door	each	700.00
1666	Sand cast iron heel rest bend 75 mm dia	each	274.00

Code No.	Description	Unit	Rate ₹
1667	Sand cast iron heel rest bend 100 mm dia	each	347.00
1669	S.C.I. single equal invert branch of required degree 75x75x75 mm dia	each	320.00
1670	S.C.I. single equal invert branch of required degree 100x100x 100 mm dia	each	410.00
1672	S.C.I. double equal invert branch of required degree 75x75x75x 75 mm dia	each	410.00
1673	S.C.I. double equal invert branch of required degree 100x100x 100x100 mm dia	each	550.00
1674	S.C.I. single unequal invert branch of required degree 100x100x 75 mm dia	each	495.00
1677	S.C.I. double unequal invert branch of required degree 100x100x 75x75 mm dia	each	570.00
1682	S.C.I. door pieces 75 mm dia	each	283.00
1683	S.C.I. door pieces 100 mm dia	each	475.00
1685	S.C.I. collar 75 mm dia	each	177.00
1686	S.C.I. collar 100 mm dia	each	246.00
1687	Unplasticised P.V.C. connection pipe with brass union 30 cm long 15 mm bore	each	30.00
1688	Unplasticised P.V.C. connection pipe with brass union 30 cm long 20 mm bore	each	35.00
1689	Unplasticised P.V.C. connection pipe with brass union 45 cm long 15 mm bore	each	35.00
1690	Unplasticised P.V.C. connection pipe with brass union 45 cm long 20 mm bore	each	48.00
1693	S.C.I. hand pump	each	670.00
1700	R.C.C. pipes NP2 class 100 mm dia	metre	200.00
1701	R.C.C. pipes NP2 class 150 mm dia	metre	212.00
1702	R.C.C. pipes NP2 class 250 mm dia	metre	350.00
1703	R.C.C. pipes NP2 class 300 mm dia	metre	445.00
1704	R.C.C. pipes NP2 class 450 mm dia	metre	750.00
1705	R.C.C. pipes NP2 class 500 mm dia	metre	925.00
1706	R.C.C. pipes NP2 class 600 mm dia	metre	1100.00
1707	R.C.C. pipes NP2 class 700 mm dia	metre	1485.00
1709	R.C.C. pipes NP2 class 800 mm dia	metre	1800.00
1710	R.C.C. pipes NP2 class 900 mm dia	metre	2500.00
1711	R.C.C. pipes NP2 class 1000 mm dia	metre	2900.00
1712	R.C.C. pipes NP2 class 1100 mm dia	metre	3200.00
1713	R.C.C. pipes NP2 class 1200 mm dia	metre	3510.00
1714	R.C.C. collars NP2 class 100 mm dia	each	30.00
1715	R.C.C. collars NP2 class 150 mm dia	each	35.00
1716	R.C.C. collars NP2 class 250 mm dia	each	50.00
1717	R.C.C. collars NP2 class 300 mm dia	each	55.00
1718	R.C.C. collars NP2 class 450 mm dia	each	100.00
1719	R.C.C. collars NP2 class 500 mm dia	each	115.00
1720	R.C.C. collars NP2 class 600 mm dia	each	140.00
1721	R.C.C. collars NP2 class 700 mm dia	each	150.00
1723	R.C.C. collars NP2 class 800 mm dia	each	200.00
1724	R.C.C. collars NP2 class 900 mm dia	each	235.00
1725	R.C.C. collars NP2 class 1000 mm dia	each	280.00
1726	R.C.C. collars NP2 class 1100 mm dia	each	300.00
1727	R.C.C. collars NP2 class 1200 mm dia	each	350.00
1728	RCC pipe 450 mm dia NP-3 spigot	metre	1496.00
1729	RCC pipe 600 mm dia NP-3 spigot	metre	1995.00
1730	RCC pipe 900 mm dia NP-3 spigot	metre	3150.00
1731	RCC pipe 1000 mm dia NP-3 spigot	metre	3885.00
1732	RCC pipe 1200 mm dia NP-3 spigot	metre	5040.00

Code No.	Description	Unit	Rate ₹
1733	RCC pipe 1800 mm dia NP-3 spigot	metre	9450.00
1734	RCC pipe 450 mm dia NP-4 spigot	metre	1733.00
1735	RCC pipe 600 mm dia NP-4 spigot	metre	2310.00
1736	RCC pipe 900 mm dia NP-4 spigot	metre	4494.00
1737	RCC pipe 1000 mm dia NP-4 spigot	metre	5565.00
1738	RCC pipe 1200 mm dia NP-4 spigot	metre	6510.00
1739	RCC pipe 1800 mm dia NP-4 spigot	metre	13650.00
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	55.00
1855	Stoneware pipes grade A (60 cm long) 150 mm dia	each	100.00
1856	Stoneware pipes grade A (60 cm long) 200 mm dia	each	200.00
1857	Stoneware pipes grade A (60 cm long) 230 mm dia	each	250.00
1858	Stoneware pipes grade A (60 cm long) 250 mm dia	each	320.00
1859	Stoneware pipes grade A (60 cm long) 300 mm dia	each	478.00
1863	Fire clay kitchen sink: 600x450x250 mm	each	1283.00
1871	White vitreous china laboratory sink 450x300x150 mm	each	1500.00
1872	White vitreous china laboratory sink 600x450x200 mm	each	2500.00
1875	White plastic seat (solid) with lid C.P. brass hinges and rubber buffers	each	400.00
1876	Black plastic seat (solid) with lid C.P. brass hinges and rubber buffers	each	310.00
1878	Shower rose C.P. brass for 15 to 20 mm inlet 100 mm dia	each	100.00
1879	Shower rose C.P. brass for 15 to 20 mm inlet 150 mm dia	each	125.00
1880	Dismantled P or S trap scrap (approx wt 2kg)	kg	22.00
1881	Spun yarn	kg	50.00
1882	Strainer brass 40 mm dia 1.5 metre long	each	600.00
1885	15 mm C.P. brass tap	each	207.00
1889	C.P. brass toilet paper holder of standard size	each	225.00
1890	Centrifugally SCI(spun) S & S P or S trap	each	300.00
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P. brass: 50 mm dia	each	170.00
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P. brass: 80 mm dia	each	225.00
1895	C.P. brass trap 40 mm dia	each	300.00
1896	100 mm S.C.I. trap with vent heel	each	320.00
1897	100 mm S.C.I. trap with 100 mm inlet and 100 mm outlet	each	271.00
1898	100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet	each	218.00
1900	S.W. gully trap P type 100x100 mm	each	100.00
1902	S.W. gully trap P type 150x100 mm	each	130.00
1904	S.W. gully trap P type 180x150 mm	each	225.00
1913	Vitreous china lipped front urinal	each	460.00
1915	Vitreous china squatting plate urinal	each	1053.00
1922	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	210.00
1923	H.P. or L.P. ball valve with polythene floats: 20 mm dia	each	235.00
1924	H.P. or L.P. ball valve with polythene floats: 25 mm dia	each	230.00
1926	20 mm dia Gunmetal gate valve with wheel	each	325.00
1927	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	each	350.00
1928	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	410.00
1929	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	480.00
1930	Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	620.00
1931	Brass full way valve with C.I. wheel (screwed end) 65 mm dia	each	1080.00
1932	Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1620.00
1933	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	330.00
1934	Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	450.00
1935	Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	560.00
1936	Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	820.00

Code No.	Description	Unit	Rate ₹
1937	Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1490.00
1938	Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	2120.00
1940	C.I. sluice valve (with caps) class I: 100 mm dia	each	2410.00
1941	C.I. sluice valve (with caps) class I : 125 mm dia	each	2600.00
1942	C.I. sluice valve (with caps) class I: 150 mm dia	each	3600.00
1943	C.I. sluice valve (with caps) class I : 200 mm dia	each	7500.00
1944	C.I. sluice valve (with caps) class I : 250 mm dia	each	10980.00
1945	C.I. sluice valve (with caps) class I: 300 mm dia	each	15500.00
1947	Vitreous china flat back wash basin 630x450 mm	each	725.00
1949	Vitreous china angle back wash basin 600x480 mm	each	725.00
1950	Vitreous china angle back wash basin 400x400 mm	each	425.00
1951	C.P. brass waste 32 mm	each	80.00
1952	C.P. brass waste 40 mm	each	95.00
1953	Vitreous china Indian type W.C. pan of size 580 mm	each	450.00
1954	Vitreous china orrisa type W.C. pan of size 580 mm	each	1200.00
1955	Vitreous china pedestal type water closet	each	1000.00
1956	Bolts and nuts 16 mm dia 60 mm long	each	11.00
1957	Bolts and nuts 16 mm dia 65 mm long	each	12.00
1958	Bolts and nuts 20 mm dia 65 mm long	each	15.00
1959	Bolts and nuts 20 mm dia 70 mm long	each	17.00
1960	Bolts and nuts 20 mm dia 75 mm long	each	16.00
1961	Bolts and nuts 20 mm dia 80 mm long	each	18.00
1962	Bolts and nuts 24 mm dia 85 mm long	each	28.00
1963	Bolts and nuts 24 mm dia 90 mm long	each	32.00
1964	Bolts and nuts 27 mm dia 100 mm long	each	38.00
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	each	2500.00
1966	Floor mounted white vitreous china double trap syphonic WC with 10 litre cistern and all fittings & fixtures, seat cover etc	each	9500.00
1970	Vitreous china foot rests 250x125x25 mm	pair	100.00
1980	Fly ash	cum	10.00
1984	Common burnt clay F.P.S. bricks tile class designation 10	1000 Nos	4500.00
1986	Common burnt clay modular bricks class designation 12.5	1000 Nos	5000.00
2200	Carriage of Steam coal	tonne	121.29
2201	Carriage of Bricks	1000 Nos	283.01
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	106.13
2203	Carriage of Coarse sand	cum	106.13
2204	Carriage of Timber	cum	121.29
2205	Carriage of Steel	tonne	94.34
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	115.36
2207	Carriage of Brick tiles	1000 Nos	169.81
2208	Carriage of Lime	cum	106.13
2209	Carriage of Cement	tonne	94.34
2211	Carriage of Tar / Bitumen	tonne	106.13
2215	Carriage of Soling stone & masonry stone	cum	124.86
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	94.34
2224	Carriage of S.W. pipes 100 mm dia	100 metre	141.51
2225	Carriage of S.W. pipes 150 mm dia	100 metre	283.01
2226	Carriage of S.W. pipes 200 mm dia	100 metre	471.69
2228	Carriage of S.W. pipes 250 mm dia	100 metre	808.61
2229	Carriage of S.W. pipes 300 mm dia	100 metre	1010.76
2241	Carriage of Good earth	cum	132.66
2242	Carriage of Dump manure by mechanical transport upto 5 km lead	cum	115.36
2260	Carriage of Brick aggregate	cum	115.36

Code No.	Description	Unit	Rate ₹
2261	Carriage of Fine sand	cum	106.13
2262	Carriage of Flyash	cum	106.13
2264	Carriage of Rubbish	cum	106.13
2265	Carriage of Moorum	cum	106.13
2266	Carriage of Surkhi	cum	106.13
2267	Carriage of Stone dust	cum	106.13
2268	Carriage of Marble dust and/or marble chips	cum	106.13
2271	Carriage of G.I. pipes below 100 mm dia	tonne	94.34
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	94.34
2273	Carriage of A.C.sheet and accessories	tonne	94.34
2275	Carriage of R.C.C. pipes 100 mm dia	100 metre	231.98
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	386.63
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	893.73
2290	Carriage of R.C.C. pipes 300 mm dia	100 metre	1104.66
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	2577.54
2302	Carriage of G.I. sheet and accessories	tonne	94.34
2303	Carriage of R.C.C. pipes 600,700,750 & 800 mm dia	100 metre	3866.30
2308	Carriage of Plaster of paris	tonne	94.34
2309	Carriage of Cast Iron fittings	tonne	94.34
2311	Carriage of bajri	cum	106.13
2314	Carriage of Barbed wire	tonne	94.34
2317	Carriage of Sludge	cum	115.36
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	231.98
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	309.87
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	386.63
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	628.92
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	893.73
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	1104.66
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	1546.52
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	2108.89
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	2577.54
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	2577.54
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	3866.30
2330	Carriage of C.I. pipes 500 mm dia	100 metre	2577.54
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	5799.46
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	7732.61
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	7732.61
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	7732.61
2335	Carriage of sand	cum	106.13
2336	Carriage of R.C.C. pipe above 1200 mm dia and upto 1800 mm dia	100 metre	7732.61
2341	Carriage of Pig lead	tonne	94.34
2342	Carriage of Solvent / Diesel.	quintal	10.61
2343	Carriage of Ductile Iron pipes (k7) 100 mm dia	100 metre	231.98
2344	Carriage of Cast iron pipes 150 mm dia	100 metre	386.63
2345	Carriage of Cast iron pipes 200 mm dia	100 metre	628.92
2346	Carriage of Cast iron pipes 250 mm dia	100 metre	893.73
2347	Carriage of Cast iron pipes 300 mm dia	100 metre	1104.66
2348	Carriage of Cast iron pipes 350 mm dia	100 metre	1546.52
2349	Carriage of Cast iron pipes 400 mm dia	100 metre	2108.89
2350	Carriage of Cast iron pipes 450 mm dia	100 metre	2577.54
2351	Carriage of Cast iron pipes 500 mm dia	100 metre	2577.54
2352	Carriage of Cast iron pipes 600 mm dia	100 metre	3866.30
2353	Carriage of Cast iron pipes 700 mm dia	100 metre	3866.30
2355	Carriage of Cast iron pipes 800 mm dia	100 metre	3866.30

Code No.	Description	Unit	Rate ₹
2356	Carriage of Cast iron pipes 900 mm dia	100 metre	5799.46
2357	Carriage of Cast iron pipes 1000 mm dia	100 metre	7732.61
2358	Carriage of Bamboo Mat corrugated sheets and accessories	tonne	11500.00
2391	Strips-Aluminium fluted 3.15 mm thick and 150 mm wide	metre	278.00
2392	Strips Aluminium fluted 3.15 mm thick and 200 mm wide	metre	370.00
2393	1 mm thick Stainless Steel Cover plate grade 304	kg	275.00
2394	Coupler 16 mm dia	each	30.00
2395	Coupler 20 mm dia	each	39.00
2396	Coupler 25 mm dia	each	69.50
2397	Coupler 28 mm dia	each	80.00
2398	Coupler 32 mm dia	each	110.00
2399	Complete Roof Joint of 100 mm	metre	2800.00
2400	Complete Roof Joint of 150 mm	metre	3200.00
2401	Complete Roof Joint of 200 mm	metre	4000.00
2402	Epoxy adhesive	kg	150.00
2403	Floor Joint of 100 mm	metre	3100.00
2404	Floor Joint of 150 mm	metre	4000.00
2405	Floor Joint of 200 mm	metre	5400.00
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	300.00
2407	Float glass sheet of nominal thickness 5.5 mm (weight not less than 13.50 kg/sqm)	sqm	500.00
2408	Float glass sheet of nominal thickness 8 mm (weight not less than 20.00 kg/sqm)	sqm	610.00
2409	Wall Joint of 100 mm	metre	2400.00
2410	Wall Joint of 150 mm	metre	2800.00
2411	Wall Joint of 200 mm	metre	3400.00
2412	Ply wood 5 ply with commercial ply on both faces 6 mm thick	sqm	300.00
2413	12 mm commercial ply	sqm	500.00
2414	18 mm thick block board with commercial ply veneering on both side	sqm	760.00
2415	21mm thick clear toughened Laminated glass for fins with holes	sqm	6000.00
2447	Hollock ballies 125 mm diameter	metre	35.00
2449	Oxidised mild steel pull bolt lock (locking bolt) of size 85 mm x 42 mm with screws, bolts, nuts and washers complete	each	60.00
2451	Brass cupboard lock 6 levers of approved quality, 40 mm size	each	55.00
2452	Brass cupboard lock 6 levers of approved quality, 50 mm size	each	85.00
2453	Brass cupboard lock 6 levers of approved quality, 65 mm size	each	90.00
2454	Brass cupboard lock 6 levers of approved quality, 75 mm size	each	105.00
2455	Brass hanging type door stopper 150 mm	each	75.00
2456	Hydraulic door closer bottle type M.S. body with necessary accessories and screws complete	each	673.00
2459	Anodised Aluminium hanging type door stopper	each	19.00
2464	Anodised Aluminium pull bolt lock (locking bolt) of size 85 mm x 42 mm with screws, bolts, nuts and washers complete	each	46.00
2465	Anodised Aluminium Casement stay 250 mm	each	32.00
2466	Hollock wood in scantling	10 cudm	350.00
2467	Chromium plated Brass pull bolt lock (locking bolt) of size 85 mm x 42 mm with screws, bolts, nuts and washers complete	each	165.00
2468	Nickled Chromium Brass cupboard lock 40 mm size	each	60.00
2469	Nickled Chromium Brass cupboard lock 50 mm size	each	70.00
2470	Nickled Chromium Brass cupboard lock 65 mm size	each	95.00
2471	Nickled Chromium Brass cupboard lock 75 mm size	each	120.00
2480	Ply wood 5 ply with teak ply on both faces 9 mm thick	sqm	850.00
2481	Ply wood 5 ply with teak ply on one face and commercial ply on another face 9 mm thick	sqm	870.00

Code No.	Description	Unit	Rate ₹
2483	Ply wood 7 ply with teak ply on one face and commercial ply on another face 9 mm thick	sqm	950.00
2484	Pre-laminated with decorative lamination on both side exterior Grade-I MDF Board 12 mm thick confirming to IS:14587	sqm	460.00
2485	Pre-laminated with decorative lamination on both side exterior Grade-I MDF Board 18 mm thick confirming to IS:14587	sqm	597.00
2486	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade-I MDF Board 25 mm thick confirming to IS: 14587	sqm	860.00
2487	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade-I MDF Board 12 mm thick confirming to IS:14587	sqm	430.00
2488	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade-I MDF Board 18 mm thick confirming to IS:14587	sqm	565.00
2489	PVC edge bending tape 2.00 mm thick	metre	20.00
2491	Pre laminated both side solid foam uPVC profile (45x20mm)	metre	130.00
2492	Solid foam uPVC sheet 20mm thick pre laminated on both side	sqm	2090.00
2493	PVC edge beading	metre	31.00
2494	Expandable fastner with plastic sleeve	each	5.00
2500	Extra for selected planks of second class deodar wood	10 cudm	110.00
2504	Kiln seasoning of timber	cum	750.00
2505	Hollock wood in planks	10 cudm	390.00
2506	Carben Steel galvanised (min 5 micron) dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 60 mm	10 Nos	260.00
2507	Carben Steel galvanised (min 5 micron) dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 80 mm	10 Nos	300.00
2508	Carben Steel galvanised (min 5 micron) dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 120 mm	10 Nos	365.00
2509	Carben Steel galvanised (min 5 micron) dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 140 mm	10 Nos	450.00
2510	Carben Steel galvanised (min 5 micron) dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 160 mm	10 Nos	575.00
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	4500.00
2603	Common burnt clay F.P.S. (non modular) bricks class designation 5.0	1000 Nos	4000.00
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum/ Alluminium work complying to ASTM C920, DIN 18540- F & ISO 11600 incl all taxes	each	532.00
2605	Structural sealant - 6 mm x 12 mm	metre	30.00
2606	Spacer tape 6.4 mm thick x 6 mm wide	metre	20.00
2607	Weather Sealant - Non Staining (600 ml)	each	325.00
2608	Weather Sealant - Normal (300 ml)	each	98.00
2609	MS Brackets/Aluminium Alloy Brackets	kg	100.00
2610	Silicon Gasket in Kg (Above 50 g / m)	kg	465.00
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	150.00
2612	Anchor Fastner - M10	each	10.00

Code No.	Description	Unit	Rate ₹
2613	SS Bolt with washer of different sizes for structural glazing / ACP Cladding	each	35.00
2614	SS Screws of sizes for structural glazing / ACP Cladding	each	3.00
2615	Protective Tape	metre	20.00
2616	GI flashing - 1.2 mm Thick	kg	59.00
2617	6 mm thick High performance glass	sqm	1000.00
2618	6 mm thick clear heat strengthened glass	sqm	650.00
2619	6 mm thick clear heat strengthened glass	each	128.00
2620	ARMS GS HD - Top Hung -20"- Type P- Couple	pair	1350.00
2621	Connection Block for vision glass panel	each	35.00
2622	Curtain wall striker for vision glass panel	each	85.00
2623	Adjustable Fastening Pawl for vision glass panel	each	35.00
2624	Corner drive for vision glass panel	each	255.00
2625	Top wedge Block for vision glass panel	each	120.00
2626	Glass wool of denisity @ 48 Kg / cum with black glass tissue (BGT)	sqm	250.00
2627	SS Screws - # 8 x 19	each	6.00
2628	Weather Sealant - DC 789	cartridge	120.00
2629	Cement Board	sqm	235.00
2630	Baker rod	metre	5.00
2631	4 mm thick ACP	sqm	1100.00
2632	Fire Stop	metre	480.00
2634	GI/Aluminium Sheet (0.8 mm thick)	kg	55.00
2635	GI Screws of gauge 10, length 25 mm for fixing cement fibre board to C section	each	3.00
2636	GI Screws of gauge 10, length 45 mm for fixing cement fibre board to C section	each	3.00
2637	Vapour barrier	sqm	175.00
2640	Clear.toughned interlayered,non-wired fire resistant glass panes of minimum 11 mm thickness (120 minutes fire rating)	sqm	25000.00
2641	G.I U beading of 1.6 mm thick G.I sheet with ceramic tape.	metre	245.00
2642	Ceramic tape 5 x20 mm size	metre	410.00
2704	Aluminium Strip 40 mm wide and 2 mm thick	kg	240.00
2708	Truf Paver (500 x 500 x 40 mm)	sqm	500.00
2709	Ceremic Tiles Pieces for Crazy Flooring	quintal	135.00
2710	White marble makrana second quality plain veined stone pieces for crazy flooring	quintal	150.00
2711	FS800H Grade Flooring Panel (Size 600 mm x600 mm x32 mm)	each	750.00
2712	Zinc Electroplated Pedestals - 300 mm	each	140.00
2713	Zinc Electroplated Pedestals - 450 mm	each	200.00
2714	Zinc Electroplated Tube Stinger	each	66.00
2715	Machine Screw for Fixing	each	2.00
2750	8 mm thick granite stone tiles (mirror polished of all shades)	sqm	700.00
2751	8 mm thick marble tiles (polished) Raj Nagar	sqm	400.00
2901	Stone Aggregate (Single size): 100 mm nominal size	cum	1350.00
2902	Stone Aggregate (Single size): 80 mm nominal size	cum	1350.00
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	1400.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	1400.00
2908	Over burnt (Jhama) Brick Aggregate: 120 mm to 40 mm size	cum	500.00
2909	Over burnt (Jhama) Brick Aggregate: 90 mm to 40 mm size	cum	480.00
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1150.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1150.00
2914	Solvent	kg	25.00
2916	Paving Asphalt VG 10 of approved quality	tonne	24000.00
3002	Polyvinyl chloride sheet 400 micron thick	sqm	40.00
3004	Stone ware spouts 100 mm dia 60 cm long	each	40.00

Code No.	Description	Unit	Rate ₹
3050	Galvanised steel corrugated sheets	quintal	5600.00
3080	Gunmetal non-return valve - vertical (screwed end) 25 mm dia	each	350.00
3084	Gunmetal non-return valve - vertical (screwed end) 32 mm dia	each	500.00
3088	Gunmetal non-return valve - vertical (screwed end) 40 mm dia	each	700.00
3092	Gunmetal non-return valve - vertical (screwed end) 50 mm dia	each	900.00
3096	Gunmetal non-return valve - vertical (screwed end) 65 mm dia	each	1500.00
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1000.00
3228	600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	250.00
3229	Vitreous china flat back wash basin 550x400 mm	each	545.00
3300	Gunmetal non-return valve - vertical (screwed end) 80 mm dia	each	2500.00
3311	C.I. sluice valve (with caps) class II : 100 mm dia	each	2700.00
3314	C.I. sluice valve (with caps) class II : 125 mm dia	each	3200.00
3317	C.I. sluice valve (with caps) class II : 150 mm dia	each	4000.00
3320	C.I. sluice valve (with caps) class II : 200 mm dia	each	8900.00
3321	C.I. sluice valve (with caps) class II : 250 mm dia	each	14500.00
3326	C.I. sluice valve (with caps) class II : 300 mm dia	each	18200.00
3327	15 mm Battery Based Sensor Pillar Cock	each	5800.00
3617	C.P. Brass union 40mm dia	each	200.00
3620	C.C.I. (spun) socketed soil, waste and vent pipe 1.80 metres long: 100 mm dia	each	1200.00
3621	C.C.I. (spun) socketed soil, waste and vent pipe 1.80 metres long: 75 mm dia	each	1100.00
3624	S.C.I. S&S bends with access door 100 mm dia	each	300.00
3625	S.C.I. S&S bends with access door 75 mm dia	each	250.00
3628	S.C.I. S&S bend 100 mm dia	each	265.00
3629	S.C.I. S&S bend 75 mm dia	each	195.00
3634	S.C.I. S&S heel rest sanitary bend 100 mm dia	each	296.00
3635	S.C.I. S&S heel rest sanitary bend 75 mm dia	each	250.00
3640	S.C.I. S&S single equal junctions 100x100x100 mm	each	472.00
3641	S.C.I. S&S single equal junctions 75x75x75 mm	each	330.00
3644	S.C.I. S&S single equal junctions with access door 100x100x 100 mm	each	495.00
3645	S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	373.00
3650	S.C.I. S&S double equal junctions 100x100x100x100 mm	each	620.00
3651	S.C.I. S&S double equal junctions 75x75x75x75 mm	each	462.00
3654	S.C.I. S&S double equal junctions with access door 100x100x100 mm	each	615.00
3655	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm	each	480.00
3660	S.C.I. S&S single unequal junctions 100x100x75 mm	each	570.00
3664	S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	640.00
3670	S.C.I. S&S double unequal junctions 100x100x75x75 mm	each	800.00
3674	S.C.I. S&S double unequal junctions with access door 100x100x 75x75 mm	each	850.00
3681	S.C.I. S&S single equal invert branch of required degree 100x100x100 mm dia	each	425.00
3682	S.C.I. S&S single equal invert branch of required degree 75x75x 75 mm dia	each	323.00
3685	S.C.I. S&S double equal invert branch of required degree 100x100x100x100 mm dia	each	530.00
3686	S.C.I. S&S double equal invert branch of required degree 75x75x 75x75 mm dia	each	425.00
3690	S.C.I. S&S single unequal invert branch of required degree 100x100x75 mm dia	each	545.00
3695	S.C.I. S&S double unequal invert branch of required degree 100x100x75x75 mm dia	each	725.00

Code No.	Description	Unit	Rate ₹
3699	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	225.00
3707	S.C.I. S&S, 150 mm offset for 75 mm dia pipe	each	285.00
3708	S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	390.00
3712	S.C.I. S&S, 114 mm offset for 75 mm dia pipe	each	300.00
3713	S.C.I. S&S, 114 mm offset for 100 mm dia pipe	each	383.00
3716	S.C.I. S&S, 152 mm offset for 75 mm dia pipe	each	358.00
3717	S.C.I. S&S, 152 mm offset for 100 mm dia pipe	each	455.00
3728	S.C.I. S&S door pieces 100 mm dia	each	400.00
3729	S.C.I. S&S door pieces 75 mm dia	each	295.00
3733	S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	264.00
3734	S.C.I. S&S, Slotted Cowl (Terminal Guard) 75 mm	each	210.00
3738	S.C.I. S&S, collars 100 mm	each	279.00
3739	S.C.I. S&S, collars 75 mm	each	170.00
3746	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	218.00
3747	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	363.00
3749	Vitreous china toilet paper holder of standard size	each	100.00
3860	560 mm dia cover with frame (Heavy duty)	each	9000.00
3861	560 mm dia cover without frame (Heavy duty)	each	5000.00
3991	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for small series casement window/door frame, sash, mullion & small series sliding window frame	metre	66.00
3992	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series casement window/door frame, sash, mullion, big & small series sliding window frame	metre	71.00
3993	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series casement door sash	metre	97.00
3994	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series sliding window / door sash	metre	86.00
3995	G.I fasteners 100 x 8 mm	each	14.00
4001	Stainless steel (Grade-304)hollow section round/square tubes	kg	220.00
4002	Stainless steel bolts/square bar and plates	kg	115.00
4006	Pressed steel door frames (mild steel sheet 1.60 mm) Profile "B"	metre	190.00
4007	Pressed steel door frames (mild steel sheet 1.60 mm) Profile "C"	metre	210.00
4008	Pressed steel door frames (mild steel sheet 1.60 mm) Profile "E"	metre	240.00
4009	Mild steel tubes hot finished welded type	kg	57.00
4010	Mild steel tubes hot finished seamless type	kg	67.00
4011	Mild steel tubes electric resistant or induction butt welded	kg	47.00
4012	Circular C.I. Box for ceiling fan internal dia 140 mm, 73 mm height, toplid of 1.5mm thick MS sheet	each	52.00
4013	Pulley 40 mm dia	each	30.00
4201	Aluminium primer	litre	110.00
4202	Red oxide Zinc chromate primer	litre	110.00
4203	Copper acetate	kg	285.00
4204	Hydrochloric acid	kg	33.00
4205	Copper chloride	kg	270.00
4206	Copper nitrate	kg	210.00
4207	Ammonium chloride	kg	20.00
5001	Mobil oil	litre	315.00
5050	SS pipe 304 grades with press fit technology as per JIS 3448 Standard 48.60 mm outer dia	metre	650.00
5743	Coloured inter locking C.C. paver Block	sqm	480.00
6001	White marble slab Makrana second quality plain veined 18 mm thick	sqm	1430.00
6007	Pink marble slab plain 18 mm thick	sqm	645.00
6010	Udaypur green marble slab plain 18 mm thick	sqm	620.00
6019	Black Zebra marble slab plain 18 mm thick	sqm	900.00
6501	Sand zone V (Jamuna)	cum	1225.00

Code No.	Description	Unit	Rate ₹
7001	Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	210.00
7003	Pair of Anodised Aluminium lever handles for 100 mm mortice latch and lock	each	215.00
7004	Vitreous china flat back wash basin 450x300 mm	each	310.00
7005	Vitreous china 10 litres low level cistern without fittings	each	715.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1240.00
7008	F.P.S. (non modular) clay fly ash bricks class designation 7.5	1000 Nos	4800.00
7009	12.5 mm thick tapered edge gypsum plain board	sqm	155.00
7010	Galvanised Steel ceiling section (size 80x26x0.50 mm)	metre	46.00
7011	Galvanised Steel perimetre Channel (Size 20x27x30x0.50 mm)	metre	22.00
7012	Galvanised Steel intermediate Channel (Size 15x45x15x0.90 mm)	metre	38.00
7013	Galvanised Steel angle hanger (Ceiling angle) (Size 25x10x0.50 mm)	metre	12.00
7014	Galvanised Steel connecting clips (2.64 mm dia and 230 mm long GI wire)	each	4.00
7015	Galvanised Steel soffit cleat (Size 27x37x25x0.60 mm)	each	3.00
7016	Joint filler	kg	26.00
7017	Joint finisher	kg	23.00
7018	Joint tape roll	roll	100.00
7019	Dash fastener / Chemical fastener	each	14.00
7020	All drive screws (for gypsum board)	100 Nos	58.00
7021	Primer (for gypsum board)	litre	85.00
7022	Chlorpyriphos 20% E.C. / Lindane 20% E.C.	litre	150.00
7023	Chromium plated brackets (curtain rods)	each	7.00
7024	Acid Proof cement	tonne	7800.00
7025	Self tapping pan head nickel coated mild steel screws of size 13 x 3.2 mm	1000 Nos	525.00
7026	Fibre joint tape 50 mm wide (90 metre) roll	each roll	165.00
7027	M.S. Butt hinges 125x90x4 mm	10 Nos	105.00
7028	12.5 mm thick Fully Perforated gypsum board	sqm	410.00
7029	Galvanised wire mesh of average width of aperture 1.4 mm and nominal dia of wire 0.63 mm	sqm	250.00
7030	12.5 mm thick tapered edge gypsum fire resistant board	sqm	255
7031	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	275.00
7032	Frosted glass sheet of nominal thickness 4 mm (weighing not less than 10 kg/sqm)	sqm	460.00
7033	Nickel plated M.S. pipe 25 mm dia	metre	76.00
7034	Nickel plated M.S. pipe 20 mm dia	metre	72.00
7035	Nickel plated M.S. Brackets for curtain rod 20 mm	each	7.00
7036	Nickel plated M.S - Brackets for curtain rod 25 mm	each	8.00
7040	Oxidised mild steel screws 35 mm	100 Nos	48.00
7042	Mild steel conduit pipe (heavy type) ISI marked-20 mm dia	metre	42.00
7043	Mild steel conduit pipe (heavy type) ISI marked-25 mm dia	metre	54.00
7044	Rolling shutters of 80x0.90 mm laths	sqm	1300.00
7045	Rolling shutters of 80x1.2 mm laths	sqm	1375.00
7046	Top cover of Rolling shutters 0.90 mm thick	metre	450.00
7047	Top cover of Rolling shutters 1.20 mm thick	metre	560.00
7048	Rawl plug 50 mm (designation 10 nos)	each	25.00
7049	Teak wood lipping of size 25x3 mm in pelmets	metre	14.00
7050	PU Primer	sqm	60.00
7051	40 mm (average) PU spray having 40-45 kg/m3 density	sqm	400.00
7052	GI wire netting 3/4" x 24 G	sqm	26.00
7053	400 G polythene sheet	sqm	14.00
7055	Flat pressed 3 layer and graded particle board (medium density) Grade 1 conforming to IS : 3087 - 18 mm thick	sqm	480.00

Code No.	Description	Unit	Rate ₹
7056	Aluminium tee channel (heavy duty) with rollers and stop end	metre	100.00
7059	Aluminium hanging floor door stopper with twin rubber & stopper	each	40.00
7060	Hydraulic door closer tubular type Aluminium section body	each	560.00
7063	Oxidised M.S.casement stay (straight peg type) 300 mm not less than 0.33 kg	each	35.00
7064	Oxidised M.S.casement stay (straight peg type) 250 mm not less than 0.28 kg	each	30.00
7065	Oxidised M.S. casement stay (straight peg type) 200 mm not less than 0.24 kg	each	25.00
7068	Extra for providing grilled rolling shutters with 8 mm dia M.S. rod	sqm	500.00
7070	Chequered precast cement concrete tiles 22 mm thick using marble chips of size 6mm - Light shade using white cement	sqm	400.00
7071	White marble Raj Nagar plain 18 mm thick upto 0.50 sqm area	sqm	600.00
7072	Wall mounted water closet of size 780 x 370x690 mm	each	6000.00
7073	Adjustable Vitreous China Cistern with fittings of flushing capacity 3 litre/ 6litre 9adjustibla to 4 litre/8litre)	each	1900.00
7074	White Vitreous China Waterless Urinal of size 600x330x315 mm	each	9650.00
7075	Cistern with fittings for Waterless Urinal	each	2290.00
7076	Battery based infrared sensor operated white Vitreous Urinal of approx.size 610x390x370 mm	each	4500.00
7077	Acid and alkali resistant tiles 300x300 mm size, 10 mm thick	10 Nos	520.00
7087	S.C.I. Tee 150 mm	each	570.00
7090	Expanded polystyrene type N- Normal 50 mm thick	sqm	125.00
7091	Expanded polystyrene type - SE 50 mm thick	sqm	150.00
7095	Stainless steel kitchen sink - with drain board bowl depth 250 mm	each	2480.00
7096	Stainless steel kitchen sink - with drain board 510 x 1040 mmbowl depth 225 mm	each	3000.00
7097	Stainless steel kitchen sink - with drain board 510 x 1040 mm bowl depth 200 mm	each	2800.00
7098	Stainless steel kitchen sink - with drain board 510x1040 mm bowl depth 178 mm	each	2500.00
7101	Stainless steel kitchen sink - without drain board 610x510 mm bowl depth 200 mm	each	1800.00
7102	Stainless steel kitchen sink - without drain board 610x460 mm bowl depth 200 mm	each	1200.00
7103	Stainless steel kitchen sink - without drain board 470x420 mm bowl depth 178 mm	each	1050.00
7104	Coloured Orissa pattern W.C. pan 580x440 mm	each	1830.00
7105	Coloured Pedestal type W.C. pan 580x440 mm (European type)	each	860.00
7106	Coloured Vitreous china 10 lit. low level cistern	each	1050.00
7107	Coloured (other than black) solid P.V.C. seat in European W.C. pan	each	390.00
7112	Circular shape 450 mm dia Mirror with Plastic moulded frame	each	430.00
7113	Rectangular shape 453x357 mm Mirror with Plastic moulded frame	each	290.00
7114	Oval shape 450x350 mm (outer dimensions) Mirror with Plastic moulded frame	each	340.00
7115	Rectangular shape 1500x450 mm Mirror with Plastic moulded frame	each	670.00
7116	Hard board 6 mm thick	sqm	115.00
7117	Semi Rigid PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	25.00
7118	Semi Rigid PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	33.00
7119	Flexible (coil shaped) PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	35.00
7120	Flexible (coil shaped) PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	35.00
7121	Bottle Trap	each	620.00
7122	CP Brass Single lever telephonic wall mixer of approved make	each	4500.00

Code No.	Description	Unit	Rate ₹
7123	Coloured High density polyethylene / poly propylene 10 lit. (full flush) capacity controlled low level flushing cistern with fittings	each	550.00
7126	White Vitreous china 10 litre (full flush) capacity controlled low level flushing cistern with all fittings	each	700.00
7127	Coloured Vitreous china 10 litre (full flush) capacity controlled low level flushing cistern with all fittings	each	1150.00
7128	S.W. intercepting trap 100 mm dia	each	185.00
7129	S.W. intercepting trap 150 mm dia	each	240.00
7130	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame - L.D. - 25	each	675.00
7131	Square shape 450x450 mm precast R.C.C. manhole cover with frame - L.D. - 25	each	575.00
7132	Circular shape 450 mm dia precast R.C.C. manhole cover with frame - L.D. - 25	each	575.00
7133	Rectangular shape 500x500 mm precast R.C.C. manhole cover with frame - M.D. - 10	each	670.00
7134	Circular shape 500 mm dia precast R.C.C. manhole cover with frame- M.D.-10	each	575.00
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	880.00
7136	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - E.H.D. - 35	each	1170.00
7137	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of 12 mm thick plain type-I, medium density flat pressed three layer, graded particle board (FPT-I) as per IS:3087 bonded with BWP type synthetic resin adhesive. as per IS:848	sqm	1620.00
7139	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of 12 mm thick both sides prelaminated type-I, medium density flat pressed three layer, graded particle board (FPT-I) as per IS:3087 bonded with BWP type synthetic resin adhesive. as per IS:848	sqm	1720.00
7143	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of 12 mm thick one side prelaminated type-I, and other side balancing lamination, medium density flat pressed three layer, graded particle board (FPT-I) as per IS:3087 bonded with BWP type synthetic resin adhesive, as per IS:848	sqm	1910.00
7151	Factory made 30 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of sheet glass using 10 kg/ sqm glass panes	sqm	1620.00
7154	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of galvanised wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm	sqm	1620.00
7155	Factory made 30 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of galvanised wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm	sqm	1430.00
7157	Laminated veneer lumber confirming to TADS 15:1995 manufactured in factory in frames of doors, windows	10 cudm	700.00
7178	Chemical ASTMC-type I	kg	105.00
7181	C.I. pile shoe	kg	48.00
7182	M.S. clamps for pile shoe of 35 kg per pile	kg	43.00
7183	Bentonite of 35 kg per pile	tonne	2960.00
7184	Oxidised M.S. safety chain (weighing not less than 450 gms) for door	each	57.00
7187	C.I. grating 150 mm dia, weighing not less than 440 gm	each	27.00
7188	U-PVC pipes (working pressure 4 kg / cm ²) Single socketed pipe 75 mm dia	metre	70.00
7189	U-PVC pipes (working pressure 4 kg / cm ²) Single socketed pipe 110 mm dia	metre	130.00

Code No.	Description	Unit	Rate ₹
7190	U-PVC pipes (working pressure 4 kg / cm ²) Rubber (Seal) Ring 75 mm dia	each	8.00
7191	U-PVC pipes (working pressure 4 kg / cm ²) Rubber (Seal) Ring 110 mm dia	each	11.00
7192	uPVC coupler for UPVC drainage pipes 75 mm	each	18.00
7193	uPVC coupler for UPVC drainage pipes 110 mm	each	39.00
7194	uPVC pushfit coupler (single) 75 mm thick	each	18.00
7195	uPVC pushfit coupler (single) 110 mm thick	each	32.00
7196	uPVC single equal Tee (without door) 75x75x75 mm	each	46.00
7197	uPVC single equal Tee (without door) 110x110x110 mm	each	81.00
7198	uPVC single equal Tee (with door) 75x75x75 mm	each	59.00
7199	uPVC single equal Tee (with door) 110x110x110 mm	each	92.00
7208	UPVC bend 87.5° 75 mm bend	each	35.00
7209	UPVC bend 87.5° 110 mm bend	each	59.00
7212	UPVC plain shoe 75 mm bend	each	27.00
7213	UPVC plain shoe 110 mm bend	each	47.00
7214	UPVC pipe clip 75 mm bend	each	15.00
7215	UPVC pipe clip 110 mm bend	each	14.00
7231	Resin Bonded Glass wool 16 kg/m ³ : 50 mm thick	sqm	100.00
7232	Resin Bonded Glass wool 24 kg/m ³ : 50 mm thick	sqm	143.00
7233	Fibre glass tissue reinforcement Type II Grade i	sqm	82.00
7236	Precast chequered cement tiles 22 mm thick Dark shade using ordinary cement	sqm	225.00
7237	Precast chequered cement tiles 22 mm thick medium shade using 50% white cement 50% ordinary cement	sqm	335.00
7238	High Albedo paint	kg	230.00
7239	Epoxy paint	litre	230.00
7240	Fire retardant paint	litre	260.00
7241	Melamine polish	litre	280.00
7244	Table rubbed polished stone 18 mm thick (75x50cm) Agaria Marble stone - 18 mm thick	sqm	1620.00
7245	Table rubbed polished stone 18mm thick (75x50cm) Granite stone- 18 mm thick	sqm	1620.00
7246	Vertical load testing (initial) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification and up to 50 tonne capacity pile	per test	40000.00
7247	Vertical load testing (initial) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & above 50 tonne and up to 100 tonne	per test	45000.00
7248	Vertical load testing (initial) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & group of two or more up to 50 tonne	per test	50000.00
7249	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part-IV) including preparation of pile head etc. for Single pile up to 50 tonne capacity	per test	15000.00
7250	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part-IV) including preparation of pile head etc. for Single pile above 50 tonne capacity pile and up to 100 tonne capacity pile	per test	23000.00
7251	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part-IV) including preparation of pile head etc. for Group of two piles up to 50 tonne capacity each	per test	29500.00

Code No.	Description	Unit	Rate ₹
7252	Lateral load testing of single pile in accordance with IS : 2911 part - IV for determining safe allowable lateral load on pile up to 50 tonne capacity	per test	15000.00
7253	Lateral load testing of single pile in accordance with IS : 2911 part - IV for determining safe allowable lateral load on pile above 50 tonne capacity	per test	23600.00
7254	Hardening compound	litre	38.00
7255	Road marking paint (spirit based)	litre	115.00
7256	Superior quality road marking paint (water based)	litre	135.00
7257	C.P. Brass bibcock 15 mm	each	290.00
7258	C.P. Brass long nose bibcock 15 mm	each	430.00
7259	C.P. Brass long body bibcock 15 mm	each	385.00
7260	C.P. Brass stop cock (concealed) 15 mm	each	430.00
7261	C.P. Brass angle valve 15 mm	each	375.00
7266	Pressed clay tiles 20mm thick 250x250 mm size	1000 Nos	8600.00
7267	Plain ceiling tiles (BWP type phenol formaldehyde synthetic resin bonded) (600x600x12 mm)	each	115.00
7268	Semi perforated ceiling tiles (600x600x12 mm)	each	107.00
7269	25 mm thick particle board	sqm	460.00
7270	30 mm thick prelaminated flush door shutter	sqm	810.00
7271	Second class teak wood lipping 25 mm wide x 12 mm thick	metre	29.00
7272	25 mm thick melamine faced prelaminated three layer particle board	sqm	900.00
7273	Resin Bonded Rockwool 48 kg/m3	sqm	120.00
7274	Glass wool 50 mm thick	sqm	238.00
7280	Waste plastic additive	tonne	40000.00
7281	Chemical ASTMC-type II	kg	165.00
7295	Granite of any colour, 18 mm thick (slab area upto 0.50 sqm)	sqm	1600.00
7296	Granite of any colour, 30 mm thick (slab area upto 0.50 sqm)	sqm	1800.00
7297	Granite of any colour, 18 mm thick (slab area above 0.50 sqm)	sqm	1800.00
7306	Aluminium T or L sections	kg	190.00
7307	For flush door shutters Extra for providing teak veneering on one side instead of commercial veneering	sqm	330.00
7309	Paving Asphalt of grade VG-30 of approved quality	tonne	39570.00
7312	Expandable fastener with plastic sleeve and M.S. screws : 25 mm long	each	10.00
7313	Expandable fastener with plastic sleeve and M.S. screws : 32 mm long	each	10.00
7314	Expandable fastener with plastic sleeve and M.S. screws : 40 mm long	each	13.00
7315	Expandable fastener with plastic sleeve and M.S. screws. 50 mm long	each	14.00
7318	Plasticizer / super plasticizer	kg	36.00
7319	Wall form panel 1250x500 mm	each	860.00
7320	Tie bolt 12 mm dia 100 mm length	each	38.00
7321	Tie bolt 12 mm dia 150 mm length	each	48.00
7322	Tie bolt 20 mm dia 150 mm length	each	57.00
7323	Tie bolt 20 mm dia 225 mm length	each	67.00
7324	Spring coil 12 mm	each	15.00
7325	Plastic cone 12 mm dia	each	17.00
7326	Corner angle 45x45x5 mm 1.50 m long	each	240.00
7327	100 mm channel shoulder 2.5 m long	each	910.00
7328	Double clip (bridge clip)	each	76.00
7329	Single clip	each	59.00
7330	M.S. tube 40 mm dia	metre	215.00
7331	Wall form panel 1250x450 mm	each	860.00
7332	Corner angle 45x45x5 mm 2.50 m long	each	255.00

Code No.	Description	Unit	Rate ₹
7333	Column clamp 450x1070 mm	each	965.00
7334	Prop 2 m (2-3.5 m)	each	635.00
7335	Binding wire	kg	46.00
7336	Lock Bar (E 250) - 10 thick MS Plate	kg	76.00
7338	Gun metal cramp	kg	315.00
7339	Stainless steel cramp	kg	290.00
7340	Stainless steel pin	kg	182.00
7342	Adjustable span ESO+SI (2.35-3.40)	each	1480.00
7343	Adjustable telescopic prop 3 m (2.02-3.75 m)	each	955.00
7344	Beam clamp 300-380 mm (450-1070 mm)	each set	355.00
7345	Prop 4 m	each	910.00
7346	Double coupler	each	46.00
7347	Cadmium plated full threaded steel screws (30x4 mm dia)	100 Nos	27.00
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	10.00
7349	12 mm M.S. 'U' beading	metre	14.00
7354	Plastic encapsulated M.S. foot rest 30x20x15 cm	each	110.00
7358	Flushing Cistern P.V.C. 10 litre capacity (low level) (White) (with fittings, accessories and flush pipe)	each	575.00
7359	P.V.C. automatic flushing cistern 5 litre capacity	each	470.00
7361	P.V.C. automatic flushing cistern 10 litre capacity	each	510.00
7363	15 mm C.P. brass tap with elbow operation lever	each	430.00
7364	White glazed fire clay draining board 600x450x25 mm	each	525.00
7366	Glass reinforced Gypsum (GRG) board 12.5 mm thick	sqm	240.00
7367	Galvanised M.S. sheet 0.5 mm thick pressed channel section of size 50x32 mm	metre	57.00
7368	GFRG Panel of 124 mm thick	sqm	847.46
7369	Galvanised M.S. sheet 0.50 mm thick pressed stud : 48x34x36 mm	metre	71.00
7375	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Single lipped urinal	each	445.00
7376	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of two lipped urinals	each	765.00
7377	G.i. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of three lipped urinals	each	1050.00
7378	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of four lipped urinals	each	1430.00
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS:2556	each	865.00
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	620.00
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	235.00
7382	Bitumen emulsion rapid setting (R.S.) confirming to IS : 8887	tonne	19000.00
7383	12 mm dia 50 mm long wedge type expanded zinc alloy dash fastener	each	7.00
7385	3 mm thick translucent white acrylic plastic sheet	sqm	550.00
7386	12 mm thick particle board ceiling tile	sqm	110.00
7387	Spigot for standard jointing	kg	43.00
7388	Dash hold fastener 12.5 mm dia, 50 mm long with 6 mm dia bolt	each	11.00
7389	Anodising 15 microns on aluminium sections	kg	38.00
7390	EPDM Gasket for uPVC window/door	metre	19.00
7391	Anodising 25 microns on aluminium sections	kg	48.00
7392	Powder coating 50 microns on aluminium sections	kg	61.00
7393	Polyester powder coating 50 microns on aluminium sections	kg	67.00
7394	Double action hydraulic floor spring with stainless steel cover plate	each	1500.00
7395	6 mm dia G.I. adjustable hangers including clips (up to 1.2 m length)	each	20.00
7396	Double action hydraulic floor spring with brass cover plate	each	1620.00
7397	Base Jack	each	145.00

Code No.	Description	Unit	Rate ₹
7398	Challies	each	765.00
7399	Cup locks	each	48.00
7400	15 mm PTMT bib cock	each	71.00
7401	15 mm PTMT bib cock with flange (fancy)	each	105.00
7402	15 mm PTMT bib cock long body with flange	each	116.00
7403	15 mm dia PTMT stop cock (male thread)	each	71.00
7405	20 mm dia PTMT stop cock	each	97.00
7406	PTMT pillar cock	each	125.00
7407	PTMT push cock 15 mm dia	each	62.00
7408	PTMT push cock 12 mm dia 20 mm BSP	each	57.00
7409	PTMT grating 100 mm dia	each	20.00
7410	PTMT Pillar cock (fancy) 15 mm foam flow	each	138.00
7411	125 mm grating with waste hole	each	30.00
7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia (110 gm)	each	118.00
7415	Double acting air valve 50 mm	each	3715.00
7416	Double acting air valve 80 mm	each	4525.00
7417	Double acting air valve 100 mm	each	5910.00
7418	Water meter (including testing charges) 80 mm	each	2030.00
7419	Water meter (including testing charges) 100 mm	each	3143.00
7420	Water meter (including testing charges) 150 mm	each	4765.00
7421	Water meter (including testing charges) 200 mm	each	5145.00
7422	Dirt box strainer 80 mm	each	2680.00
7423	Dirt box strainer 100 mm	each	4370.00
7424	Dirt box strainer 150 mm	each	5540.00
7425	Dirt box strainer 200 mm	each	7860.00
7426	Cat's eye	each	100.00
7427	Water stops Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	200.00
7428	Water stops Dumb bell with central bulb	metre	160.00
7429	Kickers	metre	185.00
7430	Wedge expansion hold fastener 1/4" or 6 mm	each	11.00
7431	Wedge expansion hold fastener 3/8" or 10 mm	each	11.00
7432	Wedge expansion hold fastener 1/2" or 12 mm	each	27.00
7439	8mm thick (mirror polished tiles machine cut edge) Raj Nagar white	sqm	500.00
7442	Wheel 75 mm dia. 40 mm wide	each	62.00
7443	Aluminium single cleat of size 30x32x3 mm	each	14.00
7444	Aluminium grip strip of size 50x12x2 mm	each	11.00
7445	25 mm thick prelaminated flush door shutter both side decorative	sqm	800.00
7449	Aluminium U beading	kg	210.00
7451	Glass sheet (Pin headed) 4 mm thick	sqm	305.00
7452	Raj nagar plain white marble (table rubbed and polished) 18 mm thick (slab area upto 0.50 sqm)	sqm	575.00
7453	Raj nagar plain white marble (table rubbed and polished) 18 mm thick (slab area more than 0.50 sqm)	sqm	690.00
7466	Second class deodar teak wood lipping 30 mm wide x 12 mm thick	metre	24.00
7468	Veneered particle board with commercial veneering on both sides 12 mm thick	sqm	500.00
7477	Prelaminated particle board with one side decorative and other side balancing lamination, flat pressed 3 layer & graded (medium density) Grade i, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	540.00
7478	Prelaminated particle board with one side decorative and other side balancing lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 18 mm thick	sqm	650.00

Code No.	Description	Unit	Rate ₹
7479	Prelaminated particle board with one side decorative and other side balancing lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 25 mm thick	sqm	900.00
7480	Prelaminated particle board with both sides decorative lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	575.00
7485	Oxidised M. S. hinges finished with nickel plating 50 mm (Over all width)		40.00
7486	Oxidised M. S. hinges finished with nickel plating 65 mm (Over all width)		52.00
7491	PTMT - Waste Coupling 31/32 mm	each	34.00
7492	PTMT - Waste Coupling 38/40 mm	each	48.00
7493	PTMT - Bottle Trap 31/32 mm	each	210.00
7494	PTMT - Bottle Trap 38/40 mm	each	220.00
7495	PTMT Ball Cock 15mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	100.00
7496	PTMT Ball Cock 20mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	135.00
7497	PTMT Ball Cock 25mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	290.00
7498	PTMT Ball Cock 40mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	480.00
7499	PTMT Ball Cock 50mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	870.00
7500	PTMT Angle Stop cock with Flange 15 mm	each	100.00
7501	PTMT Swiveling shower 15 mm	each	70.00
7503	PTMT Liquid Soap Container of 400 ml capacity	each	105.00
7504	PTMT - Towel Ring 215x200x37 mm	each	130.00
7505	PTMT - Towel Rail (450 mm long)	each	135.00
7506	PTMT - Towel Rail (600 mm long)	each	165.00
7507	PTMT Shelf 450x124x36 mm	each	200.00
7508	PTMT - Urinal Spreader 15 mm	each	76.00
7509	PTMT Soap Dish/Holder 138x102x75 mm	each	84.00
7512	PTMT handle 125x34x24 mm	each	24.00
7513	PTMT handle 150x34x24 mm	each	24.00
7514	PTMT butt hinges 75x60x10 mm	each	33.00
7515	PTMT butt hinges 100x75x10 mm	each	43.00
7516	PTMT Tower bolt 152x42x18 mm	each	48.00
7517	PTMT Tower bolt 202x42x18 mm	each	67.00
7518	PTMT door catcher 72x42 mm	each	24.00
7552	Coir veneered board 4 mm thick	sqm	290.00
7553	Coir veneered board 6 mm thick	sqm	385.00
7555	Coir veneered board 12 mm thick	sqm	670.00
7556	Coir veneered board 18 mm thick	sqm	1000.00
7621	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe)	metre	700.00
7622	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 75 mm dia (3000 mm length pipe)	metre	570.00
7623	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 100 mm dia	each	230.00
7624	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 75 mm dia	each	160.00
7625	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 100x100x100x100 mm dia	each	510.00
7626	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 75x75x75x75 mm dia	each	275.00
7627	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 100x100x100 mm dia	each	400.00

Code No.	Description	Unit	Rate ₹
7628	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 75x75x75 mm dia	each	215.00
7629	Hubless centrifugally cast (spun) iron double unequal plain junction as per IS 15905 - 100x100x75x75 mm dia	each	400.00
7630	Hubless centrifugally cast (spun) iron single unequal plain junction as per IS 15905 - 100x100x75 mm dia	each	375.00
7631	Hubless centrifugally cast (spun) iron double equal plain invert branch as per IS 15905 - 100x100x100x100 mm dia	each	625.00
7632	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	390.00
7633	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	260.00
7634	Hubless centrifugally cast (spun) iron single unequal plain invert branch 45 degree as per IS 15905 - 100x100x75 mm dia	each	430.00
7635	Hubless centrifugally cast (spun) iron 65 mm offset with 100 mm dia pipe as per IS 15905	each	360.00
7636	Hubless centrifugally cast (spun) iron 65 mm offset with 75 mm dia pipe as per IS 15905	each	295.00
7637	Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	440.00
7638	Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	310.00
7639	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per IS 15905	each	365.00
7640	Hubless centrifugally cast (spun) iron bend with access door - 75 mm dia as per IS 15905	each	290.00
7641	Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) - 100 mm dia as per IS 15905	each	270.00
7642	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 100 mm outlet as per IS 15905	each	540.00
7643	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 75 mm outlet as per IS 15905	each	385.00
7644	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia Hubless centrifugally cast (spun) iron	each	275.00
7645	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia Hubless centrifugally cast (spun) iron	each	250.00
7651	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 100 mm dia	metre	765.00
7652	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 150 mm dia	metre	1150.00
7653	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 200 mm dia	metre	1575.00
7654	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 250 mm dia	metre	2200.00
7655	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 300 mm dia	metre	2750.00
7656	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 350 mm dia	metre	3350.00
7657	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 400 mm dia	metre	4300.00
7658	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 450 mm dia	metre	5000.00
7659	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 500 mm dia	metre	6270.00
7660	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 600 mm dia	metre	7560.00
7661	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 700 mm dia	metre	10500.00
7662	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 750 mm dia	metre	11350.00
7663	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 800 mm dia	metre	11450.00
7664	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 900 mm dia	metre	13900.00
7665	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 1000 mm dia	metre	15550.00
7666	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 100 mm dia	each	29.00
7668	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 150 mm dia	each	36.00
7669	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 200 mm dia	each	63.00
7670	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 250 mm dia	each	74.00

Code No.	Description	Unit	Rate ₹
7671	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 300 mm dia	each	110.00
7672	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 350 mm dia	each	126.00
7673	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 400 mm dia	each	230.00
7674	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 450 mm dia	each	270.00
7675	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 500 mm dia	each	290.00
7676	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 600 mm dia	each	365.00
7677	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 700 mm dia	each	550.00
7678	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 750 mm dia	each	660.00
7679	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 800 mm dia	each	725.00
7680	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 900 mm dia	each	960.00
7681	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 1000 mm dia	each	1145.00
7682	Ductile Iron K - 12 specials suitable for push on jointing up to 600 mm dia	quintal	12400.00
7683	Ductile Iron K - 12 specials suitable for push on jointing over 600 mm dia	quintal	17200.00
7684	Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 - up to 600 mm dia	quintal	13050.00
7685	Ductile Iron Specials suitable for mechanical jointing as per I.S. 9523 over 600 mm dia	quintal	18750.00
7686	Ductile Iron Pipe Class K-9 flanges and welding 100 mm dia	metre	1100.00
7687	Ductile Iron Pipe Class K-9 flanges and welding 150 mm dia	metre	1650.00
7688	Ductile Iron Pipe Class K-9 flanges and welding 200 mm dia	metre	2075.00
7689	Ductile Iron Pipe Class K-9 flanges and welding 250 mm dia	metre	2950.00
7690	Ductile Iron Pipe Class K-9 flanges and welding 300 mm dia	metre	3790.00
7691	Ductile Iron Pipe Class K-9 flanges and welding 350 mm dia	metre	4780.00
7692	Ductile Iron Pipe Class K-9 flanges and welding 400 mm dia	metre	6150.00
7693	Ductile Iron Pipe Class K-9 flanges and welding 450 mm dia	metre	6453.00
7694	Ductile Iron Pipe Class K-9 flanges and welding 500 mm dia	metre	9180.00
7695	Ductile Iron Pipe Class K-9 flanges and welding 600 mm dia	metre	12150.00
7696	Ductile Iron Pipe Class K-9 flanges and welding 700 mm dia	metre	14370.00
7697	S&S Centrifugally (Spun) C.I. Pipe class LA 100 mm dia	metre	857.00
7698	S&S Centrifugally (Spun) C.I. Pipe class LA 125 mm dia	metre	1067.00
7699	S&S Centrifugally (Spun) C.I. Pipe class LA 150 mm dia	metre	1286.00
7700	S&S Centrifugally (Spun) C.I. Pipe class LA 200 mm dia	metre	2190.00
7701	S&S Centrifugally (Spun) C.I. Pipe class LA 250 mm dia	metre	2857.00
7702	S&S Centrifugally (Spun) C.I. Pipe class LA 300 mm dia	metre	3857.00
7703	S&S Centrifugally (Spun) C.I. Pipe class LA 350 mm dia	metre	4619.00
7704	S&S Centrifugally (Spun) C.I. Pipe class LA 400 mm dia	metre	6095.00
7705	S&S Centrifugally (Spun) C.I. Pipe class LA 450 mm dia	metre	7381.00
7706	S&S Centrifugally (Spun) C.I. Pipe class LA 500 mm dia	metre	8571.00
7707	S&S Centrifugally (Spun) C.I. Pipe class LA 600 mm dia	metre	11995.00
7708	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing up to 300 mm dia	quintal	5190.00
7709	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing over 300 mm dia	quintal	6200.00
7710	S&S Centrifugally (Spun) C.I. Pipe specials suitable for mechanical joint as per I.S. 13382 up to 300 mm dia	quintal	8571.00

Code No.	Description	Unit	Rate ₹
7711	S&S Centrifugally (Spun) C.I. Pipe Specials suitable for mechanical joint as per I.S. 13382 over 300 mm dia	quintal	9048.00
7712	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 100 mm dia	metre	1310.00
7713	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 150 mm dia	metre	2048.00
7714	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 200 mm dia	metre	3238.00
7715	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 250 mm dia	metre	3905.00
7716	Screwed double flanged centrifugally cast (spun) C.I. Pipe of ClassB conforming to I.S. 1536, - 300 mm dia	metre	4990.00
7717	Screwed double flanged centrifugally cast (spun) C.I. Pipe of ClassB conforming to I.S. 1536, - 350 mm dia	metre	6286.00
7718	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 400 mm dia	metre	8143.00
7719	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 450 mm dia	metre	10381.00
7720	Screwed double flanged centrifugally cast (spun) C./. Pipe of Class B conforming to I.S. 1536, - 500 mm dia	metre	12914.00
7721	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 600 mm dia	metre	17905.00
7722	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 100 mm dia	metre	800.00
7723	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 150 mm dia	metre	1140.00
7724	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 200 mm dia	metre	1400.00
7725	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 250 mm dia	metre	1800.00
7726	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 300 mm dia	metre	2250.00
7727	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 350 mm dia	metre	2650.00
7728	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 400 mm dia	metre	3175.00
7729	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 450 mm dia	metre	3852.00
7730	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 500 mm dia	metre	4350.00
7731	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 600 mm dia	metre	5600.00
7732	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 700 mm dia	metre	7300.00
7733	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 800 mm dia	metre	9100.00
7734	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 900 mm dia	metre	11800.00
7735	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 1000 mm dia	metre	12300.00
7736	Extruded burnt flyash clay sewer bricks conforming to I.S 4885	1000 Nos	5400.00
7737	Fly ash bricks conforming to I.S. 12894	1000 Nos	4300.00
7738	Calcium Silicate Bricks machine moulded conforming to I.S. 4139	1000 Nos	5400.00
7739	Modified Bitumen Refinery produced CRMB - 55	tonne	29995.00
7741	Modified Bitumen Refinery produced CRMB - 60	tonne	30536.00
7742	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887	tonne	27909.00
7743	M.S. pipe 150 mm dia casing pipe	metre	1126.00
7744	M.S. pipe 200 mm dia casing pipe	metre	1400.00
7745	PVC blind pipe 150 mm dia as per IS: 12818	metre	508.62
7746	PVC blind pipe 200 mm dia as per IS: 12818	metre	788.12
7747	M.S. cap 150 mm dia	each	150.00
7748	M.S. cap 200 mm dia	each	200.00
7749	M.S bail plug 150 mm dia	each	200.00
7750	M.S bail plug 200 mm dia	each	220.00
7751	PVC slotted pipe 150 mm dia as per IS: 12818	metre	550.00
7752	PVC slotted pipe 200 mm dia as per IS: 12818	metre	840.00
7753	Stone Boulder 50 mm to 200 mm	cum	850.00
7754	Gravel 5 mm to 10 mm	cum	850.00
7755	Gravel 1.5 mm to 2 mm	cum	850.00
7756	Gravel 3 mm to 6 mm	cum	850.00
7757	M.S. pipe 100 mm dia casing pipe	metre	800.00

Code No.	Description	Unit	Rate ₹
7758	uPVC blind pipe 100 mm dia as per IS: 12818	metre	442.00
7759	uPVC slotted pipe 100 mm dia as per IS: 12818	metre	480.00
7760	M.S. cap 100 mm dia	each	135.00
7761	M.S. bail plug 100 mm dia	each	160.00
7762	Precast R.C.C. perforated slab	each	875.00
7763	Water supply tanker of 5000 litre capacity	each	900.00
7764	M.S. socket 100 mm dia	each	125.00
7765	M.S. socket 150 mm dia	each	205.00
7766	M.S. socket 200 mm dia	each	265.00
7767	Stone cleaning chemical approved by ASI	litre	295.00
7768	Water repellent chemical approved by ASI	litre	1200.00
7769	Stone surface strengthening chemical approved by ASI	litre	900.00
7770	Turpentine oil	litre	55.00
7771	Liquid Ammonia 5%	litre	160.00
7772	Pea Gravel	cum	950.00
7773	Coloured inter locking C.C. paver Block (60 mm thick, M-35)	sqm	450.00
7774	Stone size 10x10x7.50cm	each	10.00
7775	Sodium pentachlorophenate	kg	550.00
7776	Concrete paver block of grade M-30 made of C&D waste (60mm thickness)		317.22
7800	Ceramic Glazed Tiles 1st quality minimum thickness 5mm in all colours shades and designs except burgundy, bottle green, black	sqm	212.00
7801	Ceramic Glazed Tiles 1st quality 300 x 300 mm in all shades and designs of White, Ivory, grey, Fume Red brown etc.	sqm	209.10
7802	Ceramic Glazed Tiles 1st quality 300 x 300 in all shades designs except White, Ivory, Grey, Fume Red Brown etc.	sqm	260.00
7803	Rectified Ceramic Glazed Tiles 1st quality 300 x 300 mm or more in all shades designs White, Ivory, Grey, Fume Red Brown etc.	sqm	340.00
7804	Rectified Ceramic Glazed Tiles 1st quality 300 x 300 mm or more in all shades designs except White, Ivory, Grey, Fume Red Brown etc.	sqm	400.00
7805	Salem Stainless steel AISI - 304 (18/8) Orrisa pattern W.C. pan 724 mm X 578 mm	each	4500.00
7806	Salem Stainless steel AISI - 304 (18/8) Round basin 405mm X 355 mm	each	1500.00
7807	Salem Stainless steel AISI - 304 (18/8) Wash basin 530mm X 345 mm	each	2000.00
7808	Centrifugally cast (spun) iron S&S 100 mm inlet and 100 mm outlet	each	450.00
7809	Centrifugally cast (spun) iron S&S 100 mm inlet and 75 mm outlet	each	500.00
7850	Agaria White marble slab plain 18 mm thick	sqm	1100.00
7857	P.T.M.T. Grating square slit 150 mm	each	66.75
7858	P.T.M.T. Urinal cock 15 mm dia	each	106.50
7859	P.T.M.T. Bib cock with nozzle 15 mm	each	154.50
7861	P.T.M.T. Stop cock (concealed) 15 mm	each	133.50
7862	15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T. Nuts	each	46.50
7863	15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T. Nuts	each	57.00
7864	P.T.M.T. extension nipple 15 mm dia	each	30.00
7865	P.T.M.T. extension nipple 20 mm dia	each	54.00
7866	P.T.M.T. extension nipple 25 mm dia	each	78.00
7893	Tactile tile	sqm	1000.00
7895	Matt finished vitrified tile 100x100 x16 mm	sqm	1000.00
7896	Vitrified tile	sqm	500.00
7900	Modular common burnt clay bricks of class designation 7.5	1000 Nos	4000.00
7901	Machine moulded perforated common burnt clay FPS (non modular) bricks of class designation 12.5	1000 Nos	4700.00
7902	Machine moulded common burnt clay modular perforated bricks of class designation 12.5	1000 Nos	5200.00

Code No.	Description	Unit	Rate ₹
7903	Machine moulded common burnt clay FPS (non modular) bricks of class designation 12.5	1000 Nos	5000.00
7904	Machine moulded common burnt clay tile bricks of class designation 12.5	1000 Nos	4900.00
7911	Chemical Rust Remover	litre	210.00
7912	Hire charges of Drill machine upto 30 mm dia	day	160.00
7913	Epoxy	kg	585.00
7914	SBR Polymer	kg	190.00
7915	Woven PVC cloth	sqm	25.00
7916	Hire charges of sand blasting equipment	day	420.00
7917	Hire charges of compressor	day	645.00
7918	25mm thick cement concrete shotcrete(guniting) with compressor	sqm	105.00
7919	50mm thick cement concrete shotcrete(guniting) with compressor	sqm	160.00
7920	75mm thick cement concrete shotcrete(guniting) with compressor	sqm	266.00
7921	Adhesive chemical	ml	2.00
7922	Bit of drilling machine for Hole upto 30mm dia	each	500.00
7923	GI injection nipple 12mm dia, 75mm long	each	42.00
7924	Blowing compressed air for cleaning holes upto 30mm dia	each	10.00
7925	L shaped 100mm long, 10mm dia mild steel shear key	kg	67.00
7926	Welding charges of shear key to existing reinforcement	each	2.00
7927	Acrylic Polymer chemical for cracks	kg	31.00
7928	Hire charges of Plant and machinery, it can inject - 350kg/day	day	100.00
7929	Shear loops (6mm dia GI wire rope) (For vertical joints) 6 nos on each side	each	192.00
7930	dowel tubes (Corrugated GI pipes 50 to 80mm dia) (For horizontal joints)	metre	120.00
7931	Hooks for lifting (Alloy steel) having 2.5 tonne capacity	each	250.00
7996	Factory made EPS light weight composite sandwiched wall/roof panel (50mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	735.25
7997	Factory made EPS light weight composite sandwiched wall/roof panel (60mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	845.00
7998	Factory made EPS light weight composite sandwiched wall/roof panel (75mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	1047.46
7999	Factory made EPS light weight composite sandwiched wall/roof panel (90mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	1268.00

Code No.	Description	Unit	Rate ₹
8000	Factory made EPS light weight composite sandwitched wall/roof panel (100mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	1512.37
8001	24 mm thick Factory made shutters with style, rails and panels of PVC extruded sections in white, grey or wooden finish	sqm	1085.93
8002	30 mm thick Factory made shutters with style, rails and panels of PVC extruded sections in white, grey or wooden finish	sqm	1248.82
8003	Factory made PVC rigid foam panelled shutter i/c carriage	sqm	1547.45
8004	Factory made PVC rigid foam panelled shutter as per IS : 4020 i/c carriage	sqm	1547.45
8006	Factory made PVC rigid foam sheet 1 mm thick	sqm	155.80
8007	Factory made PVC rigid foam sheet 5 mm thick	sqm	632.00
8008	Factory made prelaminated PVC rigid foam sheet 5 mm thick	sqm	752.00
8010	48mmX40mmX1.5mm thick Factory made door frame of PVC extruded sections in white, grey or wooden finish	metre	125.79
8011	Factory made door frame PVC extruded sheet i/c carriage	metre	251.58
8012	Adhesive solvent cement	kg	140.00
8013	Factory made EPS Core wallpanel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh,with 50 mm pitch in both the directions, kept at 120-135 mm gap and interconnected by the zig zag G.I. wire of 3 mm dia at alternate row bv welding.	sqm	1650.00
8014	Factory made door frame of size 50x47 mm with wall thickness 5 mm made of single piece extruded profile	metre	298.74
8015	Expanded poly ethylene Foam sheet 4mm thick of Density 40kg/m3	sqm	18.00
8016	High Density expanded poly ethylene (EPE) Foam 1mm thick	sqm	8.50
8017	Fire rated door frame made with 1.6 mm thick G.I sheet (120 minutes fire rating)	metre	1000.00
8018	Fire rated door shutter made with 1.6 mm thick G.I sheet (120 minutes fire rating) including hinges (without glass panels)	sqm	5000.00
8019	GI sheet 0.8 mm thick confirming to IS 277:1992	kg	75.00
8020	Factory made EPS Core wall panel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh, with 50 mm pitch in both the directions, connected by G.I. wire of 3mm dia at alternate row bv welding	sqm	600.00
8021	Bamboo wood Tile Flooring 14mm thick of minimum size 1800mm x 130mm	sqm	3470.00
8022	Bamboo wood Quarter Round 18mm thick of size 1900mm x 18mm	metre	112.00
8023	Bamboo wood door reducer 14mm thick of size 1900mm x 44mm	metre	255.00
8024	Bamboo wood Skirting 14mm thick of Size 1900mm x 85mm	sqm	300.00
8025	Bamboo wood Tile Wall Cladding 10mm thick of size 1900mm x 135mm	sqm	3385.00
8026	Bamboo wood T-mold 14mm thick of size 1900mm x 44mm	metre	250.00
8027	Bamboo wood Threshold 14mm thick of size 1900mm x 44mm	metre	255.00
8028	Bamboo wood shutter of doors	10 cudm	1700.00
8029	Bamboo wood panelling (10mm thick)	10 cudm	1680.00
8030	Superior class Bamboo wood door frame 65 mm thick,	10 cudm	1675.00
8031	Aluminium sheets Grade 5052, 4 mm thick for wall panel/deck panel/ WRB panel/Kicker Panels/door closing panels (for form work)	sqm	8500.00
8032	Aluminium sheets Grade 5052, 4 mm thick for Internal Corner/ Column Corners/ (for form work)	sqm	11500.00
8033	Aluminium sheets Grade 5052, 4 mm thick for Mid Soldier/End soldier (for form work)	sqm	32000.00

Code No.	Description	Unit	Rate ₹
Accessories for aluminium form work			
8034	External corner 2050 mm	each	1400.00
8035	External corner 825 mm	each	590.00
8036	soldier tie 370mm	each	290.00
8037	Adjustable prop-2.0 x2.0 m	each	1080.00
8038	Pin-50	each	15.00
8039	Pin-127	each	55.00
8040	wedge	each	14.00
8041	wall tie-150 (355 mm)	each	45.00
8042	Polythene Sleeve 90 x 150mm	each	3.00
8043	Polythene Roll - 150mm Long.	each	6.00
8044	Vertical Soldier -1100mm	each	365.00
8045	Wall Attached Bracket 600x1000mm	each	985.00
8046	Alignment Pipe - 3.00 Mtr.	each	995.00
8047	Alignment Bracket	each	475.00
8048	Tie Rod for Bracket - 500mm	each	115.00
8049	Anchor Wing Nut Ø100 mm	each	64.00
8050	Debit Pin - 250mm	each	60.00
8051	PVC Pipe Ø20mm - 150mm long	each	5.00
8052	PVC Cone	each	5.00
8053	Bolt+Nut - 16 x 80 mm	each	30.00
8054	Flat Washer Ø16, 3mm thik	each	5.00
8055	Bolt+Nut - 16 x 30 mm	each	18.00
8056	Door spacer 45x45x5-1135mm Long	each	360.00
8057	Door spacer 45x45x5 - 985mm long	each	315.00
8100	Powder coated M.S. butt hinges 100 mm X58 mmX1.9 mm	10 Nos	123.00
8101	SS ball bearing of size 100 x89x3mm	each	450.00
8116	Zinc alloy (white powder coated) 3D Hinges for uPVC door	each	451.00
8117	Zinc alloy (white powder coated) handles with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key for uPVC casement door	each set	2296.00
8118	Zinc alloy (white powder coated) handles along with zinc plated mild steel multi point locking having transmission gear with keeps for uPVC sliding window	each set	1394.00
8119	Zinc alloy (white powder coated) handles with key along with zinc plated mild steel multi point locking having transmission gear with keeps for uPVC sliding door	each set	1150.00
8121	uPVC extruded (small series) casement window frame size 47x50mm	metre	258.30
8122	uPVC extruded (small series) casement window sash/window mullion size 47x68 mm	metre	282.90
8125	uPVC extruded glazing bead of appropriate dimension for small series casement window Sash	metre	98.40
8126	uPVC extruded (big series) casement window frame size 67x60 mm	metre	319.80
8127	uPVC extruded (big series) casement door frame size 67x64 mm	metre	360.80
8128	uPVC extruded (big series) casement window sash/window mullion/ door mullion size 67x80 mm	metre	426.40
8129	uPVC extruded (big series) casement door sash size 67x110 mm	metre	516.60
8130	uPVC extruded glazing bead of appropriate dimension for big series casement window/door sash	metre	123.00
8131	uPVC extruded glazing bead of appropriate dimension for small series sliding window sash	metre	60.00
8132	uPVC extruded glazing bead of appropriate dimension for big series of sliding window/ door sash	metre	85.00
8133	uPVC extruded (small series) 2 track sliding window frame size 52x 44 mm	metre	285.00

Code No.	Description	Unit	Rate ₹
8134	uPVC extruded (big series) 2 track sliding window/door frame size 67x 50mm	metre	385.00
8135	uPVC extruded (small series) 3 track sliding window frame size 92x 44 mm	metre	380.00
8136	uPVC extruded (big series) 3 track sliding window/door frame size 116x45mm	metre	530.00
8137	uPVC extruded (small series) 2 track sliding window sash/3 track sliding window sash size 32x60mm	metre	265.00
8138	uPVC extruded (big series) 2 track sliding window sash size 46x62mm	metre	325.00
8139	uPVC extruded (big series) 3 track sliding window sash size 46x62mm	metre	325.00
8140	uPVC extruded interlock of appropriate dimension for small series sliding window sash	metre	80.00
8141	uPVC extruded interlock of appropriate dimension for big series sliding window/ door sash	metre	90.00
8142	uPVC extruded inline adaptor of appropriate dimension for big series sliding window/door sash	metre	90.00
8143	uPVC extruded 2 track sliding door sash/ 3 track sliding door sash (big series) size 46x82mm	metre	350.00
8144	Bamboo Mat corrugated sheets 3.5 to 4mm thick conforming to IS 15476:2004	sqm	2648.00
8145	Bamboo Mat Ridge cap 3.5 to 4mm thick conforming to IS 15476:2004	metre	2570.00
8146	3mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	1508.00
8147	4mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	1738.00
8148	6mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	2098.00
8149	9mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	2688.00
8150	12mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	3115.00
8200	A.P.P. modified polymeric felt (two layers) 1.5 mm thick	sqm	80.00
8201	A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	100.00
8203	A.P.P. modified 2 mm thick membrane reinforced with glass fibre matt	sqm	126.67
8204	A.P.P. modified 3 mm thick membrane reinforced with glass fibre matt	sqm	190.00
8205	A.P.P. modified 3 mm thick membrane reinforced with polyester matt	sqm	205.00
8206	Bitumen primer for bitumen membrane	litre	80.00
8207	Geotextile 120 grams per sqm membrane	sqm	45.00
8210	Stainless steel screws 50 mm	100 Nos	270.00
8211	Stainless steel screws 40 mm	100 Nos	215.00
8212	Stainless steel screws 30 mm	100 Nos	190.00
8214	Stainless steel screws 20 mm	100 Nos	125.00
8215	Stainless steel butt hinges 125x64x1.9 mm IS : 12817 marked	10 Nos	265.00
8216	Stainless steel butt hinges 100x58x1.9 mm IS : 12817 marked	10 Nos	235.00
8217	Stainless steel butt hinges 75x47x1.8 mm IS : 12817 marked	10 Nos	160.00
8218	Stainless steel butt hinges 50x37x1.5 mm IS : 12817 marked	10 Nos	135.00
8219	Stainless steel butt hinges (heavy weight) 125x64x2.5 mm IS : 12817 marked	10 Nos	350.00
8220	Stainless steel butt hinges (heavy weight) 100x60x2.5 mm IS : 12817 marked	10 Nos	255.00
8221	Stainless steel butt hinges (heavy weight) 75x50x2.5 mm IS : 12817 marked	10 Nos	205.00
8222	M.S. heavy weight butt hinges 125x90x4.0 mm IS: 1341 marked.	10 Nos	210.00
8223	M.S. heavy weight butt hinges 100x75x3.5 mm IS: 1341 marked	10 Nos	160.00
8224	M.S. heavy weight butt hinges 75x60x3.1 mm IS: 1341 marked	10 Nos	95.00
8225	M.S. heavy weight butt hinges 50x40x2.5 mm IS : 1341 marked	10 Nos	80.00
8226	Concealed zinc coated hinges 19-20 mm thick with mounting plate	10 Nos	420.00
8300	1216 mm PE-AL-PE Composite pressure pipe	metre	62.00

Code No.	Description	Unit	Rate ₹
8301	1620 mm PE-AL-PE Composite pressure pipe	metre	78.00
8302	2025 mm PE-AL-PE Composite pressure pipe	metre	110.00
8303	2532 mm PE-AL-PE Composite pressure pipe	metre	157.00
8304	3240 mm PE-AL-PE Composite pressure pipe	metre	235.00
8305	4050 mm PE-AL-PE Composite pressure pipe	metre	330.00
8306	PPR Union 20 mm	each	48.00
8307	PPR Union 25 mm	each	97.00
8308	PPR Union 32 mm	each	137.20
8309	PPR Union 40 mm	each	184.80
8310	PPR Union 50 mm	each	352.80
8311	PPR Union 63 mm	each	483.60
8312	PPR Union 75 mm	each	933.00
8500	Water for jetting / blowback	1000 litre	1500.00
8501	Polymer modified cementation coating	kg	140.00
8502	Fibre glass cloth	sqm	25.00
8504	Multi surface paint	litre	255.00
8505	Acrylic exterior paint	litre	170.00
8506	Premium Acrylic exterior paint	litre	180.00
8507	Textured exterior paint	litre	240.00
8508	Primer for cement paint	litre	79.00
8509	Special Primer (C.W.)	litre	140.00
8510	Metal Primer (U.G.)	litre	90.00
8511	Fibre reinforced elastomeric liquid water proofing membrane	litre	198.69
8512	Cementitious water proofing coating with elastic polymers	kg	189.13
8513	Acrylic modified resin based texture	kg	36.00
8514	40 mm long S.S screws with plastic rawl plugs	each	40.00
8515	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	31.00
8516	ZMB 60/equivalent	kg	105.00
8517	ZMB thinner	litre	205.00
8518	Zycoprime / equivalent	litre	210.00
8519	Zycosil / equivalent	litre	1800.00
8520	Elastobar / equivalent	kg	300.00
8552	Mineral fibre beveled tegular edged ceiling tiles 595 x595mm,16 mm thick	sqm	830.00
8553	Mineral fibre beveled tegular edged ceiling tiles 595 x595mm,16 mm thick with bio-block conforming to ISO 5 (class 100) specifications.	sqm	920.00
8554	Mineral fiber beveled tegular edged ceiling tiles 595 x595mm,20 mm thick.	sqm	1040.00
8555	G.I main runner 15 x32 mm of 3000 mm length, 0.33 mm thick	each	185.00
8556	G.I cross-T 15 x32 mm of 1200 mm length, 0.33 mm thick	each	78.00
8557	G.I cross-T 15 x32 mm of 600 mm length, 0.33 mm thick	each	35.00
8558	G.I hanger rod 6mm dia fully threaded upto 1000 mm length	each	26.00
8559	Stainless steel U Channel of size (50x25x2mm)	metre	160.00
8560	Non staining water resistant clear silicon	metre	65.00
8561	Extruded polystyrene rigid insulation board 50 mm thick	sqm	525.00
8562	Expanded Polystyrene insulation board 120 mm thick confirming to IS 4671-1984, Fire retardant property self-extinguishing type as per EN 13501-1	sqm	800.00
8563	15 mm thick, light weight, integral densified micro look edged, false ceiling tiles of size 595x595 mm.	sqm	720.00
8564	15 mm thick, light weight,fully perforated square/butt edge integral densified, false ceiling tiles of size 595x595 mm.	sqm	900.00
8565	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	26.00
8566	Powder coated steel section main-T ceiling sections 15x42x0.40 mm (3000 mm long)	each	235.00

Code No.	Description	Unit	Rate ₹
8567	Galvanized mild steel perimeter wall angle 22x19x0.40 mm (3000 mm long)	each	115.00
8568	Powder coated Galvanised Iron intermediate cross-T section 15x42x0.40 mm (1200 mm long)	each	95.00
8569	Powder coated Galvanized Iron intermediate cross-T section 15x42x0.40mm (600 mm long)	each	47.00
8570	GI Main T ceiling section 30x25x0.3 mm (3 metre long)	each	187.00
8571	GI Perimeter wall angle 25x25x0.4 mm (3 metre long)	each	157.00
8572	GI Intermediate cross T section 25x25x0.3 mm (1.2 metre long)	each	72.00
8573	GI Intermediate cross T section 25x25x0.3 mm (0.6 metre long)	each	34.00
8576	Crates made of Mesh type 10x12 (D=100 mm) Zinc coated. (Mesh wire diameter 3.00 mm).	sqm	190.00
8577	Crates made of Mesh type 10x12 (D=100 mm) Zn+PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	220.00
8578	Crates made of Mesh type 10x12 (D=100 mm) Zn+10% Al alloy + PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	290.00
8579	Cold form light gauge Steel C-section of thickness 0.75mm i/c zink coating/slitting etc.	kg	130.00
8580	Wastage of cold form light gauge steel	kg	17.00
8581	12 mm thick micro tegular edged semi perforated GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm	sqm	510.00
8582	12 mm thick micro tegular edged fully perforated GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm	sqm	600.00
8583	10 mm thick square edge fully perforated GRG(Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm	sqm	750.00
8587	Galvanized iron intermediate cross-T section 15x32x0.33 mm (600 mm long)	each	35.00
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	26.00
8589	Calcium Silicate tegular edged ceiling tiles 595x595 mm and 15 mm thick on edges	sqm	685.00
8590	Galvanised Steel main Tee ceiling section Size 24x38x0.33 mm (3 metre long)	each	120.00
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00metre long)	each	65.00
8592	Galvanised Steel intermediate cross T section Size 24 x 25 x 0.33 mm (1.2 metre long)	each	40.00
8593	Galvanised Steel intermediate cross T section Size 24 x 25 x 0.33 mm (0.6 metre long)	each	20.00
8594	Galvanised Steel soffit cleat size 25x35x1.60 mm	each	4.00
8595	Wooden screws with plastic rawl plugs 35x8 mm	each	1.00
8596	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	32.00
8597	Gi Metal Tile Clip in Plain Beveled edge global white colour tiles ofsize 600x600 mm and 0.5 mm thick	sqm	677.00
8598	Gi Metal Tile Clip in Perforated Beveled edge global white colour tiles of size 600x600 mm and 0.5 mm thick	sqm	782.00
8599	Gi Metal Tile Lay-in Plain Tegular edge global white color tiles of Size 595x595 mm and 0.5 mm thick	sqm	612.00
8600	Gi Metal Tile Lay-in Perforated Tegular edge global white color tiles of Size 595x595 mm and 0.5 mm thick	sqm	715.00
8601	PVC Laminated Gypsum Tiles (Square edge) of Size 595x595 mm and 12.5 mm thick	sqm	880.00
8602	Gypsum Tiles Fully Perforated Square edge of Size 595x595 mm and 12.5 mm thick	sqm	375.00
8604	Spring T-section 24x34x0.45 mm (3.00 meter long)	metre	190.00
8605	C Wall angle section 20x30x20x0.50 mm (3.00 meter long)	metre	95.00
8606	Main C Carrier Size 10x38x10x0.70 mm (3.00 meter long)	metre	115.00
8607	Spring T-connector	each	5.00
8608	C Carrier Connector	each	11.00
8609	C Suspension Clip	each	8.00

Code No.	Description	Unit	Rate ₹
8610	Wire Coupling Clip	each	9.00
8611	Main T ceiling sections 24x38x0.3 mm (3 metre long)	each	115.00
8612	Perimeter wall angle 24 x 24 x 0.3 mm (3 metre long)	each	80.00
8613	Intermediate cross T-Section 24x25x0.3 mm (1.2 m long)	each	35.00
8614	Intermediate cross T-Section 24x25x0.3 mm (0.6 m long)	each	17.00
8615	Hanger rod 4 mm thick	each	8.00
8616	Adjustment clip 85x30x0.8 mm	each	5.00
8617	Soffit cleat (Size 27x37x25x1.60 mm)	each	4.00
8618	Dash fastener 6 mm dia 50 mm long	each	8.00
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	15.00
8620	Vitrified floor tile 50x50 cm conforming to IS 15622:2006 group (B1a)	sqm	490.00
8621	Vitrified floor tile 60x60 cm conforming to IS 15622:2006 group (B1a)	sqm	659.72
8622	Vitrified floor tile 80x80 cm conforming to IS 15622:2006 group (B1a)	sqm	850.00
8623	Vitrified floor tile 100x100 cm conforming to IS 15622:2006 group (B1a)	sqm	1390.00
8624	"Border tiles 200x75mm size	each	16.00
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	43.27
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	66.80
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	107.47
8629	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia	metre	161.07
8630	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia	metre	252.22
8631	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 63 mm Outer dia	metre	281.73
8632	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 75 mm Outer dia	metre	418.18
8633	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 90 mm Outer dia	metre	597.63
8634	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 110 mm Outer dia	metre	885.83
8635	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 160 mm Outer dia	metre	2557.30
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm outer dia	metre	48.55
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm outer dia	metre	77.80
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm outer dia	metre	113.60
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm outer dia	metre	163.65
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm outer dia	metre	228.70
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm outer dia	metre	375.25
8642	Chlorinated Polyvinyl - chloride (CPVC) pipe 62.5 mm inner dia	metre	793.30
8643	Chlorinated Polyvinyl - chloride (CPVC) pipe 75 mm inner dia	metre	1031.05
8644	Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm inner dia	metre	1466.75
8645	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm inner dia	metre	3145.15
8646	Silicon sealant	cartridge	100.00
8647	Stainless steel screws 30 mm x4 mm	100 Nos	32.00
8648	Hermetically sealed double glazed unit made with 6 mm thick clear float glass both side having 12 mm air gap	sqm	2150.00
8649	Stainless steel (SS 304 grade) adjustable friction window stay 205 x 19 mm	each	172.00
8650	Stainless steel (SS 304 grade) adjustable friction window stay 255 x 19 mm	each	222.00
8651	Stainless steel (SS 304 grade) adjustable friction window stay 355 x 19 mm	each	195.00

Code No.	Description	Unit	Rate ₹
8652	Stainless steel (SS 304 grade) adjustable friction window stay 510 x 19 mm	each	525.00
8653	Stainless steel (SS 304 grade) adjustable friction window stay 710 x 19 mm	each	900.00
8654	Masking tape	metre	1.95
8655	Autoclaved aerated cement (AAC) blocks	cum	2600.00
8656	Gypsum panel 666 X 500 X 100 mm size	sqm	480.00
8657	Bonding plaster for Gypsum panel	kg	25.00
8658	Precast C&D waste concrete block	1000 Nos	25150.00
8659	Water proof ply 12 mm thick	sqm	517.00
8660	Aluminium casement window fastener (Anodised AC 15)	each	44.00
8661	Aluminium casement window fastener (powder coated)	each	47.00
8662	Aluminium casement window fastener (polyester powder coated)	each	46.00
8663	Aluminium round shape handle (anodised AC 15) outer dia 100 mm	each	53.00
8664	Aluminium round shape handle (powder coated) outer dia 100 mm	each	56.00
8665	Aluminium round shape handle (polyester powder coated) outer dia 100 mm	each	60.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	38.00
8667	UV stabilised 2 mm thick plain FRP sheet	sqm	430.00
8668	UV stabilised 2 mm thick corrugated FRP sheet	sqm	485.00
8669	Mangalore ridge tiles 20 mm thick	each	8.00
8670	Mangalore tiles 20 mm thick	each	8.00
8671	Precoated galvanised iron profile sheet 0.50 mm TCT	sqm	350.00
8672	Precoated galvanised steel plain ridges 0.50 mm TCT and 500-600mm wide	metre	210.00
8673	Precoated galvanised steel flashings/aprons 0.50 mm TCT and upto 600mm wide	metre	210.00
8674	Precoated galvanised steel gutter 600mm overall girth	metre	420.00
8675	Precoated galvanised steel north light curves	metre	230.00
8676	Precoated galvanised steel barge board (upto 300mm)	metre	215.00
8677	Precoated galvanised steel crimp curve	sqm	230.00
8678	1 mm thick 35 mm wide bright finished stainless steel piano hinges	metre	42.00
8682	Epoxy Grout	kg	371.00
8683	Red sand stone gang saw cut 30 mm thick	sqm	425.00
8684	White sand stone gang saw cut 30 mm thick	sqm	560.00
8685	Delineator	each	300.00
8686	Precast C.C. Kerb stone M - 25	cum	5500.00
8687	Thermoplastic paint	kg	65.00
8688	Glass beads	kg	70.00
8689	Interlocking C.C. paver block (60 mm thick, M-30)	sqm	400.00
8690	High intensity retro - reflective sheet as per IRC 67-2001	sqm	1300.00
8691	Punched tape concertina coil 600 mm dia 10 m openable length (Total length 90 m)	bundle	600.00
8692	RBT reinforced barbed wire	metre	6.50
8693	Turn buckle and strengthening bolt	each set	40.00
8694	Precast pavement slab 450 x 450 x 50 mm (M - 30)	each	135.00
8695	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm	sqm	280.00
8696	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm, PVC coated to outer dia 5 mm	sqm	300.00
8697	Chain link fabric fencing mesh of size 25x25 mm made of G.I. wire of dia 3 mm	sqm	360.00
8698	Stainless steel cramps(weight 260 grams) with nuts, bolts and washer for dry stone cladding	each	100.00
8699	8 mm thick tapered edge calcium silicate board	sqm	265.00
8700	10 mm thick calcium silicate board	sqm	420.00

Code No.	Description	Unit	Rate ₹
8701	SS pipe 304 grades with press fit technology as per JIS 3448 standard 48.60 mm outer dia	metre	610.00
8702	Coupling/Socket fittings for 15.88 mm outer dia SS pipe	each	59.00
8703	Telescopic drawer channels 300 mm long	set	230.00
8704	Stainless steel roller for sliding arrangement in racks/ cupboards/ cabinets shutter	each	9.00
8705	50 mmX42 mmX2 mm thick Factory made door frame of PVC extruded sections in white, grey or wooden finish	metre	160.00
8706	25 mm thick factory made PVC flush door shutter i/c carriage	sqm	1700.00
8707	Factory made glass reinforced plastic door frame 90x45 mm i/c carriage	metre	467.00
8708	30 mm thick factory made glass fiber reinforced plastic panel doorshutter i/c carriage	sqm	2326.00
8709	30 mm thick factory made solid PVC profile panelled door single piece extruded profile decorative finish (wood grain printed on both side)	sqm	2100.00
8710	Factory made solid PVC door frame 60 x 30 mm i/c carriage	metre	315.00
8711	20 mm factory made solid PVC panel door shutter i/c carriage	sqm	2050.00
8712	30 mm thick factory made solid PVC profile panelled door single piece extruded profile non decorative finish	sqm	2000.00
8713	Fiber glass reinforced plastic chajja	sqm	3000.00
8714	Magnetic catcher triple strip vertical type	each	24.00
8715	Magnetic catcher double strip horizontal type	each	18.00
8716	100 mm mortice lock with 6 levers for aluminium door	each	375.00
8717	12.5 mm thick Glass fibre reinforced Gypsum board	sqm	195.00
8719	2nd class teak wood moulded beading or Taj beading/ornamental bleeding of size 18X5 mm	metre	28.00
8720	Ceiling sections 0.55 mm thick having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm	metre	35.00
8721	Perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm	metre	22.00
8722	Nylon sleeves & wooden screws (40 mm)	each	2.00
8723	Counter sunk ribbed head screw 25 mm	100 Nos	68.00
8724	12 mm thick marine plywood conforming to IS: 710	sqm	695.00
8725	12 mm thick fire retardant plywood conforming to IS: 5509	sqm	850.00
8726	1.5 mm thick decorative laminated sheet	sqm	365.00
8727	1.0 mm thick decorative laminated sheet	sqm	280.00
8730	30 mm thick factory made glass fiber reinforced plastic flush door shutter i/c carriage	sqm	2675.00
8731	High polymer modified quickset tile adhesive	kg	9.00
8732	Synthetic ployster triangular fibre of length 12 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40	kg	365.00
8733	Synthetic ployster triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40	kg	400.00
8734	P.V.C. Single piece extruded door frame of profile size 50 mm x 47 mm with wall thickness of 5 mm	metre	255.00
8735	35 mm thick factory made solid panel PVC door shutter of singlepiece extruded profile non decorative finished (Matt finished)	sqm	2150.00
8736	35 mm thick factory made solid panel PVC door shutter of single piece extruded profile decorative finished (wood grain finished)	sqm	2600.00
8737	Stainless steel wire guage (Grade-304) aperture 1.4 mm and 0.50 mm dia wire	sqm	400.00
8738	Factory made door frame fire rated (60 minutes) made with 16 SWG G.I. Sheet of section 143 mm x 57 mm duly filled with vermiculite based concrete mix	metre	1050.00

Code No.	Description	Unit	Rate ₹
8739	Fire rated door shutter made with 16 SWG G.I. sheet (60 minutes) without panel	sqm	4500.00
8740	Fire seal Putty	kg	295.00
8741	Clear fire resistant glass panes 6mm thick (60 minutes)	sqm	21500.00
8742	G.I. U beading of 16 SWG G.I. sheet (zinc coating >120gm/ m ²) with ceramic tape of suitable thickness and fire resistant primer coating	metre	295.00
8743	Matrix Mineral Board	metre	68.00
8744	Panic Bar / latch (Double point)	each	5200.00
8745	65 mm x 55 mm x 2 mm thick Factory made door frame of PVC extruded section in white, grey or wooden finish	metre	355.00
8746	37 mm thick Factory made shutter with style, rails and panels of PVC extruded section in white or grey finish i/c carriage	sqm	2400.00
8747	75 mm x 53 mm x 2.0 mm thick Factory made door frame of PVC extruded section in white, grey or wooden finish	metre	400.00
8748	37 mm thick Factory made fusion welded shutter with style, rails and panels of PVC extruded section in wooden finish	sqm	2600.00
8749	Zinc alloy (white powder coated) touch lock with hook for wire mesh shutter	sqm	120.00
8750	Zinc alloy (white powder coated) casement handle for uPVC window/door	each	130.00
8751	Zinc alloy (white powder coated) touch lock with hook for uPVC window/door	each	105.00
8752	Zinc alloy body with single nylon roller (weight bearing capacity to be 40 Kg) for uPVC sliding window	each	56.00
8753	Stainless Steel (SS - 304) with adjustable double nylon roller (weight bearing capacity to be 120 Kg) for uPVC sliding door/window	each	95.00
8754	Zinc alloy (white powder coated) crescent lock for uPVC sliding door/window	each	115.00
8755	Stainless steel friction hinge of size 200 mm x 19 x 1.9 mm for uPVC windows	each	205.00
8756	Stainless steel friction hinge of size 250 mm x 19 x 1.9 mm for uPVC windows	each	230.00
8757	Stainless steel friction hinges (SS-304 grade) size 300 x 19 x 1.9 mm for uPVC window	each	245.00
8758	Stainless steel friction hinges (SS-304 grade) size 350 x 19 x 1.9 mm for uPVC window	each	345.00
8759	Stainless steel friction hinges (SS-304 grade) size 400 x 19 x 1.9 mm for uPVC window	each	365.00
8760	Glass panes of required thickness having 60 minutes of fire resistance both integrity and radiation control (EW 60) and minimum 20 minutes of insulation (EI 20)	sqm	22500.00
8761	Scaffolding net made of high density polyethylene UV stabilized having density 100gm/ sqm.	sqm	21.50
8772	Aluminium Track on bottom rail for uPVC window	metre	30.00
8773	Wool pile/ weather pile strip for uPVC sliding window	metre	20.00
8774	Aluminium Grill as per IS 1868	kg	260.00
8775	Steel Galvanised tubular reinforcement for uPVC door/ window	metre	60.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	15.00
8777	GI Fastener 100x8 mm	each	15.00
8778	Toughened glass 12 mm thickness	sqm	1747.00
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	130.00
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	243.00
8781	SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	297.00
8782	SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	423.00

Code No.	Description	Unit	Rate ₹
8783	SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	441.00
8784	8 mm thick Calcium silicate perforated tiles of size 595 x595 mm	sqm	833.00
8785	Interlocking C.C. paver block (80 mm thick, M-30)	sqm	470.00
8786	Coupling/Socket fittings for 22.22 mm outer dia SS pipe	each	63.00
8787	Coupling/Socket fittings for 28.58 mm outer dia SS pipe	each	89.00
8788	Coupling/Socket fittings for 34.00 mm outer dia SS pipe	each	131.00
8789	Coupling/Socket fittings for 42.70 mm outer dia SS pipe	each	158.00
8790	Coupling/Socket fittings for 48.60 mm outer dia SS pipe	each	180.00
8791	Reducer for 22.22 mm X 15.88 mm outer Dia SS pipe	each	103.00
8792	Reducer for 28.58 mm X 15.88 mm outer Dia SS pipe	each	141.00
8793	Reducer for 28.58 mm X 22.22 mm outer Dia SS pipe	each	145.00
8794	Reducer for 34.00 mm X 15.88 mm outer Dia SS pipe	each	184.00
8795	Reducer for 34.00 mm X 22.22 mm outer Dia SS pipe	each	187.00
8796	Reducer for 34.00 mm X 28.58 mm outer Dia SS pipe	each	190.00
8797	Reducer for 42.70 mm X 15.88 mm outer Dia SS pipe	each	359.00
8798	Reducer for 42.70 mm X 22.22 mm outer Dia SS pipe	each	362.00
8799	Reducer for 42.70 mm X 28.58 mm outer Dia SS pipe	each	362.00
8800	Reducer for 42.70 mm X 34.00 mm outer Dia SS pipe	each	387.00
8801	Reducer for 48.60 mm X 15.88 mm outer Dia SS pipe	each	410.00
8802	Reducer for 48.60 mm X 22.22 mm outer Dia SS pipe	each	410.00
8803	Reducer for 48.60 mm X 28.58 mm outer Dia SS pipe	each	410.00
8804	Reducer for 48.60 mm X 34.00 mm outer Dia SS pipe	each	410.00
8805	Reducer for 48.60 mm X 42.70 mm outer Dia SS pipe	each	410.00
8806	Slip Coupling / Socket 15.88 mm outer dia SS pipe	each	47.00
8807	Slip Coupling / Socket 22.22 mm outer dia SS pipe	each	63.00
8808	Slip Coupling / Socket 28.58 mm outer dia SS pipe	each	89.00
8809	Slip Coupling / Socket 34.00 mm outer dia SS pipe	each	131.00
8810	Slip Coupling / Socket 42.70 mm outer dia SS pipe	each	158.00
8811	Slip Coupling / Socket 48.60 mm outer dia SS pipe	each	170.00
8812	Elbow 90° for 15.88 mm outer dia SS pipe	each	58.00
8813	Elbow 90° for 22.22 mm outer dia SS pipe	each	63.00
8814	Elbow 90° for 28.58 mm outer dia SS pipe	each	96.00
8815	Elbow 90° for 34.00 mm outer dia SS pipe	each	109.00
8816	Elbow 90° for 42.70 mm outer dia SS pipe	each	116.00
8817	Elbow 90° for 48.60 mm outer dia SS pipe	each	150.00
8818	Reducing Elbow 90° for 22.22 mm X 15.88 mm outer dia SS pipe	each	148.00
8819	Reducing Elbow 90° for 28.58 mm X 15.88 mm outer dia SS pipe	each	191.00
8820	Reducing Elbow 90° for 28.58 mm X 22.22 mm outer dia SS pipe	each	221.00
8821	Reducing Elbow 90° for 34.00 mm X 22.22 mm outer dia SS pipe	each	287.00
8822	Reducing Elbow 90° for 34.00 mm X 28.58 mm outer dia SS pipe	each	345.00
8823	Reducing Elbow 90° for 42.70 mm X 34.00 mm outer dia SS pipe	each	179.00
8824	Equal Tee for 15.88 mm outer dia SS pipe	each	159.00
8825	Equal Tee for 22.22 mm outer dia SS pipe	each	231.00
8826	Equal Tee for 28.58 mm outer dia SS pipe	each	273.00
8827	Equal Tee for 34.00 mm outer dia SS pipe	each	437.00
8828	Equal Tee for 42.70 mm outer dia SS pipe	each	683.00
8829	Equal Tee for 48.60 mm outer dia SS pipe	each	887.00
8830	Reducing Tee for 22.22 mm X 15.88 mm outer dia SS	each	179.00
8831	Reducing Tee for 28.58 mm X 15.88 mm outer dia SS pipe	each	273.00
8832	Reducing Tee for 28.58 mm X 22.22 mm outer dia SS pipe	each	273.00
8833	Reducing Tee for 34.00 mm X 15.88 mm outer dia SS pipe	each	437.00
8834	Reducing Tee for 34.00 mm X 22.22 mm outer dia SS pipe	each	437.00
8835	Reducing Tee for 34.00 mm X 28.58 mm outer dia SS pipe	each	437.00

Code No.	Description	Unit	Rate ₹
8836	Reducing Tee for 42.70 mm X 15.88 mm outer dia SS pipe	each	683.00
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	683.00
8838	Reducing Tee for 42.70 mm X 28.58 mm outer dia SS pipe	each	683.00
8839	Reducing Tee for 42.70 mm X 34.00 mm outer dia SS pipe	each	683.00
8840	Reducing Tee for 48.60 mm X 15.88 mm outer dia SS pipe	each	887.00
8841	Reducing Tee for 48.60 mm X 22.22 mm outer dia SS pipe	each	887.00
8842	Reducing Tee for 48.60 mm X 28.58 mm outer dia SS pipe	each	887.00
8843	Reducing Tee for 48.60mm X 34.00 mm outer dia SS pipe	each	887.00
8844	Reducing Tee for 48.60mm X 42.70mm outer dia SS pipe	each	887.00
8845	Stainless steel Male thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	179.00
8846	Stainless steel Male thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	200.00
8847	Stainless steel Male thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	205.00
8848	Stainless steel Male thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	273.00
8849	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	273.00
8850	Stainless steel Male thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	273.00
8851	Stainless steel Male thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	437.00
8852	Stainless steel Male thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	437.00
8853	Stainless steel Male thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	437.00
8854	Stainless steel Male thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	437.00
8855	Stainless steel Male thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	683.00
8856	Stainless steel Male thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	683.00
8857	Stainless steel Male thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	683.00
8858	Stainless steel Male thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	683.00
8859	Stainless steel Male thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	683.00
8860	Stainless steel Male thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	887.00
8861	Stainless steel Male thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	887.00
8862	Stainless steel Male thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	887.00
8863	Stainless steel Male thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	887.00
8864	Stainless steel Male thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	887.00
8865	Stainless steel Male thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	887.00
8866	Stainless steel Female thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	179.00
8867	Stainless steel Female thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	200.00
8868	Stainless steel Female thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	200.00
8869	Stainless steel Female thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	273.00
8870	Stainless steel Female thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	273.00

Code No.	Description	Unit	Rate ₹
8871	Stainless steel Female thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	273.00
8872	Stainless steel Female thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	437.00
8873	Stainless steel Female thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	437.00
8874	Stainless steel Female thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	437.00
8875	Stainless steel Female thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	437.00
8876	Stainless steel Female thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	683.00
8877	Stainless steel Female thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	683.00
8878	Stainless steel Female thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	683.00
8879	Stainless steel Female thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	683.00
8880	Stainless steel Female thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	683.00
8881	Stainless steel Female thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	887.00
8882	Stainless steel Female thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	887.00
8883	Stainless steel Female thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	887.00
8884	Stainless steel Female thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	887.00
8885	Stainless steel Female thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	887.00
8886	Stainless steel Female thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	887.00
8887	Stainless steel Female threaded Connector/Adapter for 15.88 mm outer dia X 15 mm nominal threaded	each	190.00
8888	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal threaded	each	230.00
8889	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 20 mm nominal threaded	each	237.00
8890	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 15 mm nominal threaded	each	277.00
8891	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal threaded	each	286.00
8892	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal threaded	each	337.00
8893	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal threaded	each	409.00
8894	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal threaded	each	538.00
8895	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal threaded	each	576.00
8896	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal threaded	each	681.00
8897	Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal threaded	each	838.00
8898	Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 50 mm nominal threaded	each	965.00
8899	Stainless steel Male threaded Connector/Adapter for 15.88 mm outer dia X 15 mm nominal threaded	each	193.00
8900	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal threaded	each	227.00
8901	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 20 mm nominal threaded	each	248.00

Code No.	Description	Unit	Rate ₹
8902	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal threaded	each	313.00
8903	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal threaded	each	320.00
8904	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal threaded	each	461.00
8905	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal threaded	each	565.00
8906	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal threaded	each	649.00
8907	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal threaded	each	726.00
8908	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal threaded	each	840.00
8909	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 50 mm nominal threaded	each	1138.00
8910	Stainless steel Valve Connector for 15.88 mm outer dia X 15 mm nominal dia threaded	each	234.00
8911	Stainless steel Valve Connector for 22.22 mm outer dia X 15 mm nominal dia threaded	each	276.00
8912	Stainless steel Valve Connector for 22.22 mm outer dia X 20 mm nominal dia threaded	each	295.00
8913	Stainless steel Valve Connector for 28.58 mm outer dia X 25 mm nominal dia threaded	each	424.00
8914	Stainless steel Valve Connector for 34.00 mm outer dia X 32 mm nominal dia threaded	each	629.00
8915	Stainless steel Valve Connector for 42.70 mm outer dia X 40 mm nominal dia threaded	each	875.00
8916	Stainless steel Valve Connector for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1176.00
8917	SS Female Threaded Elbow 90o for 15.88 mm outer dia X 15 mm nominal dia threaded	each	150.00
8918	Stainless steel Female Threaded Elbow 90o for 22.22 mm outer dia X 15 mm nominal dia threaded	each	191.00
8919	Stainless steel Female Threaded Elbow 90o for 22.22 mm outer dia X 20 mm nominal dia threaded	each	191.00
8920	Stainless steel Female Threaded Elbow 90o for 28.58 mm outer dia X 25 mm nominal dia threaded	each	205.00
8921	Stainless steel Female Threaded Elbow 90o for 34.00 mm outer dia X 32 mm nominal dia threaded	each	287.00
8922	Stainless steel Female Threaded Elbow 90o for 42.70 mm outer dia X 32 mm nominal dia threaded	each	478.00
8923	Stainless steel Female Threaded Elbow 90o for 42.70 mm outer dia X 40 mm nominal dia threaded	each	478.00
8924	Stainless steel Female Threaded Elbow 90o for 48.60 mm outer dia X 40 mm nominal dia threaded	each	683.00
8925	Stainless steel Female Threaded Elbow 90o for 48.60 mm outer dia X 50 mm nominal dia threaded	each	683.00
8926	Stainless steel Male Threaded Elbow 90o for 15.88 mm outer dia X 15 mm nominal dia threaded	each	191.00
8927	Stainless steel Male Threaded Elbow 90o for 22.22 mm outer dia X 15 mm nominal dia threaded	each	205.00
8928	Stainless steel Male Threaded Elbow 90o for 22.22 mm outer dia X 20 mm nominal dia threaded	each	205.00
8929	Stainless steel Male Threaded Elbow 90o for 28.58 mm outer dia X 25 mm nominal dia threaded	each	205.00
8930	Stainless steel Male Threaded Elbow 90o for 34.00 mm outer dia X 25 mm nominal dia threaded	each	287.00
8931	Stainless steel Male Threaded Elbow 90o for 34.00 mm outer dia X 32 mm nominal dia threaded	each	287.00
8932	Stainless steel Male Threaded Elbow 90o for 42.70 mm outer dia X 32 mm nominal dia threaded	each	478.00

Code No.	Description	Unit	Rate ₹
8933	Stainless steel Male Threaded Elbow 900 for 42.70 mm outer dia X 40 mm nominal dia threaded	each	478.00
8934	Stainless steel Male Threaded Elbow 900 for 48.60 mm outer dia X 40 mm nominal dia threaded	each	683.00
8935	Stainless steel Male Threaded Elbow 900 for 48.60 mm outer dia X 50 mm nominal dia threaded	each	683.00
8936	Stainless steel Cap for 15.88 mm outer dia pipe	each	45.00
8937	Stainless steel Cap for 22.22 mm outer dia pipe	each	64.00
8938	Stainless steel Cap for 28.58 mm outer dia pipe	each	84.00
8939	Stainless steel Cap for 34.00 mm outer dia pipe	each	163.00
8940	Stainless steel Cap for 42.70 mm outer dia pipe	each	236.00
8941	Stainless steel Cap for 48.60 mm outer dia pipe	each	299.00
8942	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	214.00
8943	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	271.00
8944	Stainless steel Pipe Bridge for 28.58 mm outer dia pipe	each	407.00
8945	4 Point facade glass bracket without flat head bolts	Nos	3318.00
8946	2 Point facade glass bracket (wall mounted with out flat head bolt)	Nos	1659.00
8947	1 Point facade glass bracket (wall mounted with out flat head bolt)	Nos	1300.00
8948	Flate head bolt for brackets of spider glazing	Nos	651.00
8949	400 mm long fin plate without fastners	pair	5931.00
8953	Micro Silica	kg	32.00
8954	Stop end tubes for diaphragmwall 600 mm dia.	sqm	4.50
8955	Driving end tubes for diaphragm wall 600 mm dia.	sqm	72.00
8956	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 15 kN/m in the longitudinal and transverse direction	sqm	100.00
8957	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 20kN/m in the longitudinal and transverse direction	sqm	115.00
8958	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 30kN/m in the longitudinal and transverse direction	sqm	185.00
8959	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 40kN/m in the longitudinal and transverse direction	sqm	275.00
8960	Geosynthetic Drainage with two filtering nonwoven geotextiles having a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm having pores of 150 micron and tensile strength of 8.0 kN/m and having plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure,tensile strength of 18 kN/m , with mass per unit area of 740 gsm.	sqm	530.00
8961	Geosynthetic Drainage Composite having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlayed ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 g/m ² and tensile strength of 8.0 kN/m having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/m , with mass per unit area of 830 gsm,	sqm	630.00
8962	Synthetic Geogrid having Ultimate tensile strength- 100 kN/m	sqm	220.00
8963	Synthetic Geogrid Ultimate tensile strength- 150 kN/m	sqm	230.00
8964	Synthetic Geogrid Ultimate tensile strength- 200 kN/m	sqm	320.00
8965	Synthetic Geogrid Ultimate tensile strength- 250 kN/m	sqm	355.00
8966	Synthetic Geogrid Ultimate tensile strength- 300kN/m	sqm	365.00
8967	Synthetic Geogrid Ultimate tensile strength- 350kN/m	sqm	370.00
8968	Synthetic Geogrid Ultimate tensile strength- 400kN/m	sqm	475.00
8969	Synthetic Geogrid Ultimate tensile strength- 500kN/m	sqm	535.00
8970	Synthetic Geogrid Ultimate tensile strength- 600kN/m	sqm	550.00
8971	Synthetic Geogrid Ultimate tensile strength- 700kN/m	sqm	685.00

Code No.	Description	Unit	Rate ₹
8972	Synthetic Geogrid Ultimate tensile strength- 800kN/m	sqm	750.00
8973	Synthetic Geogrid Ultimate tensile strength- 900kN/m	sqm	900.00
8974	Synthetic Geogrid Ultimate tensile strength- 1000kN/m	sqm	1025.00
8975	Synthetic Geogrid Ultimate tensile strength- 1100kN/m	sqm	1000.00
8976	Synthetic Geogrid Ultimate tensile strength- 1200kN/m	sqm	1088.00
8977	Aluminium profile industrial troughed sheet of Alloy 31500/31000/40800, conforming to IS 1254, IS 737, IS 2676, 0.71 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.	sqm	600.00
8978	Aluminium profile industrial troughed sheet of Alloy 31500/31000/40800, conforming to IS 1254, IS 737, IS 2676, 0.91 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.	sqm	785.00
9001	C.P. Brass Centre Hole Basin Mixer With Cast Spout	each	1600.00
9977	Carriage	L.S.	2.00
9988	Carriage and sundries	L.S.	2.00
9999	Sundries	L.S.	2.00

BASIC RATES 0.4 CARRIAGE CODES

(Carriage for 5.0 km lead by Mechanical Transport including loading, Unloading and stacking).

Code No.	Description	Unit	Rate ₹
2200	Carriage of Steam coal	tonne	121.29
2201	Carriage of Bricks	1000 Nos	283.01
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	106.13
2203	Carriage of Coarse sand	cum	106.13
2204	Carriage of Timber	cum	121.29
2205	Carriage of Steel	tonne	94.34
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	115.36
2207	Carriage of Brick tiles	1000 Nos	169.81
2208	Carriage of Lime	cum	106.13
2209	Carriage of Cement	tonne	94.34
2211	Carriage of Tar / Bitumen	tonne	106.13
2215	Carriage of Soling stone & masonry stone	cum	124.86
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	94.34
2224	Carriage of S.W. pipes 100 mm dia	100 metre	141.51
2225	Carriage of S.W. pipes 150 mm dia	100 metre	283.01
2226	Carriage of S.W. pipes 200 mm dia	100 metre	471.69
2228	Carriage of S.W. pipes 250 mm dia	100 metre	808.61
2229	Carriage of S.W. pipes 300 mm dia	100 metre	1010.76
2241	Carriage of Good earth	cum	132.66
2242	Carriage of Dump manure by mechanical transport upto 5 km lead	cum	115.36
2260	Carriage of Brick aggregate	cum	115.36
2261	Carriage of Fine sand	cum	106.13
2262	Carriage of Flyash	cum	106.13
2264	Carriage of Rubbish	cum	106.13
2265	Carriage of Moorum	cum	106.13
2266	Carriage of Surkhi	cum	106.13
2267	Carriage of Stone dust	cum	106.13
2268	Carriage of Marble dust and/or marble chips	cum	106.13
2271	Carriage of G.I. pipes below 100 mm dia	tonne	94.34
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	94.34
2273	Carriage of A.C.sheet and accessories	tonne	94.34
2275	Carriage of R.C.C. pipes 100 mm dia	100 metre	231.98
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	386.63
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	893.73
2290	Carriage of R.C.C. pipes 300 mm dia	100 metre	1104.66
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	2577.54
2302	Carriage of G.I. sheet and accessories	tonne	94.34
2303	Carriage of R.C.C. pipes 600,700,750 & 800 mm dia	100 metre	3866.30
2308	Carriage of Plaster of paris	tonne	94.34
2309	Carriage of Cast Iron fittings	tonne	94.34
2311	Carriage of bajri	cum	106.13

Code No.	Description	Unit	Rate ₹
2314	Carriage of Barbed wire	tonne	94.34
2317	Carriage of Sludge	cum	115.36
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	231.98
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	309.87
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	386.63
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	628.92
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	893.73
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	1104.66
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	1546.52
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	2108.89
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	2577.54
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	2577.54
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	3866.30
2330	Carriage of C.I. pipes 500 mm dia	100 metre	2577.54
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	5799.46
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	7732.61
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	7732.61
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	7732.61
2335	Carriage of sand	cum	106.13
2336	Carriage of R.C.C. pipe above 1200 mm dia and upto 1800 mm dia	100 metre	7732.61
2341	Carriage of Pig lead	tonne	94.34
2342	Carriage of Solvent / Diesel.	quintal	10.61
2343	Carriage of Ductile Iron pipes (k7) 100 mm dia	100 metre	231.98
2344	Carriage of Cast iron pipes 150 mm dia	100 metre	386.63
2345	Carriage of Cast iron pipes 200 mm dia	100 metre	628.92
2346	Carriage of Cast iron pipes 250 mm dia	100 metre	893.73
2347	Carriage of Cast iron pipes 300 mm dia	100 metre	1104.66
2348	Carriage of Cast iron pipes 350 mm dia	100 metre	1546.52
2349	Carriage of Cast iron pipes 400 mm dia	100 metre	2108.89
2350	Carriage of Cast iron pipes 450 mm dia	100 metre	2577.54
2351	Carriage of Cast iron pipes 500 mm dia	100 metre	2577.54
2352	Carriage of Cast iron pipes 600 mm dia	100 metre	3866.30
2353	Carriage of Cast iron pipes 700 mm dia	100 metre	3866.30
2355	Carriage of Cast iron pipes 800 mm dia	100 metre	3866.30
2356	Carriage of Cast iron pipes 900 mm dia	100 metre	5799.46
2357	Carriage of Cast iron pipes 1000 mm dia	100 metre	7732.61

1.0 CARRIAGE OF MATERIAL BY MECHANICAL TRANSPORT

Note:- These rates are inclusive of Contractor's profit and over heads but exclusive of GST

1.1 By Mechanical Transport including loading, unloading and stacking.

Rate including 15% C.P. & O.H. charges.

S.No.	Material.	Unit	1 km,	2 Km.	3 km.	4 Km.	5Km.	Beyond 5 km upto 10 km per Km.	Beyond 10 km upto 20 km per km	Beyond 20 km per additional 1 km.	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
1.1.1	Lime,Moorum, Building rubbish.	1 Cum	76.17	87.97	99.67	110.99	122.05	10.07	8.60	7.35	The rates will be applicable to net quantities after deduction of prescribed percentage for voids mentioned in the specification under sub-head "Carriage of Materials"
1.1.2	Earth work	1 Cum	95.21	109.97	124.59	138.74	152.56	12.58	10.75	9.19	
1.1.3	Manure or sludge.	1 Cum	82.79	95.62	108.34	120.64	132.66	10.94	9.35	7.99	
1.1.4	Excavated Rocks.	1 Cum	152.33	175.95	199.35	221.98	244.10	20.13	17.20	14.71	
1.1.5	Sand, stone aggregate below 40 mm	1 Cum	76.17	87.97	99.67	110.99	122.05	10.07	8.60	7.35	
1.1.6	Stone aggregate 40 mm and above.	1 Cum	82.79	95.62	108.34	120.64	132.66	10.94	9.35	7.99	
1.1.7	Soling /Building stones.	1 Cum	89.61	103.50	117.26	130.58	143.59	11.84	10.11	8.65	
1.1.8	Bricks.	1000 Nos.	203.11	234.60	265.80	295.97	325.47	26.85	22.93	19.61	
1.1.9	Bricks tiles.	1000 Nos.	121.87	140.76	159.48	177.58	195.28	16.11	13.76	11.77	
1.1.10	Cement,G.I.,C.I.,A.C.,C.C. pipe and other heavy material.	1 Tonne.	67.70	78.20	88.60	98.66	108.49	8.95	7.64	6.54	
1.1.11	Steel,C.G.I.& Asbestos sheets.	1 Tonne.	67.70	78.20	88.60	98.66	108.49	8.95	7.64	6.54	
1.1.12	Timber	1 Cum	87.05	100.54	113.91	126.85	139.49	11.51	9.83	8.40	
1.1.13	Tar Bitumen.	1 Cum	76.17	87.97	99.67	110.99	122.05	10.07	8.60	7.35	
1.1.14	Solvent Diesel	1 Qtl.	7.62	8.80	9.97	11.10	12.20	1.01	0.86	0.74	
1.1.15	Steam Coal.	1 Cum	87.05	100.54	113.91	126.85	139.49	11.51	9.83	8.40	
1.1.16	S.W.pipes.										

S.No.	Material.	Unit	1 km,	2 Km.	3 km.	4 Km.	5Km.	Beyong 5 km upto 10 km per Km.	Beyond 10 km upto 20 km per km	Beyond 20 km per additional 1 km.	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
1.1.16.1	S.W.pipes 100 mm dia.	100 Mtrs.	101.56	117.30	132.90	147.99	162.73	13.42	11.46	9.80	
1.1.16.2	S.W.pipes 150 mm dia.	100 Mtrs.	203.11	234.60	265.80	295.97	325.47	26.85	22.93	19.61	
1.1.16.3	S.W.pipes 200 mm dia.	100 Mtrs.	338.52	391.00	443.00	493.29	542.44	44.74	38.21	32.68	
1.1.16.5	S.W.pipes 250 mm dia.	100 Mtrs.	580.32	670.28	759.42	845.64	929.90	76.70	65.51	56.03	
1.1.16.6	S.W.pipes 300 mm dia.	100 Mtrs.	725.40	837.85	949.28	1057.05	1162.38	95.88	81.88	70.03	
1.1.16.7	S.W.pipes 350 mm dia.	100 Mtrs.	1015.56	1172.99	1328.99	1479.87	1627.33	134.23	114.63	98.05	
1.1.16.8	S.W.pipes 400 mm dia.	100 Mtrs.	1450.80	1675.70	1898.55	2114.11	2324.75	191.75	163.76	140.07	
1.1.16.9	S.W.pipes 450 mm dia.	100 Mtrs.	1846.47	2132.71	2416.34	2690.68	2958.78	244.05	208.43	178.27	
1.1.16.10	S.W.pipes 500 mm dia.	100 Mtrs.	2031.12	2345.98	2657.98	2959.75	3254.66	268.46	229.27	196.09	
1.1.16.11	S.W.pipes 600 mm dia.	100 Mtrs.	2538.90	2932.48	3322.47	3699.69	4068.32	335.57	286.59	245.12	
1.1.17	R.C.C.,A.C. pipes, steel cylinder, R.C. pipes, C.I. pipes & unreinforced cement pipes.										
1.1.17.1	100 mm dia.	100 Mtrs.	166.48	192.29	217.87	242.60	266.78	22.00	18.79	16.07	
1.1.17.2	125 mm dia	100 Mtrs.	222.39	256.86	291.02	324.06	356.35	29.39	25.10	21.47	
1.1.17.3	150 mm dia	100 Mtrs.	277.47	320.49	363.11	404.34	444.63	36.67	31.32	26.79	
1.1.17.4	200 mm dia	100 Mtrs.	451.36	521.33	590.66	657.72	723.26	59.66	50.95	43.58	
1.1.17.5	250 mm dia	100 Mtrs.	641.41	740.84	839.36	934.66	1027.79	84.78	72.40	61.92	
1.1.17.6	300 mm dia	100 Mtrs.	792.79	915.68	1037.46	1155.25	1270.36	104.78	89.49	76.54	
1.1.17.7	350 mm dia	100 Mtrs.	1109.90	1281.96	1452.45	1617.35	1778.50	146.70	125.28	107.15	
1.1.17.8	400 mm dia	100 Mtrs.	1513.50	1748.12	1980.61	2205.48	2425.23	200.04	170.84	146.12	
1.1.17.9	450 mm & 500 mm dia	100 Mtrs.	1849.83	2136.60	2420.74	2695.58	2964.17	244.50	208.81	178.59	

S.No.	Material.	Unit	1 km,	2 Km.	3 km.	4 Km.	5Km.	Beyong 5 km upto 10 km per Km.	Beyond 10 km upto 20 km per km	Beyond 20 km per additional 1 km.	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
1.1.17.10	600, 700, 750 & 800 mm dia.	100 Mtrs.	2774.75	3204.89	3631.11	4043.37	4446.25	366.74	313.21	267.89	
1.1.17.11	900 mm dia.	100 Mtrs.	4162.12	4807.34	5446.67	6065.06	6669.38	550.11	469.82	401.83	
1.1.17.12	1000, 1100 & 1200 mm dia.	100 Mtrs.	5549.50	6409.79	7262.23	8086.74	8892.50	733.49	626.42	535.77	
		Description									Unit
1.1.18	Disposal of moorum/building rubbish/ malba/ similar unserviceable, dismantled or waste material by mechanical transport including loading, transporting, unloading to approved municipal dumping ground for lead upto 10 km for all lifts, complete as per directions of Engineer-in-charge. Note - item to be applicable in urban areas having directions for restricted hours for movement/ plying of load carrying motor vehicle of 3.5 cum or more.										Cum 216.40

1.0 CARRIAGE OF MATERIALS

Note:- These rates are inclusive of Contractor's profit and over heads but exclusive of GST

1.2 By Manual Labour including loading, unloading and stacking for lead less than 0.50 KM

Code No.	Material	Unit	Cost of carriage including loading, unloading & stacking for first 50 metres	Every additional lead of 50 metre or part thereof beyond 1st 50 metre upto 9 such additional lead	Remarks
1	2	3	4	5	6
1.2.1	Lime, moorum, building rubbish	cum	80.85	17.60	The rates will be applicable to net quantities after deduction of prescribed percentage for voids mentioned in the specification under sub-head "Carriage of Materials"
1.2.2	Earth	cum	101.07	22.01	
1.2.3	Manure or sludge	cum	87.88	19.14	
1.2.4	Excavated rock	cum	161.71	35.21	
1.2.5	Sand, stone aggregate below 40 mm nominal size	cum	101.07	22.01	
1.2.6	Stone aggregate 40 mm nominal size and above	cum	109.26	23.79	
1.2.7	Soling stone	cum	118.90	25.89	
1.2.8	Bricks	1000 Nos	188.66	41.08	
1.2.9	Brick Tiles	1000 Nos	117.91	25.67	
1.2.10	Steam Coal	tonne	94.33	20.54	
1.2.11	Stone blocks, G.I., C.I. Stainless Steel pipes below 100 mm dia and other heavy material	tonne	73.79	10.83	
1.2.12	Cement	tonne	58.53	8.59	
1.2.13	Steel	tonne	125.72	18.45	
1.2.14	Timber	cum	80.82	11.86	
1.2.15	Tar, bitumen etc.	tonne	73.79	10.83	
1.2.16	S.W. pipe				The length of S.W. pipes will be

Code No.	Material	Unit	Cost of carriage including loading, unloading & stacking for first 50 metres	Every additional lead of 50 metre or part thereof beyond 1st 50 metre upto 9 such additional lead	Remarks
1	2	3	4	5	6
1.2.16.1	100 mm dia	100 m	147.71	21.67	measured exclusive of the internal depth of sockets.
1.2.16.2	150 mm dia	100 m	242.80	35.63	
1.2.16.3	200 mm dia	100 m	339.78	49.86	
1.2.16.5	250 mm dia	100 m	565.73	83.01	
1.2.16.6	300 mm dia	100 m	808.19	118.59	
1.2.16.7	350 mm dia	100 m	1131.46	166.03	
1.2.16.8	400 mm dia	100 m	1414.33	207.54	
1.2.16.9	450 mm dia	100 m	1714.33	251.56	
1.2.16.10	500 mm dia	100 m	2095.30	307.46	
1.2.16.11	600 mm dia	100 m	2571.50	377.34	
1.2.17	R.C.C. pipes, Steel cylinder, R.C. pipes, C.I. pipes, and unreinforced cement pipes				
1.2.17.1	100 mm dia	100 m	199.43	29.26	The length of the flanged or plain ended concrete, R.C.C. pipes, Steel cylinders, R.C. pipes and C.I. pipes shall be measured overall. The length of socketed pipes shall be measured exclusive of internal depth of sockets.
1.2.17.2	125 mm dia	100 m	244.02	35.81	
1.2.17.3	150 mm dia	100 m	280.99	41.23	
1.2.17.4	200 mm dia	100 m	421.66	61.87	
1.2.17.5	250 mm dia	100 m	741.13	108.75	
1.2.17.6	300 mm dia	100 m	927.43	136.09	
1.2.17.7	350 mm dia	100 m	1325.93	194.57	
1.2.17.8	400 mm dia	100 m	1542.90	226.40	
1.2.17.9	450 mm & 500 mm dia	100 m	2057.20	301.87	
1.2.17.10	600, 700, 750 & 800 mm dia	100 m	2262.92	332.06	

Code No.	Description	Unit	Rate	Remarks
1	2	3	4	5
1.3	Loading in or unloading cement from the railway wagons at siding and carrying the same from or into godowns adjacent to the siding, including stacking the same properly in rows upto any height as per direction of Engineer-in-charge, sweeping the wagons and screening the swept cement and filling in bags complete.	tonne	60.40	
1.4	Loading in or unloading from the railway wagons as per direction of Engineer-in-charge :			
1.4.1	Steel	tonne	52.70	The rates will be applicable to net quantities after deduction of prescribed percentage for voids mentioned in the specification under sub-head "Carriage of Materials"
1.4.2	G.I., C.I., R.C.C. or C.C. pipes upto 500 mm dia and similar heavy materials	tonne	53.20	
1.4.3	Heavy materials where each piece or bundle, crate or case weighs more than one tonne and R.C.C., C.I. concrete pipes above 500 mm dia.	tonne	101.84	No deduction shall be from carriage rates for direct unloading and or loading

SUB HEAD : 2.0

EARTH WORK

Code No.	Description	Unit	Rate
2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in- Charge: 2.1.1 All kinds of soil	sqm	53.25
2.2	Earth work in rough excavation, banking excavated earth in layers not exceeding 20cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead upto 50 m and lift upto 1.5 mtr :		
2.2.1	All kinds of soil	cum	429.25
2.3	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 50 m and lift upto 1.5 mtr.		
2.3.1	All kinds of soil	cum	270.40
2.4	Deduct for not rolling with power roller of minimum 8 tonnes for banking excavated earth in layers not exceeding 20 cm in depth.	cum	4.05
2.5	Deduct for not watering the excavated earth for banking	cum	17.15
2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. 2.6.1 All kinds of soil	cum	131.05

Code No.	Description	Unit	Rate
2.7	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge.		
2.7.1	Ordinary rock	cum	235.05
2.7.2	Hard rock (requiring blasting)	cum	426.55
2.7.3	Hard rock (blasting prohibited)	cum	652.85
2.8	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 sqm 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, within a lead of 50 m.		
2.8.1	All kinds of soil.	cum	171.40
2.9	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm 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 soils as directed, within a lead of 50 m.		
2.9.1	Ordinary rock	cum	290.15
2.9.2	Hard rock (requiring blasting)	cum	503.70
2.9.3	Hard rock (blasting prohibited)	cum	690.05
2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :		
2.10.1	All kinds of soil		
2.10.1.1	Pipes, cables etc, not exceeding 80 mm dia.	metre	139.80
2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	228.35
2.10.1.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm	metre	356.50

Code No.	Description	Unit	Rate
2.11	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre).	metre	126.80 %.
2.12	Extra for excavating trenches for pipes, cables, etc, in all kinds of soil for depth exceeding 3 m in depth, but not exceeding 4.5 m. (Rate is over corresponding basic item for depth upto 1.5 metre.)	metre	315.50 %.
2.13	Excavating trenches of required width for pipes, cables, etc, including excavation for sockets, depth upto 1.5 m, including getting out the excavated materials, returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed, within a lead of 50 m :		
2.13.1	Ordinary rock		
2.13.1.1	Pipes, cables etc. not exceeding 80 mm dia	metre	200.70
2.13.1.2	Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia	metre	496.95
2.13.1.3	Pipes, cables exceeding 300 mm dia but not exceeding 600 mm dia	metre	571.85
2.13.2	Hard rock (requiring blasting)		
2.13.2.1	Pipes, cables etc. not exceeding 80 mm dia	metre	302.80
2.13.2.2	Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia	metre	749.75
2.13.2.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm dia	metre	862.70
2.13.3	Hard rock (blasting prohibited)		
2.13.3.1	Pipes, cables etc. not exceeding 80 mm dia	metre	390.85
2.13.3.2	Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia	metre	967.80
2.13.3.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm dia	metre	1113.65
2.14	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)	metre	102.55 %.
2.15	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)	metre	252.90%.

Code No.	Description	Unit	Rate
2.16	Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered).		
2.16.1	Depth not exceeding 1.5 m	sqm	124.20
2.16.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	130.80
2.16.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	145.70
2.17	Close timbering in case of shafts, wells, cesspits, manholes and the like including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered).		
2.17.1	Depth not exceeding 1.5 m	sqm	129.05
2.17.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	143.15
2.17.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	158.00
2.18	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered):		
2.18.1	Depth not exceeding 1.5 m	sqm	110.50
2.18.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	118.25
2.18.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	126.60
2.19	Extra for planking, strutting and packing materials for cavities (in close timbering) if required to be left permanently in position. (Face area of timber permanently left to be measured).	sqm	1593.85
2.20	Open timbering in trenches including strutting and shoring complete (measurements to be taken of the face area timbered):		
2.20.1	Depth not exceeding 1.5 m	sqm	64.10
2.20.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	68.30
2.20.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	75.05
2.21	Open timbering in case of shafts, wells, cesspits, manholes and the like including strutting and shoring complete (Measurements to be taken of the face area timbered):		
2.21.1	Depth not exceeding 1.5 m	sqm	55.60
2.21.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	62.15

Code No.	Description	Unit	Rate
2.21.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	70.75
2.22	Open timbering over areas including strutting, shoring etc. complete. (Measurements to be taken of the face area timbered):		
2.22.1	Depth not exceeding 1.5 m	sqm	38.10
2.22.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	42.70
2.22.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	49.95
2.23	Extra for planking and strutting in open timbering if required to be left permanently in position. (Face area of the timber permanently left to be measured).	sqm	820.60
2.24	Extra rates for quantities of works, executed:		
2.24.1	In or under water and/or liquid mud, including pumping out water as required.	metre depth	20.00%
2.24.2	In or under foul position, including pumping out water as required.	metre depth	25.00 %
	Note for item no. 2.24:- 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 conditions. The depth shall be reckoned correct to 0.10 m, 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.		
2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	124.50
2.25 (a)	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete.	cum	270.40
2.26	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.		
2.26.1	All kinds of soil	cum	51.50
2.26.2	Ordinary or hard rock	cum	92.30
2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	cum	1880.15

Code No.	Description	Unit	Rate
2.28	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.		
2.28.1	All kinds of soil	sqm	14.00
2.29	Ploughing the existing ground to a depth of 15 cm to 25 cm and watering the same.		
2.29.1	All kinds of soil	sqm	13.95
2.30	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.		
2.30.1	All kinds of soil	each	55.85
2.30.2	Ordinary rock	each	90.65
2.30.3	Hard rock (requiring blasting)	each	154.75
2.30.4	Hard rock (blasting prohibited)	each	210.65
2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	7.20
2.32	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	3.70
2.33	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.		
2.33.1	Beyond 30 cm girth upto and including 60 cm girth	each	221.95
2.33.2	Beyond 60 cm girth upto and including 120 cm girth	each	980.40
2.33.3	Beyond 120 cm girth upto and including 240 cm girth	each	4528.70
2.33.4	Above 240 cm girth	each	9086.25
2.34	Supplying chemical emulsion in sealed containers including delivery as specified.		
2.34.1	Chlorpyrifos/ Lindane emulsifiable concentrate of 20%	litre	200.85

Code No.	Description	Unit	Rate
2.35	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :		
2.35.1	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:		
2.35.1.1	With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	metre	17.80
2.35.2	Along the external wall below concrete or masonry apron us-ing chemical emulsion @ 2.25 litres per linear metre includ- ing drilling and plugging holes etc.:		
2.35.2.1	With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	metre	26.75
2.35.3	Treatment of soil under existing floors using chemical emul- sion @ 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:		
2.35.3.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	sqm	133.90
2.35.4	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm 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 :		
2.35.4.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	metre	20.20
2.35.5	Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/ 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 150 mm centre to centre and sealing the same.	metre	239.50
2.36	Extra for levelling & neatly dressing of disposed soil completely as directed by Engineer-in-charge.	cum	37.75
2.37	Supply and stacking of Fly ash conforming to IRC- 58 at site, including carriage, loading , unloading & stacking up to any lead (measured stacks will be reduced by 20% for payment).	cum	155.35

Code No.	Description	Unit	Rate
2.38	Filling with available fly ash and earth (excluding rock) in trenches or embankment in layers (each layer should not exceed 15 cm), with intermediate layer of compacted earth (Soil density of 98%) after every four layers of compacted depth of fly ash, sides & top layer of filling shall be done with earth having total minimum compacted thickness 30 cm or as decided by Engineer - in-charge, including compacting each layer by rolling/ ramming and watering, all complete as per drawing and direction of Engineer -in - charge.	cum	124.50

SUB HEAD : 3.0

MORTAR

Note : These rates are exclusive of water charges, overheads and contractor's profit.

Code No.	Description	Unit	Rate
3.1	Cement mortar 1:1 (1 cement : 1 fine sand)	cum	6195.80
3.2	Cement mortar 1:2 (1 cement : 2 fine sand).	cum	4723.10
3.3	Cement mortar 1:3 (1 cement : 3 fine sand).	cum	3988.00
3.4	Cement mortar 1:4 (1 cement : 4 fine sand).	cum	3333.55
3.5	Cement mortar 1:5 (1 cement : 5 fine sand).	cum	2981.15
3.6	Cement mortar 1:6 (1 cement : 6 fine sand).	cum	2679.10
3.7	Cement mortar 1:2 (1 cement : 2 coarse sand).	cum	5150.60
3.8	Cement mortar 1:3 (1 cement : 3 coarse sand).	cum	4469.50
3.9	Cement mortar 1:4 (1 cement : 4 coarse sand).	cum	3815.05
3.10	Cement mortar 1:5 (1 cement : 5 coarse sand).	cum	3462.65
3.11	Cement mortar 1:6 (1 cement : 6 coarse sand).	cum	3160.60
3.12	Cement mortar 1:2 (1 cement : 2 stone dust).	cum	4913.10
3.13	Cement mortar 1:2 (1 cement : 2 marble dust).	cum	4941.60
3.14	Cement mortar 1:5 (1 cement : 5 marble dust).	cum	3227.25
3.15	White cement mortar 1:2 (1 white cement : 2 marble dust).	cum	9198.40
3.16	White cement mortar 1:3 (1 white cement : 3 marble dust).	cum	7426.70
3.17	White cement mortar 1:5 (1 white cement : 5 marble dust).	cum	5167.85
3.18	Mud mortar	cum	494.30
3.19	Mortar in lime, surkhi (50% red and 50% light yellow) and marble dust 1:1.5:0.5	cum	2482.10

SUB HEAD : 4.0

CONCRETE WORK

Code No.	Description	Unit	Rate
CEMENT CONCRET (CAST IN SITU)			
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		
4.1.2	1:1½:3 (1 Cement: 1½ coarse sand) : 3 graded stone aggregate 20 mm nominal size)	cum	6376.30
4.1.3	1:2:4 (1 cement : 2 coarse sand) : 4 graded stone aggregate 20 mm nominal size)	cum	5954.35
4.1.4	1:2:4 (1 Cement : 2 coarse sand) : 4 graded stone aggregate 40 mm nominal size)	cum	5846.00
4.1.5	1:3:6 (1 Cement : 3 coarse sand) : 6 graded stone aggregate 20 mm nominal size)	cum	5424.85
4.1.6	1:3:6 (1 Cement : 3 coarse sand): 6 graded stone aggregate 40 mm nominal size)	cum	5291.95
4.1.8	1:4:8 (1 Cement : 4 coarse sand) : 8 graded stone aggregate 40 mm nominal size)	cum	4955.20
4.1.10	1:5:10 (1 cement : 5 coarse sand): 10 graded stone aggregate 40 mm nominal size)	cum	4685.75
4.1.11	1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)	cum	4390.60
4.1.12	1:2:3½:9 (1 ordinary portland cement : 2 Fly ash : 3½ coarse sand) : 9 graded stone aggregate 40 mm nominal size)	cum	4795.10
4.1.13	1:2½:4:11 (1 ordinary portland cement : 2½ fly ash : 4 coarse sand) : 11 graded stone aggregate 40 mm nominal size)	cum	4467.20
4.2	Providing and laying cement concrete 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, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing:		
4.2.2	1:1½:3 (1 cement : 1½ coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	7529.05

Code No.	Description	Unit	Rate
4.2.3	1:2:4 (1 Cement : 2 coarse sand) : 4 graded stone aggregate 20 mm nominal size)	cum	7107.10
4.2.5	1:3:6 (1 cement : 3 coarse sand) : 6 graded stone aggregate 20 mm nominal size)	cum	6577.55
4.2.8	1:5:10 (1 cement : 5 coarse sand) : 10 graded stone aggregate 40 mm nominal size).	cum	5836.00
4.3	Centering and shuttering including strutting, propping etc. and removal of form work for :		
4.3.1	Foundations, footings, bases for columns	sqm	216.45
4.3.2	Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	sqm	411.15
4.3.3	Columns, piers, abutments, pillars, posts and struts	sqm	514.75
4.4	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing.		
4.4.1	1:1½:3 (1 Cement: 1½ coarse sand) : 3 graded stone aggregate 20 mm nominal size)	cum	6376.30
CEMENT CONCRETE PRECAST			
4.5	Providing and fixing up to floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc., including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), cost of required Centering complete.		
4.5.1	1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20mm nominal size)	cum	7306.30
4.6	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), including the cost of required centering, shuttering complete.		
4.6.1	1:1½:3 (1 Cement: 1½ coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	6672.60
4.7	Providing and fixing up to floor five level precast cement concrete solid block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete :		

Code No.	Description	Unit	Rate
4.7.1	1:1½:3 (1 Cement: 1½ coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	10743.50
4.8	Providing and fixing up to floor five level precast cement concrete hollow block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete.		
4.8.1	1:1½:3 (1 Cement: 1½ coarse sand): 3 graded stone aggregate 20 mm nominal size).	cum	8342.05
4.9	Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand) : 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250x250x450mm deep for the same in bitumen/concrete pavement at specified spacing.	each	619.25
DAMP-PROOF COURSE			
4.10	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand): 4 graded stone aggregate 12.5mm nominal size)	sqm	284.20
4.11	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand) : 4 graded stone aggregate 20mm nominal size).	sqm	346.85
4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	per 50kg cement	56.55
4.13	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sqm	95.85
MISCELLANEOUS			
4.14	Extra for concrete work in superstructure above floor V level for each four floors or part thereof.	cum	643.90
4.15	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.	cum per metre depth	492.45

Code No.	Description	Unit	Rate
Note for item No. 4.15 :- 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 0.1m. 0.05m or more shall be taken as 0.1m and less than 0.05m ignored.			
4.16	Extra for laying concrete in or under foul positions.	cum	194.45
4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	478.85
4.18	Extra for addition of synthetic Polyester triangular fibre of length 12mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement concrete / RCC / Flooring / water retaining structures by using 125gms of synthetic Polyester triangular fibre for 50 Kg cement used as per directions of Engineer-in-Charge.	per bag of 50kg of cement	61.05
4.19	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. Note : (1) Excess/less cement used than specified in this item is payable/recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 -2000 in the items of BMC and RMC.		
4.19.1	All works upto plinth level:		

Code No.	Description	Unit	Rate
4.19.1.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	6676.35
4.19.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	6536.80
4.19.2	All works above plinth and upto floor V level:		
4.19.2.1	M-15 grade plain cement concrete (cement content considered @ 240 kg /cum)	cum	7202.35
4.19.2.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	7062.85
<p>Note :- The above item shall be used judiciously where specified quality of Fly Ash is available for mixing in concrete. Also, the guidelines issued by CDO, CPWD, vide circular no. CDO/SE(RR)/Fly Ash (Main)/102 dated 9th April 2009 shall be followed in such cases.</p>			
4.20	Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Enainee- in-charge.		
<p>Note : (1) Excess/less cement used than specified in this item is payable /recoverable separately.</p>			
4.20.1	All works upto plinth level :		
4.20.1.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	6838.55
4.20.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	6699.00
4.20.2	All works above plinth and upto floor V level :		
4.20.2.1	M-15 grade plain cement concrete. (cement content considered @ 240 kg/cum)	cum	7364.55

Code No.	Description	Unit	Rate
4.20.2.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	7225.05

SUB HEAD : 5.0

REINFORCED CEMENT CONCRETE

Code No.	Description	Unit	Unit
CAST IN SITU			
5.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :		
5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size)	cum	6656.05
5.1.3	1:2:4 (1 cement : 2 coarse sand) : 4 graded stone aggregate 20 mm nominal size)	cum	6234.10
5.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :		
5.2.2	1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size)	cum	7633.20
5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	7835.75
5.4	Providing and laying up to floor five level reinforced cement concrete in kerbs, steps and the like excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	7374.75
5.5	Reinforced cement concrete work in arches, archribs, domes, vaults, shells, folded plate and roofs having slope more than 15° up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	8144.90

Code No.	Description	Unit	Unit
5.6	Reinforced cement concrete work in chimneys, shafts, up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	7744.80
5.7	Reinforced cement concrete work in well-steining, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	6410.65
5.8	Reinforced cement concrete work in vertical and horizontal fins individually or forming box louvers, facias and eaves boards above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1½:3 (1 cement : 1½ coarse sand) : 3 graded stone aggregate 20mm nominal size).	cum	7195.10
FORM WORK			
5.9	Centering and shuttering including strutting, propping etc. and removal of form for :		
5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	sqm	216.45
5.9.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	sqm	411.15
5.9.3	Suspended floors, roofs, landings, balconies and access platform	sqm	468.30
5.9.4	Shelves (Cast in situ)	sqm	468.30
5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	387.15
5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	514.75
5.9.7	Stairs, (excluding landings) except spiral-staircases	sqm	444.40
5.9.8	Spiral staircases (including landing)	sqm	414.60
5.9.9	Arches, domes, vaults up to 6 m span	sqm	1190.75
5.9.10	Extra for arches, domes, vaults exceeding 6 m span	sqm	512.10
5.9.11	Chimneys and shafts	sqm	411.15
5.9.12	Well steining	sqm	246.40

Code No.	Description	Unit	Unit
5.9.13	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards	sqm	690.05
5.9.14	Extra for shuttering in circular work (20% of respective centering and shuttering items)	sqm	20.00%
5.9.15	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	sqm	216.45
5.9.16	Edges of slabs and breaks in floors and walls		
5.9.16.1	Under 20 cm wide	metre	131.50
5.9.16.2	Above 20 cm wide	sqm	576.00
5.9.17	Cornices and mouldings	sqm	626.20
5.9.18	Small surfaces such as cantilever ends, brackets and ends of steps, caps and bases to pilasters and columns and the like	sqm	544.15
5.9.19	Weather shade, Chajjas, corbels etc., including edges	sqm	555.55
5.9.20	Suspended floors, roofs, landings, balconies and access platform with water proof ply 12 mm thick	sqm	550.20
5.9.21	Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proof ply 12 mm thick	sqm	468.05
5.10	Providing and fixing tie bolt, spring coil and plastic cone in wall shuttering complete as per the direction of Engineer-in-charge.		
5.10.1	12 mm dia. & 100 mm length	each set	140.80
5.10.2	12 mm dia. & 150 mm length	each set	154.20
5.10.3	20 mm dia. & 150 mm length	each set	166.25
5.10.4	20 mm dia. & 225 mm length	each set	179.60
5.11	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured)		
5.11.1	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	sqm	184.85

PRE-CAST RCC

Code No.	Description	Unit	Unit
5.12	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but , excluding cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	7497.75
5.13	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5m clear span up to floor five level, including the cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zonell)) : 3 graded stone aggregate 20 mm nominal size).	cum	10111.35
5.14	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in mouldings as in cornices, windows sills etc, including setting in cement mortar 1:3 (1 cement : 3 coarse sand) cost of required centering, shuttering but, excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	11368.40
5.15	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in lintels, beams and bressumers, including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering and shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size)	cum	9527.45
5.16	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but, excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size).	cum	14035.25

Code No.	Description	Unit	Unit
5.17	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in vertical & horizontal fins, individually or forming box louvers, setting in cement mortar 1:2 (1 cement : 2 coarse sand), including the cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zonelll) : 3 graded stone aggregate 20 mm nominal size).	cum	8331.55
5.18	Providing 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 centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits		
5.18.1	50 mm thick	sqm	1094.00
5.18.2	40 mm thick	sqm	983.10
5.18.3	25 mm thick	sqm	862.15
ENCASING ROLLED STEEL SECTION			
5.19	Encasing rolled steel sections, in beams and columns, with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand) : 3 graded stone aggregate 20 mm nominal size), including centering and shuttering complete but , excluding cost of reinforcement.	cum	10438.40
5.20	Encasing rolled steel section in grillages with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand): 3 graded stone aggregate 20 mm nominal size), including centering and shuttering but, excluding cost of expanded metal and hangers.	cum	6697.00
5.21	Extra for providing and fixing expanded metal mesh of size 20x60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg per sqm for encasing of rolled steel sections in beams, columns and grillages, excluding cost of hangers.	sqm	427.25
STEEL REINFORCEMENT			
5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.		
5.22.1	Mild steel and Medium Tensile steel bars	Kg	75.40
5.22.2	Hard drawn steel wire	Kg	78.95

Code No.	Description	Unit	Unit
5.22.3	Cold twisted bars	Kg	76.85
5.22.4	Hot rolled deformed bars	Kg	76.85
5.22.5	Hard drawn steel wire fabric	Kg	86.55
5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	76.85
5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level		
5.22A.1	Mild steel and Medium Tensile steel bars	Kg	75.45
5.22A.2	Hard drawn steel wire	Kg	78.95
5.22A.3	Cold twisted bars	Kg	76.85
5.22A.4	Hot rolled deformed bars	Kg	76.85
5.22A.5	Hard drawn steel wire fabric	Kg	86.55
5.22A.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	76.85
5.22B	Steel reinforcement for R.C.C. work ready to use "cut and bend" rebars of approved make from factory/workshop to construction site including placing in position and binding all complete upto plinth level.		
5.22B.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	73.65
5.22.C	Steel reinforcement for R.C.C. work ready to use "cut and bend" rebars of approved make from factory/workshop to construction site including placing in position and binding all complete above plinth level.		
5.22C.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	73.65
MISCELLANEOUS			
5.23	Smooth finishing of the exposed surface of R.C.C. work with 6 mm thick cement mortar 1:3 (1 Cement : 3 fine sand).	sqm	142.35
5.24	Extra for rendering smooth the top of suspended floors, landings and staircases (treads and risers) with cement mortar 1:2 (1 cement : 2 coarse sand), including a floating coat of neat cement and protecting the surface with a layer of 7.5 cm of earth laid over 15 mm of fine sand in case of suspended floor and bricks laid in mud mortar in case of landings and steps, including subsequent removal and cleaning of the same.	sqm	101.30

Code No.	Description	Unit	Unit
5.25	Providing and fixing in position copper plate as per design for expansion joints.	Kg	718.55
5.26	Providing and filling in position, blown bitumen in expansion joints.	Cum	57542.45
5.27	Providing and filling in position bitumen mix filler of proportion 80 kg. of hot bitumen, 1 kg. of cement and 0.25 cubic metre of coarse sand for expansion joints.	cum	17086.75
5.28	Providing and fixing in position 12mm thick bitumen impregnated fiber board conforming to IS: 1838, including cost of primer, sealing compound Grade-A in expansion joints.	per cm depth per 100m	540.60
5.29	Providing and fixing sheet covering over expansion joints with iron screws as per design.		
5.29.1	Non-asbestos fibre cement board 6 mm thick as per IS: 14862.		
5.29.1.1	150mm wide	metre	142.20
5.29.1.2	200mm wide	metre	191.00
5.29.2	Aluminium fluted strips 3.15 mm thick.		
5.29.2.1	150 mm wide	metre	444.80
5.29.2.2	200 mm wide	metre	590.45
5.29.3	Cement bonded wood particle board 6mm thick as per IS : 14276		
5.29.3.1	150 mm wide	metre	139.05
5.29.3.2	200 mm wide	metre	186.80
5.30	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	metre	35.65
5.31	Extra for laying reinforced cement concrete in or under water and/ or liquid mud, including cost of pumping or bailing out water and removing slush etc., complete.	cum	492.45
<p>Note For Item No. 5.31:- The quantity will be calculated by multiplying the depth measured from the subsoil water level up to the centre of gravity of the R.C.C. under subsoil water with the quantity of R.C.C. in cubic metre executed under subsoil 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. No extra payment shall be made for placing reinforcement or centering & shuttering under sub - soil water conditions.</p>			

Code No.	Description	Unit	Unit
5.32	Extra for laying reinforced cement concrete in or under foul positions.	cum	194.45

DESIGN MIX CONCRETE

5.33 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.

(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).

5.33.1	All works upto plinth level	cum	6934.90
5.33.2	All works above plinth level upto floor V level	cum	7741.90

5.34 Extra for providing richer mixes at all floor levels.

Note:- Excess/less cement over the specified cement content used is payable /recoverable separately.

5.34.1	Providing M-30 grade concrete instead of M-25 grade BMC/ RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum)	cum	69.75
5.34.2	Providing M-35 grade concrete instead of M-25 grade BMC/ RMC. (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	139.55
5.34.3	Providing M-40 grade concrete instead of M-25 grade BMC/ RMC.(Note : Cement content considered in M-40 is @ 360 kg/ cum)	cum	209.30
5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	673.55

Code No.	Description	Unit	Unit
5.36	Providing and placing in position precast reinforced cement concrete waffle units, square or rectangular, as per design and shape for floors and roofs in 1:1½:3 (1 Cement : 1½ coarse sand) : 3 graded stone aggregate 10 mm nominal size), including flush or deep ruled pointing at joints in Cement mortar 1:2 (1 Cement : 2 Fine sand), making necessary holes of required sizes for carrying through service lines etc., providing steel hooks for lifting etc, form work in precasting, handling, hoisting, centering and erection complete for all floor levels but, excluding the cost of reinforcement.	cum	19005.65
5.37	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge.		
	(Note :- Cement content considered in this item is @ 330 kg/ cum.Excess/less cement used as per design mix is payable/recoverable separately).		
5.37.1	All works upto plinth level	cum	7336.25
5.37.2	All works above plinth level upto floor V level	cum	8143.25
5.38	Extra for R.C.C./ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	cum	280.95

Code No.	Description	Unit	Unit
5.40	<p>Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix, and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering, finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.</p> <p>NOTE- (1) Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456 -2000 in the items of BMC and RMC.</p>		
5.40.1	All works up to Plinth level.	cum	7304.20
5.40.2	All works above plinth & up to floor V level.	cum	8111.20
	<p>Note :- The above item shall be used judiciously where specified quality of Fly Ash is available for mixing in concrete. Also, the guidelines issued by CDO, CPWD, vide circular no. CDO/SE(RR)/Fly Ash (Main)/102 dated 9th April 2009 shall be followed in such cases.</p>		
5.41	Supplying and applying pre tested and approved water based concrete curing compound to concrete/ masonry surface, all as per manufacturer's specification and direction of Engineer-in-charge.		
5.41.1	Non pigmented wet curing compound	sqm	35.05
5.42	Providing and fixing parallel threaded couplers conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification", to reinforcement bars including threading, enlargement at connection by forging, protecting the prepared reinforcement bars and related operations as required to complete the works per direction of Engineer-in-Charge.		

Code No.	Description	Unit	Unit
5.42.1	Coupler for 16 mm diameter reinforcement bar	each	97.80
5.42.2	Coupler for 20 mm diameter reinforcement bar	each	135.30
5.42.3	Coupler for 25 mm diameter reinforcement bar	each	195.45
5.42.4	Coupler for 28 mm diameter reinforcement bar	each	228.55
5.42.5	Coupler for 32 mm diameter reinforcement bar	each	275.75
5.43	Providing and fixing in position Stainless steel Grade 304 plate-1.0 mm thick as per design for expansion joints.		
5.43.1	200 mm wide.	metre	663.35
5.43.2	300 mm wide.	metre	957.70
5.44	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminum base members, self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminum base member designed to accommodate various project conditions and finish floor treatments.		
	The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self- centering arrangement that freely rotates / moves in all directions. The Self - centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer -in- Charge. (Material shall confirm to ASTM 6063).		
5.44.1	Floor Joint of 100 mm gap	metre	5494.70

Code No.	Description	Unit	Unit
5.44.2	Floor Joint of 150 mm gap	metre	6749.00
5.44.3	Floor Joint of 200 mm gap	metre	8672.30
5.45	Providing and fixing of expansion joint system related with wall joint (internal/ external) location as per drawings and direction of Engineer-In- Charge. The joints shall be of extruded aluminum base members, self aligning / centering arrangement and support plates as per ASTM B221- 02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminum profiles exhibiting minimal exposed aluminum surfaces mechanically snap locking the multicellular to facilitate movement. (Material shall confirm to ASTM 6063).		
	5.45.1 Wall Joint of 100 mm gap	metre	4558.10
	5.45.2 Wall Joint of 150 mm gap	metre	5143.45
	5.45.3 Wall Joint of 200 mm gap	metre	5996.40
5.46	Providing and fixing of expansion joint system of approved make and manufactures for various roof locations as per approved drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members with, self aligning and self centering arragement support plates asper ASTM B221-02. The system shall be such that it provides watertight roof to roof/roof to corner joint cover expansion control system that is capable of accommodating multidirectional seismic movement without stress to its components. System shall consist of metal profile that incorporates a universal		

Code No.	Description	Unit	Unit
	<p>aluminum base member designed to accommodate various project conditions and roof treatments. The cover plate shall be designed of width and thickness required to satisfy movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self-centering arrangement that freely rotates / moves in all directions. The Self centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. The Joint System shall resists damage or deterioration from the impact of falling ice, exposure to UV, airborne contaminants and occasional foot traffic from maintenance personnel. Provision of Moisture Barrier Membrane in the Joint System to have water tight joint is mandatory requirement. (Material shall confirm to ASTM 6063.)</p>		
5.46.1	Roof Joint of 100 mm gap	metre	5093.30
5.46.2	Roof Joint of 150 mm gap	metre	5678.65
5.46.3	Roof Joint of 200 mm gap	metre	6799.15
5.47	<p>Providing and fixing in position factory made precast RCC M-40 fixing with hold fast embedded in 1:3:6 concrete block for doors and windows frames having excellent smooth finish as per IS: 6523 with reinforcement of 3 Nos, 6 mm dia main bars tied with 3 mm M.S stirrups placed @ 200 mm C/C and 6 numbers high strength polymer blocks of required size for fixing hinges including providing 6 no specially designed M.S. galvanised sleeves for accomodating 6 mm dia fully threaded bolts for fixing hold fast on vertical members, providing suitable arrangement for recieving sliding door bolts and tower bolt etc all complete, as per the direction of Engineer in charge. The frame shall be measured in running metre correct to two places of decimal.</p>		
5.47.1	Door frame 125 mmx 60 mm	metre	501.40
5.47.2	Door frame 100 mmx 60 mm	metre	461.05
5.47.3	Door frame 85 mmx60 mm	metre	439.85

Code No.	Description	Unit	Unit
5.48	<p>Providing and laying Reinforced cement concrete for construction of piers, abutments, portal frames, pier caps and bearing pedestals and seismic arresters over pier/ abutment caps at all locations with specified grade using Ordinary Portland Cement (conforming to strength requirement of IS:8112) including the cost of steel centering and shuttering etc. complete including testing of materials etc. for casting pier & pier cap in one/two stage, necessary tools, plants, machinery and all related operations as required to complete the work as per drawings and Specifications with all leads, lifts and depths true to level and position but excluding the cost of providing reinforcement. (Reinforcement shall be measured and paid separately.)</p> <p>Note:- Cement content considered in this item is 480 Kg./ Cum. Excess/ less cement used as per design mix is payable/ recoverable separately.</p>		
	<p>5.48.1 Reinforced Cement Concrete -M-50</p> <p>5.48.2 Reinforced Cement Concrete -M-60</p> <p>5.48.3 Extra for using M -50/ M-60 Grade Self-compacting Cement Concrete</p>	<p>cum</p> <p>cum</p> <p>cum</p>	<p>7350.55</p> <p>8607.00</p> <p>756.55</p>
5.49	<p>Constructing cast-in situ RCC diaphragm wall by providing and laying machine batched, machine mixed, self compacting, ready mix reinforced cement concrete, tramie controlled, of M 30 grade using minimum 400 kg. cement per cum of concrete including providing and mixing required admixtures in recommended proportions as per IS : 9103, as approved by the Engineer-in-charge, for achieving 150- 200mm slump, for diaphragm wall having thickness as per approved structural design not exceeding 600 mm, in pannels of required depth and lengths as per approved drawing, including constructing necessary guide walls as required and as specified including boring in all kinds of soils and rocks, including working in or under water and / or liquid mud, in foul conditions and pumping or bailing out of water and removing slush, including disposal of earth/ rock / slush etc. for all leads and all lifts, including preparing, providing and re-circulating bentonite slurry in</p>		

Code No.	Description	Unit	Unit
	<p>the trench as and when required for all depths, including agitating bentonite slurry during trenching etc., providing and fixing stop ends or form tubes, upto the required depth of diaphragm wall including extracting the same after casting, including chipping off the bentonite adulterated concrete or unsound concrete up to the cut off level for obtaining the sound concrete, dressing undulations on the exposed face of diaphragm wall after excavation by chipping / chiseling etc. including filling the depression/ cavities with sound concrete etc. complete and as directed by the Engineer-in-charge, including providing recess for bearing plates and fixing insert boxes for inclined rock anchors etc. complete as per the specifications and approved design and as directed by the Engineer-in-charge, but excluding the cost of reinforcement and inserts. (rates include cost of all inputs of labour, material and T & P, cost of handling, lifting & placing in position the reinforcement cage in the trench, including the additional cost of welding the reinforcement bars etc. involved in the work and all other incidental expenditure for completing the work as directed by the Engineer-in-charge), However, the actual area of the diaphragm wall, correct to two places of decimal, from design bottom level to the design cut off level (including portion anchored in the rock upto the design bottom level) only shall be measured for payment. "Excess/less cement used for design mix including the extra cement required for under water concreting is payable / recoverable separately.</p> <p>"Excess/less cement used for design mix including the extra cement required for under water concreting is payable / recoverable separately.</p>	cum	15134.55

SUB HEAD : 6.0

BRICK WORK

Code No.	Description	Unit	Rate
6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:		
6.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	5528.25
6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5309.35
6.2	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:		
6.2.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	4803.00
6.2.2	Cement Mortar 1:6 (1 cement : 6 coarse sand).	cum	4610.35
6.3	Brick work with common burnt clay machine moulded perforated bricks of class designation 12.5 conforming to IS: 2222 in superstructure above plinth level up to floor five level in cement mortar 1:6 (1 cement : 6 coarse sand) :		
6.3.1	With F.P.S.(non modular) bricks	cum	6296.15
6.3.2	With Modular bricks	cum	6230.90
6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :		
6.4.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	6382.90
6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6164.00
6.5	Extra for brick work / AAC block masonry / Tile brick masonry in superstructure above floor V level, for each four floors or part thereof by mechanical means.	cum	236.65
6.6	Extra for forming cavity 5 cm to 11.5 cm wide in cavity walls with necessary weep and vent holes including use of cores and cost of providing and fixing bitumastic coated M .S. ties 300 mm long of 25x3 mm section at not less than 3 ties per sqm as per approved design.	sqm	119.00

Code No.	Description	Unit	Rate
6.7	Providing half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in cement mortar 1:3 (1 Cement : 3 coarse sand) in superstructure for closing cavity 5 to 7.5 cm wide in cavity wall complete with 10cm / 11.4 cm wide bitumen felt type 3 grade 1.	metre	211.20
6.8	Brick work 7 cm thick with common burnt clay F.P.S. (non modular) brick of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure above plinth level and upto floor five level.	sqm	579.70
6.9	Brick work in plain arches in superstructure above plinth level and upto floor five level including centering and shuttering complete for span up to 6 metres with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand).	cum	9550.20
6.10	Brick work in gauged arches in superstructure above plinth level and upto floor five level in cement mortar 1:3 (1 cement : 3 coarse sand) including centering and shuttering complete, for span up to 6 meters with common burnt clay F.P.S. (non modular) bricks of class designation 7.5.	cum	11428.80
6.11	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).	sqm	512.10

HALF BRICK MASONRY

6.12	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in :		
6.12.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	sqm	680.40
6.12.2	cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	655.90
6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.		
6.13.1	Cement mortar 1:3 (1 cement :3 coarse sand)	sqm	772.15
6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	sqm	747.65
6.14	Extra for half brick masonry in superstructure, above floor V level for every four floors or part thereof by mechanical means.	sqm	20.95
6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	sqm	80.15

Code No.	Description	Unit	Rate
BRICK TILE WORK			
6.16	Tile brick masonry with common burnt clay F.P.S. (non modular) tile bricks of class designation 10 in foundation and plinth in:		
6.16.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	8451.95
6.16.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	8101.70
6.17	Tile brick masonry with common burnt clay machine moulded tile bricks of class designation 12.5 conforming to IS : 2690 (Part I) in foundation and plinth in cement mortar 1:6 (1 cement : 6 coarse sand).	cum	8517.55
6.18	Tile brick masonry with common burnt clay F.P.S. (non modular) tile bricks of class designation 10 in superstructure above plinth level up to floor V level in cement mortar 1:6 (1 cement : 6 coarse sand).	cum	9016.40
6.20	Tile brick masonry with common burnt clay F.P.S. (non modular) tile bricks of class designation 10 in plain arch work in superstructure above plinth and upto floor five level in cement mortar 1:4 (1 cement : 4 coarse sand) including centering and shuttering complete.	cum	12233.10
6.21	Tile brick masonry with common burnt clay F.P.S. (non modular) tile bricks of class designation 10 in gauged arch work in superstructure above plinth and upto floor five level in cement mortar 1:4 (1 cement : 4 coarse sand) including centering and shuttering complete.	cum	14038.50
6.22	Tile brick masonry work 5 cm thick with common burnt clay F.P.S. (non modular) tile bricks of class designation 10 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure above plinth and upto floor five level.	sqm	584.60
HONEY COMB WORK			
6.23	Honey-comb brick work 10 / 11.4 cm thick with common burnt clay bricks of class designation 7.5 in super structure above plinth level upto floor V level with cement mortar 1:4 (1 cement : 4 coarse sand).	sqm	495.75
6.24	Extra for laying brick work in or under water and/ or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.	cum per metre depth	492.45

Code No.	Description	Unit	Rate
NOTE :- The quantity will be calculated by multiplying the depth measured from sub - soil water level up to the centre of gravity of brick work under sub - soil water with the quantity of brick work in cum. executed under the 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.			
6.25	Extra for laying brick work in or under foul position.	cum	194.45
EXPOSED BRICK WALL			
6.26	Brick work with common burnt clay selected F.P.S. (non modular) bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand)		
6.26.1	From ground level upto plinth level	cum	5420.35
6.26.2	Above plinth level upto floor V level	cum	6317.90
6.27	Brick work with common burnt clay modular bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand).		
6.27.1	From ground level upto plinth level	cum	4646.90
6.27.2	Above plinth level upto floor V level	cum	5501.50
6.28	Brick work with common burnt clay machine moulded modular bricks of class designation 12.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand).		
6.28.1	From ground level upto plinth level	cum	5298.45
6.28.2	Above plinth level upto floor V level	cum	6153.10
6.29	Brick work with common burnt clay machine moulded F.P.S. (non modular) bricks of class designation 12.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand).		
6.29.1	From ground level upto plinth level	cum	5676.35
6.29.2	Above plinth level upto floor V level	cum	6496.85

Code No.	Description	Unit	Rate
6.30	Brick work with common burnt clay machine moulded perforated F.P.S. (non modular) bricks of class designation 12.5 conforming IS : 2222 in exposed brick work including making horizontal and vertical grooves 10mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand).		
6.30.1	From ground level upto plinth level	cum	5478.05
6.30.2	Above plinth level upto floor V level	cum	6332.70
6.31	Brick work with common burnt clay machine moulded perforated modular bricks of class designation 12.5 conforming to IS : 2222 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand).		
6.31.1	From ground level upto plinth level	cum	5428.75
6.31.2	Above plinth level upto floor V level	cum	6283.40
6.32	Brick work with clay flyash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :		
6.32.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	6545.35
6.32.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6326.45
6.34	Brick work with non modular fly ash bricks conforming to IS:12894, class designation 10 average compressive strength in super structure above plinth level up to floor V level in :		
6.34.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	6054.65
6.34.2	Cement mortar 1:6 (1 cement : 6 Coarse sand)	cum	5862.00
6.35	Brick work with modular calcium silicate bricks machine moulded conforming to IS:4139, class designation 10 average compressive strength in super structure above plinth level up to floor V level in :		
6.35.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	6771.35
6.35.2	Cement mortar 1:6 (1 cement : 6 Coarse sand)	cum	6578.75
6.36	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) in foundation and plinth :		
6.36.1	Cement Mortar 1:4 (1 cement : 4 coarse sand)	cum	5715.20

Code No.	Description	Unit	Rate
6.37	Brick work with modular extruded brunt fly ash clay sewer bricks (conforming to IS : 4885) in arches in foundation and plinth in cementmortar 1:3 (1 cement : 3 fine sand).	cum	9085.50
6.38	Providing and laying autoclaved aerated cement blocks masonry with 100 mm thick AAC blocks in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	cum	6957.55
6.40	Providing and laying Gypsum panel partitions 100 mm thick with water proof Gypsum panels of size 666x500x100 mm, made of calcite phosphor Gypsum fixed with tongue and groove, jointed with bonding plaster as per manufacturer's specifications in superstructure above plinth level up to floor V level. Gypsum blocks will have a minimum compressive strength of 9.3 kg/cm ²	sqm	804.20
6.41	Extra for Gypsum panel Partitions in superstructure above floor V level for every four floors or part thereof.	sqm	74.25
6.44	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	metre	43.10
6.45	Half brick masonry with non modular fly ash bricks of class designation 10, conforming to IS :12894, in super structure above plinth and upto floor V level.		
6.45.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	sqm	757.05
6.45.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	sqm	732.55
6.47	Providing and laying autoclaved aerated cement blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for separately).	cum	5570.80

SUB HEAD : 7.0

STONE WORK

Code No.	Description	Unit	Rate
RANDOM RUBBLE MASONRY			
7.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :		
7.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5002.35
7.2	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like.		
7.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5843.55
7.4	Extra for random rubble masonry with hard stone in :		
7.4.1	Square or rectangular pillars	cum	406.50
7.4.2	Circular pillars	cum	1337.00
7.5	Extra for random rubble masonry with hard stone curved on plan for a mean radius not exceeding 6 m.	cum	526.65
COURSED RUBBLE MASONRY			
7.6	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with :		
7.6.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5720.65
7.7	Coursed rubble masonry (second sort) with hard stone in foundation & plinth with :		
7.7.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5360.00
7.8	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level.		
7.8.1	Masonry work (first sort), in cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6550.90
7.8.2	Masonry work (second sort), in cement mortar 1:6 (1 cement: 6 coarse sand)	cum	6190.25
7.10	Extra for coursed rubble masonry with hard stone (first or second sort) in:		
7.10.1	Square or rectangular pillars	cum	451.60

Code No.	Description	Unit	Rate
7.10.2	Circular pillars	cum	1511.40
7.11	Extra for coursed rubble masonry with hard stone (first or second sort) curved on plan for a mean radius not exceeding 6 m.	cum	573.10
ASHLAR MASONRY			
7.12	Stone work in plain ashlar in super structure upto floor five level in cement mortar 1:6 (1 cement : 6 coarse sand) including pointing with cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade :		
7.12.1	One face dressed		
7.12.1.1	Red sand stone	cum	33889.00
7.12.1.2	White sand stone	cum	56361.00
7.12.2	Both face dressed		
7.12.2.1	Red sand stone	cum	43402.00
7.12.2.2	White sand stone	cum	65874.00
7.13	Stone work plain ashlar in arches in super structure upto floor V level in cement mortar 1:3 (1 cement : 3 coarse sand) including centering, shuttering and pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.		
7.13.1	One face dressed		
7.13.1.1	Red sand stone	cum	39664.00
7.13.1.2	White sand stone	cum	62135.00
7.13.2	Both face dressed		
7.13.2.1	Red sand stone	cum	49177.00
7.13.2.2	White sand stone	cum	71649.00
7.14	Stone work plain ashlar in domes , in super structure upto floor V level in cement mortar 1:3 (1 cement : 3 coarse sand) including centering, shuttering and pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.		
7.14.1	One face dressed		
7.14.1.1	Red sand stone	cum	60534.00
7.14.1.2	White sand stone	cum	83006.00
7.14.2	Both face dressed		
7.14.2.1	Red sand stone	cum	85666.00

Code No.	Description	Unit	Rate
7.14.2.2	White sand stone	cum	108137.00
7.15	Stone work ashlar punched (ordinary) in superstructure upto floor five level in cement mortar 1:6 (1 white cement : 6 coarse sand) including pointing with cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.		
7.15.1	One face dressed		
7.15.1.1	Red sand stone	cum	32436.00
7.15.1.2	White sand stone	cum	54908.00
7.15.2	Both faced punched		
7.15.2.1	Red sand stone	cum	40496.00
7.15.2.2	White sand stone	cum	62968.00
7.16	Extra for stone work, random rubble / coursed rubble masonry / ashlar masonry above floor V level for every four floors or part thereof.	cum	859.00
7.17	Extra for plain ashlar or ashlar punched in :		
7.17.1	Square or rectangular pillars	cum	2400.00
7.18	Extra for stone work; plain ashlar or ashlar punched curved on plan with a mean radius not exceeding 6 m.	cum	1670.00
7.19	Extra for additional cost of centering for arches exceeding 6m span including all strutting, bolting, wedging etc. and removal (area of soffit to be measured).	sqm	512.10
SUNK, MOULDED, CARVED ASHLAR MASONRY			
7.20	Stone work ashlar sunk or moulded or sunk and moulded upto floor five level in cement mortar 1:6 (1 cement : 6 coarse sand) including pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade :		
7.20.1	Red sand stone	cum	46217.00
7.20.2	White sand stone	cum	68689.00
7.21	Extra for stone work ashlar sunk or moulded or sunk and moulded or carved in :		
7.21.1	Triangular or Square or rectangular pillars	cum	3131.00
7.21.2	Circular or polygonal pillars	cum	8871.00
7.22	Extra for stone work ashlar sunk or moulded in cornices.	per metre per cm girth (60cm deep)	127.20

Code No.	Description	Unit	Rate
MISCELLANEOUS STONE WORK			
7.24	Extra for stone work (veneer work) curved on plan with a mean radius not exceeding 6 m.	Cum	2400.00
7.26	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	45.50
7.28	Providing and fixing sloping chajja of stone 40 mm thick and upto 80 cm wide beyond the wall as measured along the slope in cement mortar 1:4 (1 cement : 4 coarse sand) with 12 mm diameter anchoring steel bar, 45 cm long, fixed in each stone and supported on and including with bricks cove in cement mortar 1:4 (1 cement : 4 coarse sand), including pointing in cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade :		
7.28.1	Red sand stone :		
7.28.1.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Sqm	1524.05
7.28.2	White sand stone :		
7.28.2.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Sqm	1524.05
7.29	Providing and fixing horizontal chajja of 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 :		
7.29.1	Red sand stone	sqm	943.55
7.29.2	White sand stone	sqm	943.55
7.30	30 mm red sand stone sun-shade (chisel-dressed) supported on red sand stone brackets, fixed in walls with cement mortar 1:4 (1 cement : 4 coarse sand), including finishing complete.	sqm	1102.30
7.31	Providing and fixing red sand stone brackets 55x22.5x45 cm sunk and moulded including providing and fixing with 4 Nos gun metal cramp 25x6 mm 30 cm long	each	3432.60
7.32	Stone work, plain in copings, cornices, string courses and plinth courses, upto 75 mm thick in Cement mortar 1:6 (1 cement : 6 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.		

Code No.	Description	Unit	Rate
7.32.1	Red sand stone	cum	45648.90
7.32.2	White sand stone	cum	68121.50
7.33	Providing and fixing stone jali 40 mm thick 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 slab without any chamfers etc.		
7.33.1	Red sand stone	sqm	6517.50
7.33.2	White sand stone	sqm	6517.50
7.34	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. NOTE :- The quantity will be calculated by multiplying the depth measured from sub-soil water level up to the centre of gravity of stone work under sub-water with the quantity of stone work in cum executed under the 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.	cum per metre depth	492.45
7.35	Extra for laying stone work in or under foul position.	cum	194.45
7.38	Stone tile work for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade.		
7.38.1	8mm thick (mirror polished and machine cut edge)		
7.38.1.1	Granite stone of any colour and shade	sqm	2019.50
7.38.1.2	Raj Nagar plain white marble/ Udaipur green marble/ Zebra black marble	sqm	1745.20

SUB HEAD : 8.0

MARBLE & GRANITE WORK

Code No.	Description	Unit	Rate
8.1	Marble work gang saw cut (polished and machine cut) of thickness 18 mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps, which shall be paid for separately)		
8.1.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble.		
8.1.1.1	Area of slab upto 0.50 sqm	sqm	3018.30
8.1.1.2	Area of slab over 0.50 sqm	sqm	3194.95
8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
8.2.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble		
8.2.1.1	Area of slab upto 0.50 sqm	sqm	2180.75
8.2.1.2	Area of slab over 0.50 sqm	sqm	2103.60
8.2.2	Granite of any colour and shade		
8.2.2.1	Area of slab upto 0.50 sqm	sqm	3620.70
8.2.2.2	Area of slab over 0.50 sqm	sqm	3558.60
8.3	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.		
8.3.1	Marble work	metre	156.90
8.3.2	Granite work	metre	265.15

Code No.	Description	Unit	Rate
8.4	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	299.80
8.5	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	each	467.40
8.6	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	sqm	229.25
8.7	Providing and fixing cramps of required size & shape in RCC/ CC / Brick masonry backing with cement mortar 1:2 (1 cement :2 coarse sand), including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately).		
8.7.1	Gunmetal cramps	kg	627.60
8.7.2	Stainless steel cramps	kg	612.30
8.8	Providing and fixing expansion hold fasteners on C.C. /R.C.C./Brick masonry surface backing including drilling necessary holes and the cost of bolt etc complete.		
8.8.1.1	Fastener with threaded dia 6 mm	each	27.45
8.8.1.2	Fastener with threaded dia 10 mm	each	27.80
8.8.1.3	Fastener with threaded dia 12 mm	each	49.50
8.9	Stone tile (polished) work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.		
8.9.1.1	Raj nagar plain white marble/ Udaipur green marble/ Zebra black marble	sqm	1843.90
8.9.1.2	Granite of any colour and shade	sqm	2255.30
8.10	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.		
8.10.1	White Agaria Marble Stone	sqm	3216.90

Code No.	Description	Unit	Rate
8.10.2	Granite Stone of approved shade	sqm	3216.90
8.11	Providing and fixing machine cut, mirror/ eggshell polished , Marble stone work for wall lining (veneer work) including dado, skirting, risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge.		
8.11.1	18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	7403.25
8.14	Stone work (machine cut edges) for wall lining etc. (veneer work) upto 10 metre height, backing filled with a grout of average 12 mm 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 and the sides by means of cramps and pins which shall be paid for separately) :		
8.14.1	Red sand stone - exposed face fine dressed with rough backing.		
8.14.1.1	70 mm thick	sqm	3038.20
8.14.1.2	60 mm thick	sqm	2893.40
8.14.1.3	50 mm thick	sqm	2748.90
8.14.1.4	40 mm thick sqm 4026.80	sqm	2603.80
8.14.1.5	30 mm thick	sqm	2458.90
8.14.2	Red sand stone - Exposed face machine cut and table rubbed with rough backing.		
8.14.2.1	70 mm thick	sqm	3975.40
8.14.2.2	60 mm thick	sqm	3830.60
8.14.2.3	50 mm thick	sqm	3686.10
8.14.2.4	40 mm thick	sqm	3541.00
8.14.2.5	30 mm thick	sqm	3396.10
8.14.3	White sand stone - exposed face fine dressed with rough backing .		
8.14.3.1	70 mm thick	sqm	4611.60
8.14.3.2	60 mm thick	sqm	4242.05

Code No.	Description		Unit	Rate
8.14.3.3	50 mm thick		sqm	3873.35
8.14.3.4	40 mm thick		sqm	3502.05
8.14.3.5	30 mm thick		sqm	3133.05
8.14.4	White sand stone - Exposed face machine cut and table rubbed with rough backing.			
8.14.4.1	70 mm thick		sqm	5548.75
8.14.4.2	60 mm thick		sqm	5179.25
8.14.4.3	50 mm thick		sqm	4810.55
8.14.4.4	40 mm thick		sqm	4439.20
8.14.4.5	30 mm thick		sqm	4070.25
8.14.5	Gang saw cut stone.			
8.14.5.1	30mm thick White sand stone		sqm	1883.20
8.14.5.2	30mm thick Red sand stone		sqm	1693.55
8.15	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	612.30
8.16	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	35.90
8.17	Wall lining butch work upto 10m height with Dholpur stone 40 mm thick rough facing on the exposed surface with stone strips of minimum length 300 mm and required width, including embedding every tenth layer and bottom most layer in masonry or concrete after making necessary chases of size 75x75 mm and by providing layer of 75 mm thick strips i/c 12 mm thick bed of cement mortar 1:3 (1 Cement : 3 coarse sand) i/c ruled pointing in cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment to match the shade of stone complete as per direction of Engineer-in-charge.		sqm	1851.00

Code No.	Description	Unit	Rate
8.18	Stone work (machine cut edges Veneer work) for wall lining upto 10 m height, backing filled with a grout of 12 mm thick cement mortar 1:3 (1 Cement : 3 coarse sand) and jointed with Cement mortar 1:2 (1 cement : 2 stone dust), including rubbing and polishing complete. (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately).		
8.18.1	Kota stone slabs exposed face dressed and rubbed.		
8.18.1.1	25 mm thick	sqm	1851.25
8.19	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	103.70
STONE WORK DRY CLADDING			
8.20	Providing and fixing dry cladding upto 10 metre heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately).		
8.20.1	8.20.1 Red sand stone - 30mm thick gang saw cut stone	sqm	1689.05
8.20.2	8.20.2 White sand stone - 30mm thick gang saw cut stone	sqm	1878.70
8.21	Providing and fixing structural steel frame (for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per architectural drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of M.S. brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1 cement : 2 coarse sand : 4 graded stone		

Code No.	Description	Unit	Rate
8.22	<p>aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by Engineer-in-charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-charge for approval before execution). The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid).</p>	kg	165.30
8.23	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	each	247.25
8.24	Providing and fixing expandable fasteners 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.	each	25.40
8.24.1	25 mm long	each	18.95
8.24.2	32 mm long	each	20.35
8.24.3	40 mm long	each	24.35
8.24.4	50 mm long	each	25.70
8.25	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface.		
8.25.1	40 mm thick	sqm	5946.25
8.25.2	25 mm thick	sqm	3866.25
8.25.3	20 mm thick	sqm	3121.65
8.25.4	12 mm thick	sqm	2012.30

Code No.	Description	Unit	Rate
8.26	Providing and fixing in wall lining flat pressed three layer (medium density) particle board or graded wood Pre-laminated one side decorative lamination and other side balancing lamination Grade I, Type II, IS : 12823 marked, including priming coat on unexposed arrangement and screws etc. complete :		
8.26.1	12 mm thick	sqm	1154.00
8.26.2	18 mm thick	sqm	1315.90
8.26.3	25 mm thick	sqm	1683.80
8.27	Providing and fixing specified wood frame work consisting of battens 50x25mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete.		
8.27.1	Kiln seasoned and chemically treated hollock wood	cum	149330.90
8.28	Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1), for plain lining / cladding with necessary screws, including priming coat on unexposed surface with :		
8.28.1	Decorative veneer facings of approved manufacture	sqm	1185.95
8.29	Providing and fixing 4mm thick coir veneer board, ISI marked IS : 14842, plain lining with necessary screws, priming coat on unexposed surface etc., complete.	sqm	1137.80
8.30	Providing and fixing skirting with Pre-laminated (one side decorative and other side balancing lamination) flat pressed 3 layer or graded particle board (medium density) Grade I, Type II, IS :12823 marked, with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. and priming coat on unexposed surface complete :		
8.30.1	18 mm thick	sqm	1775.65
8.30.2	25 mm thick	sqm	2143.55
8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	859.70

Code No.	Description	Unit	Rate
8.32	<p>Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:</p> <p>(a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.</p> <p>(b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.</p> <p>(c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium</p>		

Code No.	Description	Unit	Rate
	<p>item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.</p>	sqm	4309.80

SUB HEAD : 9.0

WOOD AND P. V. C. WORK

Code No.	Description	Unit	Rate
FRAMES AND TRUSSES			
9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).		
9.1.1	Second class teak wood	cum	120619.05
9.1.2	Sal wood	cum	95763.05
9.1.3	Kiln seasoned and chemically treated hollock wood	cum	62182.40
9.2	Providing laminated veneer lumber conforming to IS:14616 and TAD -15: 2001 (Part B) in factory made frames of doors, windows, clerestory windows and other frames, wrought framed and fixing in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).	cum	107736.40
9.3	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position with necessary stainless steel screws etc.		
9.3.1	Sal wood	cum	91310.90
9.3.2	Kiln seasoned and chemically treated hollock wood	cum	57531.35
9.4	Extra for additional labour for circular works, such as in frames of fan light		
9.4.1	Second class teak wood	cum	12061.95
9.4.2	Sal wood	cum	9576.40
9.4.3	Kiln seasoned and chemically treated hollock wood	cum	6218.35
9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)		
9.5.1	Second class teak wood		

Code No.	Description	Unit	Rate
9.5.1.1	35 mm thick shutters	sqm	3122.60
9.5.1.2	30 mm thick shutters	sqm	2779.10
9.5.2	Kiln seasoned and chemically treated hollock wood		
9.5.2.1	35 mm thick shutters	sqm	1890.80
9.5.2.2	30 mm thick shutters	sqm	1717.95
9.5.3	Kiln seasoned selected planks of sheesham wood		
9.5.3.1	35 mm thick shutters	sqm	2700.90
9.5.3.2	30 mm thick shutters	sqm	2415.25
9.6	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), fixing with butt hinges of required size with necessary screws, all complete as per directions of Engineer- in-charge and panelling with panels of : (Note:- Butt hinges and necessary screws shall be paid separately)		
9.6.1	12 mm thick plain grade -1, medium density flat pressed three layer particle board FPT - I or graded wood particle board FPT- I, IS : 3087 marked, bonded with BWP type synthetic resin adhesive as per IS : 848 :	sqm	2458.80
9.6.2	12 mm thick pre-laminated particle board (decorative lamination on both sides) grade - 1, medium density flat pressed, three layer particle board FPT- I or graded wood particle board FPT- I, conforming to IS : 3087, bonded with BWP type synthetic resin adhesive as per IS : 848 and pre- laminated conforming to IS : 12823, Grade 1, Type - II marked :	sqm	2592.60
9.6.3	12 mm thick one side Pre-laminated particle board (decorative lamination on one side and other sides balancing lamination) grade - 1, medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT-1 conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823, Grade -1, Type II marked :	sqm	2846.80

Code No.	Description	Unit	Rate
9.7	Providing and fixing panelling or paneling 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 or panelled and glazed shutters 25 mm to 40 mm thick :		
9.7.1	Second class teak wood	sqm	2639.60
9.7.2	Kiln seasoned and chemically treated hollock wood	sqm	1646.95
9.7.3	Ply wood 5 ply, 9 mm thick		
9.7.3.1	Decorative plywood both side decorative veneer (Type - I) conforming to IS 1328 BWR type	sqm	1953.80
9.7.3.2	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type		1986.25
9.7.4	Ply wood 7 ply, 9 mm thick	sqm	
9.7.4.1	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type		2115.95
9.7.5	Particle Board 12 mm thick	sqm	
9.7.5.1	Plain particle board flat pressed, 3 layer or graded wood particle board medium density Grade I, IS : 3087 marked		1042.40
9.7.5.2	Veneered flat pressed three layer or graded wood particle board with commercial veneering on both sides conforming to IS:3097, grade I	sqm	1386.20
9.7.5.3	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side, Grade I, Type II IS: 12823 marked	sqm	1451.05
9.7.5.4	Pre-laminated particle board with decorative lamination on both sides, Grade I, Type II, IS:12823 marked	sqm	1507.80
9.7.6	Coir Veneer Board (conforming to IS 14842)		
9.7.6.1	12 mm thick	sqm	1661.90
9.7.7	Float glass panes		
9.7.7.1	4 mm thick glass pane (weight not less than 10 kg per sqm)	sqm	1241.35
9.7.7.2	5.0 mm thick glass panes (weight not less than 12.5 kg per sqm)	sqm	1565.70

Code No.	Description	Unit	Rate
9.7.8	Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4mm wide aperture with matching wood beading	sqm	1106.75
9.9	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.		
9.9.1	Second class teak wood	sqm	3818.20
9.9.1.1	35 mm thick	sqm	3425.65
9.9.1.2	30 mm thick	sqm	2415.80
9.9.2	Kiln seasoned and chemically treated hollock wood	sqm	2218.20
9.9.2.1	35 mm thick	sqm	3338.60
9.9.2.2	30 mm thick	sqm	3012.20
9.9.3	Kiln seasoned selected planks of sheesham wood	sqm	267.60
9.9.3.1	35 mm thick	sqm	214.05
9.9.3.2	30 mm thick	sqm	117
9.10	Providing and fixing factory made laminated veneer lumber glazed shutter conforming to IS: 14616 and TADS 15:2001 (Part B), using 4 mm thick float glass panes for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, all as per directions of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)		
9.10.1	30 mm thick shutters	sqm	2458.80
9.11	Extra for providing heavy sheet float glass panes instead of ordinary float glass in glazed doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured)		
9.11.1	5.0 mm thick instead of 4 mm thick.	sqm	6.70
9.12	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).		
9.13	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).		

Code No.	Description	Unit	Rate
9.14	Extra for providing ISI marked Stainless Steel butt hinges instead of M.S. pressed butt hinges bright finished of required size with necessary screws. (Shutter area to be measured).	sqm	126.50
9.15	Deduct for not providing hinges in doors, windows or clerestory window shutters with :		
9.15.1	Stainless steel butt hinges with stainless steel screws :		
9.15.1.1	For 2nd class teak wood and other class of wood shutters	sqm	181.60
9.15.2	ISI marked M.S. pressed butt hinges bright finished of required size.		
9.15.2.1	For 2nd class teak wood and other class of wood shutters	sqm	55.15
9.16	Providing and fixing 25 mm thick shutters for cup board etc. :		
9.16.1	Panelled or panelled & glazed shutters :		
9.16.1.1	Second class teak wood including ISI marked anodised aluminium butt hinges with necessary screws	sqm	3258.35
9.16.1.2	Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws :	sqm	3400.70
9.16.2	Glazed shutters :		
9.16.2.1	Second class teak wood including ISI marked anodized aluminium butt hinges with necessary screws	sqm	3110.55
9.16.2.2	Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	3149.05
9.17	Providing and fixing flat pressed 3 layer particle board medium density exterior grade (Grade I) or graded wood particle board IS : 3087 marked, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately):		
9.17.1	12 mm thick	sqm	545.80
9.17.2	18 mm thick	sqm	817.90
9.18	Providing and fixing Pre-laminated flat pressed 3 layer (medium density) particle board or graded wood particle board IS : 3087 marked, with one side decorative and other side balancing lamination Grade I, Type II exterior grade IS : 12823 marked, in shelves with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately).		
9.18.1	18 mm thick	sqm	1086.75

Code No.	Description	Unit	Rate
9.18.2	25 mm thick	sqm	1442.05
9.20	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.		
9.20.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	2832.75
9.20.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	2565.15
9.20.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. Piano hinges IS : 3818 marked with necessary screws	sqm	2273.45
9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:		
9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	1695.50
9.21.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	1628.60
9.21.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	1591.10
9.22	Extra for Providing and fixing flush doors with decorative veneering instead of non decorative ISI marked flush door shutters conforming to IS: 2202 (Part I)		
9.22.1	On one side only	sqm	441.50
9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	sqm	401.40
9.24	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):		
9.24.1	Rectangular or square	sqm	173.95
9.24.2	Circular	sqm	180.60
9.25	Extra if louvers (not exceeding 0.2 sqm) are provided in flush door shutters (overall area of door shutters to be measured).		

Code No.	Description	Unit	Rate
9.25.1	Decorative type door	sqm	354.55
9.26	Extra for cutting rebate in flush door shutters (Total area of the shutter to be measured).	sqm	93.65
9.27	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws :		
9.27.1	35 mm thick shutters		
9.27.1.1	with ISI marked M.S. pressed butt hinges bright finished of required size		
9.27.1.1.1	Second class teak wood	sqm	3669.30
9.27.1.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2427.55
9.27.1.1.3	Kiln seasoned selected class of sheesham wood	sqm	3244.25
9.27.1.2	With ISI marked stainless steel butt hinges of required size		
9.27.1.2.1	Second class teak wood	sqm	3795.75
9.27.1.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2554.05
9.27.1.2.3	Kiln seasoned selected class of sheesham wood	sqm	3370.75
9.27.2	30 mm thick shutters		
9.27.2.1	with ISI marked M.S. pressed butt hinges bright finished of required size		
9.27.2.1.1	Second class teak wood	sqm	3242.05
9.27.2.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2180.90
9.27.2.1.3	Kiln seasoned selected class of sheesham wood	sqm	2878.20
9.27.2.2	With ISI marked stainless steel butt hinges of required size		
9.27.2.2.1	Second class teak wood	sqm	3368.55
9.27.2.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2307.20
9.27.2.2.3	Kiln seasoned selected class of sheesham wood	sqm	3004.70

Code No.	Description			Unit	Rate
9.31	Providing and fixing wire gauge laminated veneer lumber shutters conforming to IS : 14616, and as per TADS 15 :2001 (Part B) using galvanised wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm as per IS :1568, for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, as per directions of Engineer-in-charge: (Note:- Butt hinges and necessary screws shall be paid separately)				
9.31.1	9.31.1 35 mm thick shutters		sqm	2458.80	
9.31.2	9.31.2 30 mm thick shutters		sqm	2204.60	
MISCELLANEOUS-WOOD WORK					
9.40	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete :				
9.40.1	2nd class teak wood				
9.40.1.1	50x12 mm		metre	146.10	
9.40.1.2	50 x 20 mm		metre	193.40	
9.40.2	Kiln seasoned and chemically treated hollock wood				
9.40.2.1	50x12 mm		metre	110.70	
9.40.2.2	50x20 mm		metre	134.35	
9.41	Providing and fixing plain jaffri of 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with :				
9.41.1	Second class teak wood		sqm	2154.20	
9.42	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 plated M.S. pipe 20 mm dia (heavy type) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete.		metre	421.45	

Code No.	Description	Unit	Rate
9.43	Providing and fixing 18 mm thick, 150 mm wide pelmet of coir veneer board ISI marked IS : 14842, including top cover of 6 mm coir veneer board, nickle plated M.S. Pipe 20 mm dia. (heavy type) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. Flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete.	metre	548.15
9.44	Extra for using veneered particle board conforming to IS 3097 Grade I, in item of pelmet 18mm thick 150mm wide.		
9.44.1	Non decorative veneer on both sides	metre	33.20
9.44.2	Particle board with decorative veneering on both sides	metre	107.05
9.45	Providing and fixing teak wood lipping of size 25x3 mm in pelmet.	metre	42.00
9.46	Providing and fixing chromium plated brass curtain rod having wall thickness of 1.25mm with two chromium plated brass brackets fixed with C.P. brass screws and PVC sleeves etc., wherever necessary complete :		
9.46.1	12 mm dia	metre	272.80
9.46.2	20 mm dia	metre	373.15
9.46.3	25 mm dia	metre	480.15
9.47	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets :		
9.47.1	20 mm dia (heavy type)	metre	155.65
9.47.2	25 mm dia (heavy type)	metre	162.35
9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.		
9.48.1	Fixed to steel windows by welding	kg	129.20
9.48.2	Fixed to openings /wooden frames with rawl plugs screws etc.	kg	147.40
9.49	Providing and fixing expanded metal 20x60 mm strands 3.25 mm wide and 1.6mm thick for windows etc. including 62 x19 mm beading of II nd class teak wood and priming coat with approved steel primer all complete.	sqm	1084.35

Code No.	Description	Unit	Rate
9.50	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood and priming coat with approved steel primer all complete.	sqm	1292.15
9.51	Providing and fixing fly proof galvanized M.S. wire gauge to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm all complete.		
9.51.1	With 2nd class teak wood beading 62X19 mm	sqm	994.55
9.51.2	With 12 mm mild steel U beading	sqm	642.45
9.52	Deduct for fixing 75x25 mm hard drawn steel wire fabric of weight not less than 7.75 Kg per sqm in panelled and glazed door and window shutter instead of glass sheet 4 mm thick.	sqm	173.95
9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	each	139.70
9.54	Providing beams including hoisting, fixing in position and applying wood preservative for the unexposed surfaces, etc. complete with :		
9.54.1	Sal wood	cum	88781.45
9.54.2	Hollock wood	cum	54657.35

BRIGHT FINISHED M.S. FITTINGS

9.55	Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete :		
9.55.1	125x65x2.12 mm	each	37.70
9.55.2	100x58x1.90 mm	each	28.75
9.55.3	75x47x1.70 mm	each	22.45
9.55.4	50x37x1.50 mm	each	12.40
9.56	Providing and fixing ISI marked, IS : 1341, M.S. heavy weight butt hinges with necessary screws etc. complete :		
9.56.1	125x90x4.00 mm	each	47.75
9.56.2	100x75x3.50 mm	each	39.45
9.56.3	75x60x3.10 mm	each	27.70
9.56.4	50x40x2.50 mm	each	16.55

Code No.	Description	Unit	Rate
Note: - In coastal areas, M.S. heavy weight butt hinges or stainless steel hinges shall be used.			
COPPER OXIDISED MILD STEEL FITTINGS (COPPER OXIDISED AS PER IS: 1378)			
9.57	Providing and fixing ISI marked oxidised M.S. pressed butt hinges with necessary screws etc. complete.		
9.57.1	125x65x2.12 mm	each	37.40
9.57.2	100x58x1.90 mm	each	29.60
9.57.3	75x47x1.70 mm	each	23.75
9.57.4	50x37x1.50 mm	each	13.05
9.58	Providing and fixing ISI marked oxidised M.S. pressed Parliamentary hinges with necessary screws etc. complete :		
9.58.1	150x125x27x2.80 mm	each	65.10
9.58.2	125x125x27x2.80 mm	each	61.75
9.58.3	100x125x27x2.80 mm	each	51.30
9.58.4	75x100x20x2.24 mm	each	43.90
9.59	Providing and fixing ISI marked oxidised M.S. single acting spring hinges with necessary screws etc. complete :		
9.59.1	150 mm	each	222.15
9.59.2	125 mm	each	195.35
9.59.3	100 mm	each	167.10
9.60	Providing and fixing oxidised M.S. double acting spring hinges with necessary screws etc. complete.		
9.60.1	150 mm	each	247.55
9.60.2	125 mm	each	218.10
9.60.3	100 mm	each	193.85
9.61	Providing M.S. Piano hinges ISI marked IS : 3818 finished with nickel plating and fixing with necessary screws etc., complete.		
9.61.1	Overall width 35 mm	metre	185.35
9.61.2	Overall width 50 mm	metre	180.00
9.61.3	Overall width 65 mm	metre	196.05
9.62	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :		
9.62.1	300x16 mm	each	173.10
9.62.2	250x16 mm	each	159.80

Code No.	Description	Unit	Rate
9.63	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete : 9.63.1 250x10 mm 9.63.2 200x10 mm 9.63.3 150x10 mm 9.63.4 100x10 mm	each	70.05 56.50 48.45 35.45
9.64	Providing and fixing ISI marked 85x42 mm oxidised M.S. pull bolt lock conforming to IS : 7534 with necessary screws bolts, nut and washers etc. complete.	each	94.50
9.65	Providing and fixing ISI marked oxidised M.S. door latches conforming to IS:5930 with screws etc. complete : 9.65.1 300x20x6 mm 9.65.2 250x20x6 mm	each	76.90 63.50
9.66	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete : 9.66.1 125 mm 9.66.2 100 mm 9.66.3 75 mm	each	32.40 25.50 21.50
9.67	Providing and fixing oxidised M.S. hasp and staple (safety type) conforming to IS : 363 with necessary screws etc. complete : 9.67.1 150 mm 9.67.2 115 mm 9.67.3 90 mm	each	25.45 22.30 18.45
9.68	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete. 9.68.1 300 mm weighing not less than 200 gms 9.68.2 250 mm weighing not less than 150 gms 9.68.3 200 mm weighing not less than 120 gms	each	54.70 47.30 40.65
9.69	Providing and fixing oxidised M.S. Safety chain with necessary fixtures for doors, (weighting not less than 450 gms)	each	84.40
STAINLESS STEEL FITTINGS			
9.70	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete : 9.70.1 125x64x1.90 mm	each	75.95

Code No.	Description		Unit	Rate
9.70.2	100X58X1.90 mm		each	66.05
9.70.3	75x47x1.80 mm		each	48.00
9.70.4	50x37x1.50 mm		each	29.00
9.71	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :			
9.71.1	125x64x2.50 mm		each	87.35
9.71.2	100x60x2.50 mm		each	68.75
9.71.3	75x50x2.50 mm		each	54.05
BRASS FITTINGS				
9.72	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete :			
9.72.1	125x85x5.5 mm (heavy type)		each	218.75
9.72.2	125x70x4 mm (ordinary type)		each	147.30
9.72.3	100x85x5.5 mm (heavy type)		each	165.55
9.72.4	100x70x4 mm (ordinary type)		each	115.75
9.72.5	75x65x4 mm (heavy type)		each	137.30
9.72.6	75x40x2.5 mm (ordinary type)		each	76.00
9.72.7	50x40x2.5 mm (ordinary type)		each	31.40
9.73	Providing and fixing bright finished brass parliamentary hinges with necessary screws etc. complete :			
9.73.1	150x125x27x5 mm		each	383.05
9.73.2	125x125x27x5 mm		each	341.60
9.73.3	100x125x27x5 mm		each	313.50
9.73.4	75x100x20x3.2 mm		each	277.10
9.74	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :			
9.74.1	250x10 mm		each	370.15
9.74.2	200x10 mm		each	296.35
9.74.3	150x10 mm		each	228.15
9.74.4	100x10 mm		each	156.15
9.75	Providing and fixing bright finished brass door latch with necessary screws etc. complete :			
9.75.1	300x16x5 mm		each	268.20
9.75.2	250x16x5 mm		each	254.80

Code No.	Description	Unit	Rate
9.76	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	653.20
9.77	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles of approved quality with necessary screws etc. complete.	each	532.75
9.78	Providing and fixing bright finished brass night latch of approved quality including necessary screws etc. complete.	each	934.15
9.79	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers of approved quality including necessary screws etc. complete.		
9.79.1	40 mm	each	191.60
9.79.2	50 mm	each	231.75
9.79.3	65 mm	each	238.40
9.79.4	75 mm	each	258.50
9.80	Providing and fixing 50 mm bright finished brass cupboard or wardrobe knob of approved quality with necessary screws.	each	57.80
9.81	Providing and fixing bright finished brass handles with screws etc. complete:		
9.81.1	125 mm	each	202.55
9.81.2	100 mm	each	187.35
9.81.3	75 mm	each	147.20
9.82	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	each	105.65
9.83	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	each	962.75
9.84	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	each	810.85
9.85	Providing and fixing bright finished brass casement window fastener with necessary screws etc. complete.	each	72.15

Code No.	Description	Unit	Rate
9.86	Providing and fixing bright finished brass casement stays (straight peg type) with necessary screws etc. complete : 9.86.1 300 mm weighing not less than 330 gms 9.86.2 250 mm weighing not less than 280 gms 9.86.3 200 mm weighing not less than 240 gms	each	182.70 145.75 139.05
9.87	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete : 9.87.1 150 mm 9.87.2 115 mm 9.87.3 90 mm	each	115.30 104.10 91.40
CHROMIUM PLATED BRASS FITTINGS			
9.88	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	746.85
9.89	Providing and fixing chromium plated brass night latch of approved quality including necessary screws etc. complete.	each	786.95
9.90	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete. 9.90.1 Size 40 mm 9.90.2 Size 50 mm 9.90.3 Size 65 mm 9.90.4 Size 75 mm	each	198.30 211.65 245.10 278.55
9.91	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	each	116.70
9.92	Providing and fixing chromium plated brass handles with necessary screws etc. complete: 9.92.1 9.92.1 125 mm 9.92.2 9.92.2 100 mm 9.92.3 9.92.3 75 mm	each	223.95 196.75 176.65
9.93	Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete.	each	136.65
9.94	Providing and fixing chromium plated brass casement stays (straight peg type) with necessary screws etc. complete : 9.94.1 300 mm weighing not less than 330 gms	each	203.55

Code No.	Description		Unit	Rate
9.94.2	250 mm weighing not less than 280 gms	each	176.80	
9.94.3	200 mm weighing not less than 240 gms	each	150.05	
ANODISED ALUMINIUM FITTINGS (ALL FITTINGS SHALL BE ISI MARKED)				
9.95	Providing and fixing ISI marked aluminium butt hinges anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:			
9.95.1	125x75x4 mm	each	128.80	
9.95.2	125x63x4 mm	each	106.45	
9.95.3	100x75x4 mm	each	97.15	
9.95.4	100x63x4 mm	each	87.90	
9.95.5	100x63x3.2 mm	each	80.65	
9.95.6	75x63x4 mm	each	69.35	
9.95.7	75x63x3.2 mm	each	62.75	
9.95.8	75x45x3.2 mm	each	58.75	
<p>Note :- Aluminum hinges shall not be used in wooden shutters, stainless steel hinges shall be preferred.</p>				
9.96	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :			
9.96.1	300x16 mm	each	239.60	
9.96.2	250x16 mm	each	214.20	
9.97	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :			
9.97.1	300x10 mm	each	112.45	
9.97.2	250x10 mm	each	99.20	
9.97.3	200x10 mm	each	85.60	
9.97.4	150x10 mm	each	72.20	
9.97.5	100x10 mm	each	55.35	
9.98	Providing and fixing aluminium pull bolt lock, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws bolts, nut and washers etc. complete.			

Code No.	Description	Unit	Rate
9.99	Providing and fixing 50 cm long aluminium kicking plate of size 100x3.15 mm, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete.	each	207.70
9.100	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :		
9.100.1	125 mm	each	57.55
9.100.2	100 mm	each	50.75
9.100.3	75 mm	each	43.80
9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.		
9.101.1	Single rubber stopper	each	32.90
9.101.2	Twin rubber stopper	each	61.00
9.102	Providing and fixing aluminium casement stays, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.	each	59.05
9.103	Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	each	689.05
9.104	Providing and fixing aluminium tee channels (heavy duty) with rollers & stop end in pelmets as curtain rod.	metre	139.35

GYPSUM BOARD PARTITIONS

Code No.	Description	Unit	Rate
9.105	<p>Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/ sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, Galvanised M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each with zinc coating of 120 gms/sqm(both side inclusive)) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.</p>		
9.105.1	<p>75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) plaster board conforming to IS: 2095: (part 3) : 1996 (Board with BIS certification marks)</p>	sqm	1451.60
9.105.2	<p>75mm overall thickness partition with 12.5 mm thick double skin tapered edged plain Gypsum plaster board conforming : to IS 2095: (part 1) : 1996 (Board with BIS certification marks)</p>	sqm	1224.15

Code No.	Description	Unit	Rate
9.105.3	66mm overall thickness Partition with 8mm thick double skin Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process with Compressive Strength 225 kg/sq.cm, Bending Strength 100 kg./ sq.cm	sqm	1518.45
9.105.4	66mm overall thickness partition using 8mm thick double skin multipurpose cement board reinforced with cellulose fibre manufactured through autoclaving process (High pressure steam cured) as per IS : 14862 with suitable fibre cement screws	sqm	1398.05
9.105.5	66 mm overall thickness partition using 8 mm thick double skin multipurpose cement bonded wood particle board manufactured as per IS: 14276 with suitable cement bonded board screws	sqm	1384.70
9.106	Providing and fixing PTMT handles with necessary screws etc. complete.		
9.106.1	125x34x24 mm weighing not less than 23 gms	each	37.75
9.106.2	150x34x24 mm weighing not less than 26 gms	each	37.75
9.107	Providing and fixing PTMT Butt hinges with necessary screws etc. complete.		
9.107.1	75x60x10 mm fitted with 5.5 mm dia M.S. Bright Bar Rod weighing not less than 34 gms	each	59.15
9.107.2	100x75x10 mm fitted with 5.5 mm dia MS Bright Bar Rod weighing not less than 53	each	75.55
9.108	Providing and fixing PTMT Tower Bolts with 12 mm one piece rod inside and necessary screws etc., complete.		
9.108.1	152x42x18 mm weighing not less than 60 gms	each	72.55
9.108.2	202x42x18 mm weighing not less than 78 gms	each	100.20
9.109	Providing and fixing PTMT door catcher of length 72 mm and dia. of 42 mm with suitable washers weighing not less than 33 gms	each	35.70

Code No.	Description	Unit	Rate
9.110	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 hollock wood in scantling of section 50X25 mm, fixed with nails and G.I wire on existing support complete as per direction of Engineer-in-charge.	sqm	489.85
9.111	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.	metre	246.25
9.111.1	50x50 mm (base and height)	metre	246.25
9.112	Providing and fixing 2nd class teak wood lipping/ moulded beading or taj beading of size 18X5 mm fixed with wooden adhesive of approved quality and screws/nails on the edges of the Pre-laminated particle board as per direction of Engineer-in-charge.	metre	60.70
9.113	Providing and fixing bright finished 100 mm mortice lock with 6 levers without pair of handles of approved quality for aluminium door, with necessary screws etc complete as per direction of Engineer- in-charge.	each	591.50
9.114	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete.	each	39.05
9.114.1	Triple strip vertical type	each	39.05
9.114.2	Double strip (horizontal type)	each	31.05
9.115	Providing and fixing powder coated telescopic drawer channels 300 mm long with necessary screws etc. complete as per directions of Engineer- in-charge.	one set	339.75
9.116	Providing and fixing sliding arrangement in racks/ cupboards/cabinets shutter by with stainless steel rollers to run inside C or E aluminium channel section (The payment of C or E channel shall be made separately)	each	14.80

Code No.	Description	Unit	Rate
9.117	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer- in-charge		
9.117.1	Extruded section profile size 48x40 mm	metre	198.70
9.117.2	Extruded section profile size 42x50 mm	metre	244.50
9.118	Providing and fixing to existing door frames.		
9.118.1	24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness. fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised 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	1632.15

Code No.	Description	Unit	Rate
9.118.2	<p>30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a upVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness.</p> <p>The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.</p>	sqm	1850.10

Code No.	Description	Unit	Rate
9.118.3	25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm (± 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm (± 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	sqm	2453.75
9.119	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with awall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm 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 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in-Charge.	metre	368.70
9.120	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall		

Code No.	Description	Unit	Rate
	be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.		
9.120.1	30 mm thick plain PVC door shutters	sqm	2294.85
9.120.2	30 mm thick pre laminated PVC door shutters	sqm	2294.85
9.121	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness. The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat. Door frame laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame.	metre	656.90
9.122	Providing and fixing to existing door frames.		
9.122.1	30 mm thick Glass Fibre Reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire - retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5 mm thick FRP laminate for panels conforming to IS: 14856, including fixing to frames.	sqm	3336.50

Code No.	Description	Unit	Rate
9.122.2	30 mm thick Fiberglass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge.	sqm	3803.45
9.123	Providing and fixing factory made door frame (single rebate) made out of single piece extruded solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 62 mm width & 32 mm thickness, frame will be mitred & Jointed with self driven self tapping screws of size 38 mm x 4 mm & PVC solvent cement, including fixing the frame to wall with suitable dia & length anchor fastener as per manufacturer's specification and direction of Engineer-in-charge.	metre	453.55
9.124	Providing and fixing factory made 30 mm thick door shutter made of solid PVC foam profile. The styles & rails shall be of size 75 mm x 30 mm having wall thickness 5 mm. The styles, top & bottom rails shall have one side wall thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power. The styles and rails shall be reinforced with M.S. tubes of size 33 mm x 17 mm x 1 mm, painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and the rails with a cavity, to receive single piece extruded 5mm PVC sheet as panel. The styles and rails will be mitred cut and joint with the help of PVC solvent cement & self driven self tapping screws. Single piece extruded solid PVC lock rail of size 100 mm x 30 mm with wall thickness 5 mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100mm x 8 mm complete as per manufacturer's specifications and direction of Engineer-in-charge.	metre	453.55
9.124.1	9.124.1 Non decorative finish	sqm	2900.30

Code No.	Description		Unit	Rate
	9.124.2	9.124.2 Decorative finish (both side wood grained finish)	sqm	3034.10
9.125	Providing and fixing PVC rigid foam sheet 1 mm thick on existing door shutters (bathroom and W.C. doors) using synthetic rubber based adhesive.		sqm	900.40
9.126	Providing and fixing 12 mm thick 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 or panelled and glazed shutters 25 mm to 40 mm thick.			
	9.126.1	Marine plywood conforming to IS: 710	sqm	1702.40
	9.126.2	Fire retardant plywood conforming to IS: 5509	sqm	1953.80
9.127	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.			
	9.127.1	1.5 mm thick	sqm	776.00
	9.127.2	1.0 mm thick	sqm	650.90
9.128	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings . The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight. Note - Only plan area of chajjas shall be measured for making payment]		sqm	4851.25

Code No.	Description	Unit	Rate
9.129	Providing and fixing cup board shutters 25 mm thick, with Pre-laminated flat pressed three layer particle board or graded wood particle board IS: 12823 marked, exterior grade (Grade I Type II), having one side decorative lamination and other side balancing lamination, including IIInd class teak wood lipping of 25 mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of the Engineer-in-Charge	sqm	1765.95
9.130	Providing and fixing cup board shutters with 25 mm thick veneered particle board IS : 3097 marked, exterior grade (Grade I), of approved make, including IIInd class teak wood lipping of 25 mm wide x 12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of Engineer-in-Charge.	sqm	1485.00
	9.130.1 With decorative veneering on one side and commercial veneering on other side	sqm	1384.65
	9.130.2 With non decorative veneering on both sides	sqm	
9.131	Providing and fixing factory made shutters of Pre-laminated particle board flat pressed three layer or graded wood particle board with one side decorative finish and other side balancing lamination conforming to IS: 12823 Grade I Type II, of approved design, and edges sealed with water resistant paint and lipped with aluminium 'U' type edge beading all- round the shutter, including fixing with angle cleat, grip strip, cadmium plated steel screws, including fixing of aluminium hinges 100x63x4 mm etc. complete as per architectural drawing and direction of Engineer-in- Charge (Cost of 'U' beading and hinges will be paid for separately).	sqm	1433.75
9.131.1	25 mm thick	kg	517.80
9.132	Providing and fixing aluminum U beading of required size to Pre-laminated/ flush door shutter, including fixing etc. complete as per direction of Engineer-in-charge.		

Code No.	Description	Unit	Rate
9.133	<p>Providing and fixing, in position concealed G.I. section for wall paneling using board of required thickness fixed on the 'W' profile (0.55 mm thick) having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm, placed @ 610 mm C/C in perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm. Perimeter channel is fixed on the floor and the ceiling with the nylon sleeves @ 610 mm C/C with fully threaded self-tapping dry wall screws. Board is fixed to the 'W' profile with 25 mm countersunk ribbed head screws @ 200 mm C/C., all complete as per the drawing & directions of engineer-in-charge, the joints of the boards are finished with specially formulated jointing compound and 48mm wide jointing tape to provide seamless finish.</p> <p>9.133.1 Tapered edge calcium silicate board made with calcareous & siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with compressive strength 225 kg/ sq.cm, Bending strength 100 kg/sq.cm.</p> <p>9.133.1.1 10mm thick</p> <p>9.133.2 Multipurpose cement board reinforced with suitable fibre cement screw.</p> <p>9.133.2.1 8 mm thick cement fibre board as per IS : 14862</p> <p>9.133.2.2 8 mm thick Cement bonded wood particle board as per IS:14276</p> <p>9.133.3 Plain Gypsum plaster board conforming to IS: 2095 (Part -1) : 2011 (Board with BIS certification marks)</p> <p>9.133.3.1 12.5 mm thick</p>	sqm	1170.30
9.134	<p>Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws :</p> <p>9.134.1 35 mm thick shutters</p> <p>9.134.1.1 with ISI marked M.S. pressed butt hinges bright finished of required size</p> <p>9.134.1.1.1 Second class teak wood</p> <p>9.134.1.1.2 Kiln seasoned and chemically treated hollock wood</p>	sqm	3800.30
			2558.55

Code No.	Description	Unit	Rate
9.134.1.1.3	Kiln seasoned selected class of sheesham wood	sqm	3375.25
9.134.1.2	With ISI marked stainless steel butt hinges of required size		
9.134.1.2.1	Second class teak wood	sqm	3926.75
9.134.1.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2685.05
9.134.1.2.3	Kiln seasoned selected class of sheesham wood	sqm	3501.75
9.134.2	30 mm thick shutters		
9.134.2.1	with ISI marked M.S. pressed butt hinges bright finished of required size		
9.134.2.1.1	Second class teak wood	sqm	3373.05
9.134.2.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2311.75
9.134.2.1.3	Kiln seasoned selected class of sheesham wood	sqm	3009.20
9.134.2.2	With ISI marked stainless steel butt hinges of required size		
9.134.2.2.1	Second class teak wood	sqm	3499.55
9.134.2.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2438.35
9.134.2.2.3	Kiln seasoned selected class of sheesham wood	sqm	3135.70
9.135	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.		
9.135.1	With 2nd class teak wood beading 62X19 mm	sqm	1214.80
9.135.2	With 12 mm mild steel U beading	sqm	862.65
9.136	Providing and fixing fire resistant door frame of section 143 x 57 mm having built in rebate made out of 16 SWG G.I. sheet (zinc coating not less than 120 gm/sqm) duly filled with vermiculite based concrete mix, suitable for mounting 60 minutes fire rated door shutters. The frame is fitted with intumuscent fire seal strip of size 10x4 mm (minimum) alround the frame and fixing with dash fastener of approved size and make, including applying a coat of approved brand fire resistant primer etc. complete as per direction of Engineer-in-charge (Dash fastener to be paid for separately).	metre	1444.30

Code No.	Description	Unit	Rate
9.137	Providing and fixing 50 mm thick glazed fire resistant door shutters of 60 minutes fire rating conforming to IS:3614 (Part-II), tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, lock rail, top rail 100 mm wide, bottom rail 200 mm wide, made out of 16 SWG G.I.sheet (zinc coating not less than 120 gm/m ²) duly filled FR insulation material and fixing with necessary stainless steel ball bearing hinges of approved make, including applying a coat of approved fire resistant primer etc. all complete as per direction of Engineer-in-charge (panneling to be paid for separately).	sqm	6166.00
9.138	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m ²) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per NBC 2016, IS 16231 (Part 3):2016 and as per direction of Engineer-in-charge with glass of required thickness having 60 minutes of fire resistance both integrity & radiation control (EW60) and minimum 20 minutes of insulation (EI20). The manufacturer have to give test report/certification of fire glass and the glass should have the stamp showing the value of E, EW & EI. The glass shall be tested in approved NABL accredited lab or by any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes shall be eligible. The maximum glazing size shall not be more than 1100x2200 mm (w x h) or 2.42 sqm.	sqm	36050.45
9.139	Providing and fixing panic bar / latch (Double point) fitted with a single body, Trim Latch & Lock on back side of the Panic Latch of reputed brand and manufacture to be approved by the Engineer- in- charge, all complete.	each	7075.30
9.140	Providing and fixing plain lining with necessary screws/nuts & bolts/ nails, including a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-in- charge (Frame work shall be paid for separately).	sqm	920.05
9.140.1	12mm thick commercial ply conforming to IS : 1328 BWR type	sqm	

Code No.	Description	Unit	Rate
9.141	Providing and fixing PVC Door Frame of size 50x47 mm with a wall thickness of 5 mm (± 0.2 mm), made out of single piece extruded PVC profile, with mitred cut joints and joint with 2 nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15 mm & self driven self taping screws, the vertical door profiles to be reinforced with 40x20 mm M.S. rectangular tube of 0.8 mm , including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5 mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8 x100 mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in- charge.	metre	433.85
9.142	35 mm thick factory made Solid panel PVC Door shutter, made out of single piece extruded soild PVC profiles, 5 mm (± 0.2 mm) thick, having styles & rails (except lock rail) of size 95 mmx 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5 mm thick solid PVC Lock rail of size 115 mm x 35 mm, out of which 75 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge.		
9.142.1	Non decorative finish (matt finish)	sqm	3112.25
9.142.2	Decorative finish (wood grained finish)	sqm	3714.30

Code No.	Description	Unit	Rate
9.143	Providing and Fixing factory made uPVC door frame, made of uPVC extruded sections, of size 65 mm x 55 mm with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be mitred cut and jointed with plastic brackets and stainless steel screws, reinforcing hinge side vertical of the frames with PVC profile of Size 28 mm x 30 mm having wall thickness 2 mm (± 0.2 mm), including providing & fixing 3 nos of 125 mm long stainless steel hinges to the frame, fixing the frame with jamb with required number & size of anchor dash fasteners, all complete as per manufacturer's specification and direction of Engineer-in-charge.	metre	505.40
9.144	Providing and fixing 37 mm thick factory made PVC door shutter, styles and rails made of PVC hollow section of size 100 mm x 37 mm with wall thickness 2 mm (± 0.2 mm), with inbuilt bead on one side, styles and rails mitered cut and joint at the corners by means of 2 nos of plastic brackets of size 75 mm x 220 mm at each corner and stainless steel screws, reinforcing the hinge side of style by inserting PVC profile of size 28 mm x 30 mm, with wall thickness 2 mm (± 0.2 mm). Lockrail of size 100 mm x 37 mm, wall thickness 2 mm (± 0.2 mm) will be fixed to the vertical styles. Providing with PVC snapfit beads and panel of size 100 mm x 20 mm, and inserting 2 nos tie bar of 6 mm dia and fastening with nuts and washers complete, all as per manufacturer's specification and direction of Engineer-in-charge.	sqm	3390.30
9.145	Providing and Fixing factory made PVC door frame made of PVC extruded sections of size 75 mm x 53 mm, having wall thickness 2.0 mm (± 0.2 mm). Both verticalsides of the frame reinforced with PVC profile of cross section size 28 mm x 30 mm x 2 mm thickness (± 0.2 mm) and 75 mm x 200 mm long, including reinforcing both ends of the top frame with PVC profile. PVC Door Frame and PVC reinforcement profile to be mitred cut, jointed and fusion welded together, including providing and fixing 3 nos of 125 mm long stainless steel hinges to frame, fixing the frame with jamb with required nos & sizes of anchor dash fastener, all complete as per manufacturer's specification and direction of engineer- in-charge.	metre	565.60

Code No.	Description	Unit	Rate
9.146	<p>Providing and fixing 37 mm thick factory made PVC Door shutter, styles and rails made of PVC hollow extruded printed and laminated section having overall dimension 115 mm x 37 mm with wall thickness 2 mm (\pm 0.2 mm) with inbuilt beading on one side, the styles and rails mitred cut and joint at corners by inserting 2 nos PVC profile reinforcement of size 75 mm x 200 mm long with cross section size of 28 mm x 30 mm having wall thickness 2 mm (\pm 0.2 mm). Styles, rails and reinforcements to be fusion welded together. Only hinge side vertical style to be reinforced with PVC profile reinforcement in full length. Printed and laminated PVC lock rail of size 110 mm x 37 mm having wall thickness 2 mm (\pm 0.2 mm) to be welded horizontally with the vertical styles after inserting PVC profile reinforcement as in styles and rails, providing with PVC snap fit beading, panels of 100 x 20 mm printed & laminated and inserting 2 nos 6 mm dia bright steel rod horizontally with both side threaded and tightened with check nuts and washers complete, all as per manufacturer's specification and direction of engineer-in-charge.</p>	sqm	3657.90
9.147A	<p>Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately)</p>		

Code No.	Description	Unit	Rate
	<p>Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.</p>		
9.147A.1	Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.)	sqm	9483.50
9.147A.2	Casement window double panels with S.S. friction hinges (300 x 19 x 1.9 mm) made of (small series) frame 47 x 50 mm, sash 47 x 68 mm & mullion 47 x 68 mm all having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window above 0.75 sqm upto 1.50 sqm).	sqm	8717.70
9.147A.3	Casement window double panels with top fixed with S.S. friction hinges (350 x 19 x 1.9 mm) made of (small series) frame 47 x 50 mm, sash 47 x 68 mm & mullion 47 x 68 mm all having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 2.50 sqm).	sqm	6982.00
9.147A.4	Casement window single panel with S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 60 mm & sash 67 x 80 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 0.75 sqm.)	sqm	9331.00
9.147A.5	Casement window double panels with S.S. friction hinges (350 x 19 x 1.9 mm) made of (big series) frame 67 x 60 mm & sash / mullion 67 x 80 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/ double glazing bead of appropriate dimension. (Area of window above 1.50 sqm).	sqm	9666.20

Code No.	Description	Unit	Rate
9.147A.6	Casement cum fixed panel window having both end single casement panel, middle fixed panels and at top completely fixed ventilator with S.S friction hinges (350 x 19 x 1.9) made of (big series) frame 67 x 60 mm , sash 67 x 80 mm & mullion 67 x 80 mm all having wall thickness of 2.3 ± 0.2 mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 3.00 sqm upto 5.00 sqm).	sqm	7242.25
9.147B	Providing and fixing factory made uPVC white colour fixed glazed windows/ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.		
9.147B.1	Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	sqm	6478.75

Code No.	Description	Unit	Rate
9.147C	<p>Providing and fixing factory made uPVC white colour casement/ Casement cum fixed glazed door comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately).</p> <p>Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.</p>		
9.147C.1	Casement door with 3D hinges made of (big series) frame 67 x 64 mm & sash 67 x 110 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm).	sqm	9131.45
9.147C.2	Casement door with top hung ventilator with 3D and S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 64 mm, sash 67 x 110 mm & mullion 67 x 80 mm all having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension.(Area of door upto 2.50 sqm)	sqm	9328.30

Code No.	Description	Unit	Rate
9.147D	<p>Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately)</p>		
	<p>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.</p>		
9.147D.1	<p>Two track two panels sliding window made of (small series) frame 52 x 44 mm &sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm)</p>	<p>sqm</p>	6709.60
9.147D.2	<p>Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).</p>	<p>sqm</p>	8954.20

Code No.	Description	Unit	Rate
9.147D.3	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension . (Area of window above 1.75 sqm upto 2.50 sqm).	sqm	6912.15
9.147D.4	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm).	sqm	8616.00
9.147D.5	Three track three panels sliding window made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)	sqm	8177.05
9.147E	Providing and fixing factory made uPVC white colour sliding glazed window above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced		

Code No.	Description	Unit	Rate
	<p>with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately).</p>		
	<p>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.</p>		
9.147E.1	<p>Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 2.50 sqm upto 4.00 sqm.)</p>	<p>sqm</p>	<p>6861.60</p>
9.147E.2	<p>Two track four panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 4.00 sqm upto 8.00 sqm).</p>	<p>sqm</p>	<p>5941.95</p>

Code No.	Description	Unit	Rate
9.147F	<p>Providing and fixing factory made uPVC white colour sliding glazed door comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension uPVC extruded glazing beads, uPVC extruded interlock and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle with key on one side of extreme panels along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) crescent lock (if required), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately).</p>		
9.147F.1	<p>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.</p> <p>Two track two panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)</p>	sqm	6005.00
9.147F.2	<p>Two track four panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 8.00 sqm upto 10.00 sqm).</p>	sqm	5332.85

Code No.	Description	Unit	Rate
9.147F.3	Three track three panels sliding door made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/ double glazing bead of appropriate dimension. (Area of door above 5.00 sqm)	sqm	6064.80
9.147F.4	Three track three panels sliding door with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	sqm	7774.55
9.148	Providing and fixing stainless steel (SS-304 grade) friction hinges to the side/top hung uPVC windows, of approved quality, with necessary stainless steel screws etc. as per direction of Engineer-in-charge.	each	289.75
	9.148.1 200 x 19 x 1.9 mm	each	323.20
	9.148.2 250 x 19 x 1.9 mm	each	343.25
	9.148.3 300 x 19 x 1.9 mm	each	477.05
	9.148.4 350 x 19 x 1.9 mm	each	503.80
	9.148.5 400 x 19 x 1.9 mm	each	
9.149	Providing and fixing casement handle made of zinc alloyed (white powder coated) for uPVC casement window with necessary screws etc. complete.	each	182.20
9.150	Providing and fixing zinc alloyed (white powder coated) touch lock for uPVC sliding window with necessary screws etc. complete.	each	148.75
9.151	Providing and fixing steel roller for uPVC sliding window with necessary screws etc. complete.	each	83.15
9.152	Providing and fixing steel roller for uPVC sliding door with necessary screws etc. complete.	each	135.35
9.153	Providing and fixing steel (white powder coated) crescent lock for uPVC sliding window/ door with necessary screws etc. complete.	each	162.10
9.154	Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with spacing @ 60 cm centre to centre both ways (vertically & horizontally) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits, switch boards etc., including providing with two coats of approved steel primer etc. complete, all as per direction of Engineer-in-charge.	kg	109.65

Code No.	Description	Unit	Rate
9.155	Providing and fixing panelling or paneling 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 rebated to be measured). Panelling for panelled and glazed shutters 25mm to 40mm thick: Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	sqm	1321.30
9.156	Providing and fixing Pre -laminated medium density fibre board exterior grade (Grade-I) IS:14587:1998 marked, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately).	sqm	787.40
	9.156.1 Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	sqm	982.25
	9.156.2 Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	sqm	1101.15
9.157	Providing and fixing Pre-laminated medium density fibre board IS: 14587:1998 marked, with one side decorative lamination other side balancing lamination Grade-I(exterior grade) in shelves with screws and fittings wherever required, edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand (fittings to be paid separately).	sqm	1519.65
	9.157.1 Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	sqm	953.15
	9.157.2 Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 25 mm thick confirming to IS:14587	sqm	1151.85
9.158	Providing and fixing in wall lining medium density fibre board IS: 14587:1998 marked, Pre-laminated one side decorative lamination and other side balancing lamination, with necessary fixing arrangement and screws etc. complete.	sqm	1586.00
	9.158.1 12 mm thick.	sqm	
	9.158.2 18 mm thick.	sqm	
	9.158.3 25 mm thick.	sqm	

Code No.	Description	Unit	Rate
9.159	Providing and fixing 25mm thick pre-laminated medium density fibre board exterior grade (Grade-I) IS:14587:1998 marked with one side decorative and other side balancing lamination for cupboard shutters edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand including ISI marked nickel plated bright finishing M.S. piano hinges conforming to IS:3818 marked with necessary screw etc all complete.	sqm	1625.55
9.160	Providing and fixing skirting with Pre-laminated medium density fibre board exterior grade (Grade-I) conforming to IS: 14587:1998 marked, with (one side decorative and other side balancing lamination and edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. all complete.	sqm	1745.35
	9.160.1 18 mm thick.	sqm	2179.55
	9.160.2 25 mm thick.	sqm	
9.161	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet (Zinc coating not less than 120gm/ m ²) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m ³ . The frame will have a provision of G.I. Anchor fastners 14 nos (5 each on vertical style & 4 on horizontal style of size M10 x 80) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter . The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in-charge . (Cost of SS ball bearing hinges is excluded).	metre	1512.95

Code No.	Description	Unit	Rate
9.162	<p>Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m²) duly filled mineral wool insulation having density min 96 kg/m³ and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in-charge (panelling to be paid for separately).</p>	sqm	8379.30
9.163	<p>Providing and fixing non load bearing fixed frame for fire resistant glazed Partition for 120 minutes Fire Rating, made out to a profile of dimension 60mm x 70 mm of 1.6 mm thick galvanised steel sheet as per test evidence suitable for fixing fire rated glass for 120 minutes of both integrity & radiation control (EW120) & minimum 20 minutes of insulation (EI20).The profile has to be fixed to the supporting construction by means of anchor fasteners of size M10 x 80, every 150 mm from the edges and every 500 mm (approx) c/c. Linear measurement of frame shall be measured for payment. The frame shall be filled with mineral wool insulation of density min 96kg/ m³ and finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per NBC 2016, IS 16231 (Part 3):2016 and directions of Engineer - in- charge.</p>	metre	1512.95

Code No.	Description	Unit	Rate
9.164	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m ²) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/ powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per NBC 2016, IS 16231 (Part 3):2016 and as per direction of Engineer-in- charge with glass of required thickness having 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 20 minutes of insulation (EI20). The manufacturer have to give test report/certification of fire glass and the glass should have the stamp showing the value of E, EW & EI. The glass shall be tested in approved NABL accredited lab or by any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes shall be eligible. The maximum glazing size shall not be more than 1100x2200 mm (w x h) or 2.42 sqm.	sqm	39395.30
9.165	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete.		
	9.165.1 125 mm	each	96.65
	9.165.2 100mm	each	71.85
	9.165.3 75 mm	each	45.10

SUB HEAD : 10.0

STEEL WORK

Code No.	Description	Unit	Rate
10.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	77.55
10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	86.65
10.3	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	sqm	6254.10
10.4	Providing and fixing 1 mm thick M.S. sheet sliding-shutters, with frame and diagonal braces of 40x40x6 mm angle iron, 3 mm M.S. gusset plates at the junctions and corners, 25 mm dia pulley, 40x40x6 mm angle and T-iron guide at the top and bottom respectively, including applying a priming coat of approved steel primer	sqm	4122.35
10.5	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.	sqm	3511.10
10.5.1	Using M.S. angels 40x40x6 mm for diagonal braces	sqm	3363.25
10.5.2	Using flats 30x6mm for diagonal braces and central cross piece	sqm	
10.6	Supplying and fixing rolling shutters of approved make, made of required size 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 the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.		

Code No.	Description	Unit	Rate
10.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	sqm	2704.90
10.6.2	80x1.20 mm M.S. laths with 1.20 mm thick top cover	sqm	2564.45
10.6.3	80x0.90 mm M.S. laths with 0.90 mm thick top cover	sqm	2415.05
10.7	Providing and fixing ball bearing for rolling shutters.	each	419.85
10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters.		
10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	sqm	1106.55
10.8.2	Exceeding 16.80 sqm in area	sqm	1106.55
10.9	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	668.95
10.10	Fixing standard steel glazed doors, windows and ventilators in walls, including fixing of float glass panes with glazing clips and special metal- sash putty of approved make, or metal beading with screws, (only steel windows, glass panes cut to size and glazing clips or metal beading with screws, shall be supplied by department free of cost.		
10.10.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	43.55
10.10.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	24.10
10.11	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D,F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).		
10.11.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	136.70

Code No.	Description	Unit	Rate
10.11.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	95.10
10.12	Extra for providing and fixing steel beading of size 10 x 10 x 1.6 mm (box type), approved shape and section with screws instead of glazing clips and metal sash putty, in steel doors, windows, ventilators and composite units.	metre	45.40
10.13	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.		
10.13.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	96.75
10.13.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	92.70
10.14	Providing and fixing pressed steel door frames conforming to IS: 4351, manufactured from commercial mild steel sheet of 1.60 mm thickness, including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm 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 as directed by Engineer-in-charge:		
10.14.1	Profile B		
10.14.1.1	Fixing with adjustable lugs with split end tail to each jamb	metre	385.05
10.14.1.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	metre	374.30
10.14.2	Profile C		
10.14.2.1	Fixing with adjustable lugs with split end tail to each jamb	metre	411.80
10.14.2.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	metre	401.10
10.14.3	Profile E		
10.14.3.1	Fixing with adjustable lugs with split end tail to each jamb	metre	451.90

Code No.	Description	Unit	Rate
10.14.3.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	metre	441.20
10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.		
10.15.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	126.65
10.15.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	116.70
10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.		
10.16.1	Hot finished welded type tubes	kg	121.45
10.16.2	Hot finished seamless type tubes	kg	135.50
10.16.3	Electric resistance or induction butt welded tubes	kg	107.40
10.17	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	each	142.15
10.18	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp, of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	each	150.50
10.19	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	kg	78.75
10.20	Providing and fixing bolts including nuts and washers complete.	kg	100.90
10.21	Providing and fixing M.S. rivets of sizes in position.	kg	158.40

Code No.	Description	Unit	Rate
10.22	Welding by gas or electric plant including transportation of plant at site etc. complete.	cm	3.35
10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.		
10.25.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required. all complete	kg	89.65
10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	kg	107.45
10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.		
10.26.1	M.S. tube	kg	123.50
10.26.2	E.R.W. tubes	kg	113.80
10.26.3	G.I. pipes	kg	136.55
10.27	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.		
10.27.1	10 x 60 mm	each	74.65
10.27.2	10 x 80 mm	each	80.05
10.27.3	10 x 120 mm	each	98.05
10.27.4	10 x 140 mm	each	109.40
10.27.5	10 x 160 mm	each	135.45
10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	529.25

Code No.	Description	Unit	Rate
10.29	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.		
10.29.1	Galvanised M.S. Wire gauze with 0.63 mm dia wire and 1.4 mm aperture on both sides	sqm	607.00
10.29.2	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides	sqm	827.25
10.30	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :		
10.30.1	4.0 mm thick glass panes	sqm	847.55
10.30.2	5.5 mm thick glass panes	sqm	1141.90
10.31	Providing and fixing angle iron frames for doors, windows and ventilators of mild steel Angle sections of size 35x35x5 mm, joints mitred and welded by angle iron 35x35x5 mm or 35x 5 mm flat pieces to the existing T-iron frame or to the wall with dash fastener, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer-In-charge.	kg	87.25

SUB HEAD : 11.0

FLOORING

Code No.	Description	Unit	Rate
11.1	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar, with common burnt clay non modular bricks:		
11.1.1	1:4 (1 cement : 4 coarse sand)	sqm	742.55
11.1.2	1:6 (1cement : 6 coarse sand)	sqm	704.55
11.2	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with Sand, with common burnt clay non modular bricks.	sqm	575.10
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, but excluding the cost of nosing of steps etc. complete.		
11.3.1	40 mm thick with 20 mm nominal size stone aggregate	sqm	378.95
11.4	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	579.05
11.5	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	637.65

Code No.	Description	Unit	Rate
11.6	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement. 11.6.1 18 mm thick	sqm	357.35
11.7	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete.	cum	6281.30
11.8	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	sqm	37.10

TERRAZO FLOORING

11.9	40 mm thick marble chips flooring rubbed and polished to granolithic finish, under layer 34 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 1 mm to 4 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume, including cement slurry etc. complete :			
11.9.1	Dark shade pigment with ordinary cement	sqm	628.90	
11.9.2	Light shade pigment with white cement	sqm	659.00	
11.9.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	640.60	
11.9.4	White cement without any pigment	sqm	637.50	
11.9.5	Light shade pigment with ordinary cement	sqm	625.10	
11.9.6	Ordinary cement without any pigment	sqm	600.35	
11.10	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 31 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 9 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 4 mm to 7 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder : 7 marble chips) by volume, including cement slurry etc. complete.			
11.10.1	Dark shade pigment with ordinary cement	sqm	658.80	
11.10.2	Light shade pigment with white cement	sqm	701.80	
11.10.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	675.40	

Code No.	Description	Unit	Rate
11.10.4	White cement without any pigment	sqm	675.05
11.10.5	Light shade pigment with ordinary cement	sqm	655.00
11.10.6	Ordinary cement without any pigment	sqm	619.40
11.11	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 28 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 12 mm thick with white, black, chocolate, grey yellow or green marble chips of sizes from 7 mm to 10 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 2:3 (2 cement marble powder mix : 3 marble chips) by volume, including cement slurry etc. complete :		
11.11.1	Dark shade pigment with ordinary cement	sqm	691.75
11.11.2	Light shade pigment with white cement	sqm	752.00
11.11.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	715.05
11.11.4	White cement without any pigment	sqm	705.30
11.11.5	Light shade pigment with ordinary cement	sqm	684.15
11.11.6	Ordinary cement without any pigment	sqm	637.45
11.12	Marble chips skirting up to 30 cm height, rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume :		
11.12.1	18 mm thick with under layer 12 mm thick in cement plaster 1:3 (1 cement : 3 coarse sand) :		
11.12.1.1	Dark shade pigment with ordinary cement	sqm	859.25
11.12.1.2	Light shade pigment with white cement	sqm	889.35
11.12.1.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	870.95
11.12.1.4	White cement without any pigment	sqm	867.85
11.12.1.5	Light shade pigment with ordinary cement	sqm	855.45
11.12.1.6	Ordinary cement without any pigment	sqm	831.80

Code No.	Description	Unit	Rate
11.13	Providing and fixing glass strips in joints of terrazo/cement concrete floors.		
11.13.1	40 mm wide and 4 mm thick	metre	57.05
11.14	Extra for laying terrazo flooring on staircase treads not exceeding 30 cm in width, including cost of forming, nosing etc.	sqm	40.80
11.15	Crazy marble stone flooring, including filling the gaps with light shade pigment with white cement marble powder mixture (3 parts of white cement : 1 part of marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 white, black or white and black marble chips of sizes from 1 mm to 4 mm nominal size by volume), with under layer 25 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size), including rubbing, polishing and cement slurry etc. complete :		
11.15.1	18 mm thick crazy marble stone white, black or as specified	sqm	962.05
TILE FLOORING			
11.16	Precast terrazo tiles 22 mm thick with graded marble chips of size upto 12 mm, laid in floors, and landings, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement:4 coarse sand) :		
11.16.1	Light shade pigment using white cement	sqm	1024.90
11.16.2	Medium shade pigment using 50% white cement and 50% ordinary cement	sqm	975.35
11.16.3	Dark shade pigment using ordinary cement	sqm	933.30
11.16.4	Ordinary cement without any pigment	sqm	877.85
11.17	Extra if terrazo tiles are laid in treads of steps not exceeding 30 cm in width.	sqm	48.35
11.18	Precast terrazo tiles 22 mm thick with graded marble chips of sizes upto 12 mm, in skirting and risers of steps not exceeding 30 cm in height, on 12 mm 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 :		
11.18.1	Light shade pigment using white cement	sqm	1325.00
11.18.2	Medium shades pigment using 50% white cement and 50% ordinary cement	sqm	1265.45
11.18.3	Dark shade pigment using ordinary cement	sqm	1217.00
11.18.4	Ordinary cement without any pigment	sqm	1147.15

Code No.	Description	Unit	Rate
11.19	Chequered terrazo tiles 22 mm thick with graded marble chips of size up to 6 mm in floors, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand) :		
11.19.1	Light shade pigment using white cement	sqm	1010.15
11.19.2	Medium shade pigment using 50% white cement, 50% ordinary cement	sqm	1026.90
11.19.3	Dark shade pigment using ordinary cement	sqm	955.35
11.19.4	Ordinary cement without any pigment	sqm	900.10
11.20	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)		
11.20.1	Light shade pigment using white cement	sqm	1047.65
11.20.2	Medium shade pigment using 50% white cement 50% Grey cement	sqm	930.25
11.20.3	Dark shade pigment using ordinary cement	sqm	754.00
11.20.4	Ordinary cement without any pigment	sqm	698.55
11.21	Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in- Charge		
11.21.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)		
11.21.1.1	Acid and alkali resistant tile	sqm	1358.30
11.21.2	In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)		
11.21.2.1	Acid and alkali resistant tile	sqm	1437.10
11.22	Tile work in skirting, risers of steps and dado up to 2 m height over 12 mm thick bed of cement mortar 1:3 (1 cement :3 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm, including pointing in white cement mixed with pigment of matching shade complete.		
11.22.1	Marble tiles (polished) Raj Nagar		
11.22.1.1	8 mm thick	sqm	1068.95

MARBLE STONE FLOORING

Code No.	Description	Unit	Rate
11.23	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :		
	11.23.1 Makrana white second quality	sqm	2928.30
	11.23.2 Raj Nagar plain	sqm	1651.20
	11.23.3 Agaria White	sqm	2420.55
	11.23.4 Black Zebra	sqm	2112.80
	11.23.5 Udaipur green marble	sqm	1687.05
	11.23.6 Pink plain marble	sqm	1720.45
11.24	Extra for pre finished nosing to treads of steps of marble stone.	metre	313.45
11.25	Extra for marble stone flooring in treads of steps and risers using single length up to 2.00 metre.	sqm	360.20
KOTA STONE FLOORING			
11.26	Kota stone slab flooring 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) :		
	11.26.1 25 mm thick	sqm	1215.70
11.27	Kota stone slabs 20 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.	sqm	1279.95
SAND STONE FLOORING			
11.28	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints finished flush.		
	11.28.1 Red sand stone	sqm	702.00
	11.28.2 White sand stone	sqm	702.00
11.29	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand), including pointing with cement mortar 1:2 (1 cement : 2 stone dust) with an admixture of pigment to match the shade of stone.		
	11.29.1 Red sand stone	sqm	820.90
	11.29.2 White sand stone	sqm	820.90

Code No.	Description	Unit	Rate
11.30	40 mm thick rubbed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar.		
	11.30.1 Red sand stone	sqm	887.10
	11.30.2 White sand stone	sqm	887.10
11.31	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	metre	95.55
11.32	Extra for Kota stone/ sand stone in treads of steps and risers using single length up to 1.05 metre.	sqm	18.60
11.33	25 mm wooden planking, tongued and grooved in flooring, including fixing with iron screws complete with :		
	11.33.1 Second class teak wood	sqm	4015.80
	11.33.2 Second class deodar wood	sqm	2649.20
11.34	38 mm thick wood block flooring of first class teak wood laid over 25 mm thick leveling layer of cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 10 mm nominal size) to be paid separately, coated with a thin layer of hot bitumen penetration 80/25 (blown type) @ 2.45 kg per sqm, including fixing blocks in position after dipping in hot bitumen (blown type) up to half depth, planed, levelled smooth and finished complete.	sqm	8132.95
11.35	Providing and fixing M.S. angle 50x50x5 mm to act as nosing with lugs of M.S. flat 10x5 mm, 10 cm long, forked at end 60cm apart (minimum three lugs to be provided), including necessary welding and applying a priming coat of approved primer on exposed surface etc. complete	kg	107.80
CERAMIC GLAZED TILES			
11.37	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	sqm	787.05

Code No.	Description	Unit	Rate
11.37A	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	757.25
11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sq.m including pointing the joints with white cement and matching pigments etc., complete.	sqm	856.85
11.39	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.	sqm	948.55
11.40	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc., complete.	sqm	1030.85
VITRIFIED FLOOR TILES			
11.41	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete	sqm	1127.95
	11.41.1 Size of Tile 500x500 mm		

Code No.	Description	Unit	Rate
	11.41.2 Size of Tile 600x600 mm	sqm	1360.70
	11.41.3 Size of Tile 800x800 mm	sqm	1618.90
	11.41.4 Size of Tile 1000x1000 mm	sqm	2359.45
11.42	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3 kg/ sqm.	sqm	537.75
11.43	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	sqm	453.60
11.44	Crazy ceramic tile flooring, with under layer 12 mm thick cement mortar 1:4 (1 cement: 4 coarse sand), with joints not exceeding 5 mm, including filling the gaps with ordinary cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm , mixing fibre @ 125 grams per 50 kg of cement in cement mortar, including providing and mixing water proofing material in mortar @ 1 kg per 50 kg of cement, all complete as per direction of Engineer-in-charge.	sqm	500.90
11.45	Providing and laying 500x500x40 mm thick Turf paver (Turfpave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick Sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.	sqm	1399.20
11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete		
11.46.1	Size of Tile 500x500 mm	sqm	1142.50
11.46.2	Size of Tile 600x600 mm	sqm	1375.25
11.46.3	Size of Tile 800x800 mm	sqm	1636.20
11.46.4	Size of Tile 1000x1000 mm	sqm	2376.75

Code No.	Description	Unit	Rate
11.46A	Providing and fixing glazed screen printed border tile 75mm wide having thickness 5mm, of approved quality & make, in all shades, design and prints, in dado, over 12mm thick bed of cement mortar 1:3 (1 Cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3 kg/sqm including pointing with white cement mixed with pigment of matching shade, all complete as approved by Engineer - in - Charge	metre	151.85
11.47	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). <ul style="list-style-type: none"> 11.47.1 Size of Tile 500x500 mm 11.47.2 Size of Tile 600x600 mm 11.47.3 Size of Tile 800x800 mm 11.47.4 Size of Tile 1000x1000 mm 	sqm	1254.95
	11.47.2 Size of Tile 600x600 mm	sqm	1487.70
	11.47.3 Size of Tile 800x800 mm	sqm	1748.65
	11.47.4 Size of Tile 1000x1000 mm	sqm	2489.20
11.48	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge <ul style="list-style-type: none"> 11.48.1 Size of Tile 500x500 mm 11.48.2 Size of Tile 600x600 mm 11.48.3 Size of Tile 800x800 mm 11.48.4 Size of Tile 1000x1000 mm 	sqm	224.25
	11.48.2 Size of Tile 600x600 mm	sqm	188.00
	11.48.3 Size of Tile 800x800 mm	sqm	151.80
	11.48.4 Size of Tile 1000x1000 mm	sqm	110.60
11.49	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). <ul style="list-style-type: none"> 11.49.1 Size of Tile 500x500 mm 11.49.2 Size of Tile 600x600 mm 11.49.3 Size of Tile 800x800 mm 11.49.4 Size of Tile 1000x1000 mm 	sqm	1180.15
	11.49.2 Size of Tile 600x600 mm	sqm	1412.90
	11.49.3 Size of Tile 800x800 mm	sqm	1673.85
	11.49.4 Size of Tile 1000x1000 mm	sqm	2414.40

Code No.	Description	Unit	Rate
11.50	Deduct for not grouting the joints with white cement and matching pigment in the items of fixing of vitrified tiles.	sqm	11.00
11.51	Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.	sqm	5678.90
11.51.1	18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	5939.30
11.52	Providing and laying machine cut, mirror polished Marble stone flooring, in required design (Simple geometrical, abstract etc.) and in patterns in combination with Italian marble stones of different colours, shades and finished surface texture etc., in linear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm, including pointing with white cement slurry admixed with pigment to match the marble shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.	sqm	3116.80
11.52.1	18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	5939.30
11.53	Providing and fixing Glass mosaics tiles on finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design, fixing in customize design as per direction of Engineer-in- Charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-Charge:	sqm	3116.80

Code No.	Description	Unit	Rate
11.54	<p>Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings, as specified and as directed by Engineer-in-charge consisting of:</p> <p>(a) Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mm x 100mm x 3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.</p> <p>(b) Stringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid, rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc. all complete as per the architectural drawings, as specified er-in-charge.</p> <p>(c) Providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corroresist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible</p>		

Code No.	Description	Unit	Rate
	Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm. The panel is to withstand a Concentrated Load of 363 kgs applied on area 25mm x 25mm without collapse in the centre of the panel which is placed on four steel blocks. The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge. All specification must be printed on the side of the panel to ensure the quality of the product.		
	11.54.1 300 mm Finished Floor Height (FFH)	sqm	4908.35
	11.54.2 450 mm Finished Floor Height (FFH).	sqm	5197.35
11.55	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :		
	11.55.1 Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	2160.30
11.56	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
	11.56.1 Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	3329.35

SUB HEAD : 12.0

ROOFING

Code No.	Description	Unit	Rate
SHEET ROOFING			
12.1	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, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.		
12.1.1	1.00 mm thick with zinc coating not less than 275 gm/m ²	sqm	1156.55
12.1.2	0.80 mm thick with zinc coating not less than 275 gm/m ²	sqm	984.10
12.1.3	0.63 mm thick with zinc coating not less than 275 gm/ m ²	sqm	837.30
12.2	Extra for straight cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sq. decimeter for chimney stacks, sky light etc.:		
12.2.1	1.00 mm thick	metre	53.30
12.2.2	0.80 mm thick	metre	42.65
12.2.3	0.63 mm thick	metre	42.65
12.3	Extra for circular cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sq. decimeter:		
12.3.1	1.00 mm thick	metre	297.95
12.3.2	0.80 mm thick	metre	237.95
12.3.3	0.63 mm thick	metre	237.95
12.4	Providing ridges or hips of width 60 cm overall 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.		
12.4.1	0.80 mm thick with zinc coating not less than 275 gm/m ²	metre	622.15
12.4.2	0.63 mm thick with zinc coating not less than 275 gm/m ²	metre	550.90
12.5	Providing valleys of 90 cm wide overall in 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 :		

Code No.	Description	Unit	Rate
12.5.1	1.60 mm thick with zinc coating not less than 350 gm/m ²	metre	1147.95
12.6	Providing and fixing of 40 cm overall width 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 (1 cement : 3 coarse sand).		
12.6.1	1.00 mm thick with zinc coating not less than 275 gm/m ²	metre	487.75
12.7	Providing and fixing 15 cm wide, 45 cm overall 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.		
12.7.1	0.80 mm thick with zinc coating not less than 275 gm/m ²	metre	597.75
12.7.2	0.63 mm thick with zinc coating not less than 275 gm/m ²	metre	538.45
12.8	Providing reinforced by organic fibres and/or inorganic synthetic fibres cement 6 mm thick corrugated sheets (as per IS: 14871) roofing up to any pitch and fixing with polymer coated J, or L hooks, bolts and nuts 8 mm 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), including cutting sheets to size and shape wherever required.	sqm	418.20
12.9	Extra for straight cutting in reinforced by organic fibres and/or inorganic synthetic fibres cement corrugated, semi corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square decimeter for chimney stacks, skylights etc.	metre	42.65
12.10	Extra for circular cutting in reinforced by organic fibres and/or inorganic synthetic fibres cement corrugated/ semi corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square decimeter.		
12.11	Extra for providing and fixing wind ties of 40x 6 mm flat iron section.	metre	117.80
12.12	Providing and fixing ridges and hips in fibre cement reinforced by organic fibres and/or inorganic synthetic fibres roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete.	metre	140.00
12.12.1	Corrugated serrated adjustable ridges	metre	394.15
12.12.2	Plain wing adjustable ridges	metre	394.15

Code No.	Description	Unit	Rate
12.12.3	Close fitting adjustable ridges	metre	448.00
12.12.4	Unserrated adjustable hips	metre	393.20
12.13	Providing and fixing fibre cement reinforced by organic fibres and/or inorganic synthetic fibres 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:		
12.13.1	Corrugated apron pieces	metre	339.00
12.13.2	Eave's filler pieces	metre	270.85
12.13.3	North light curves	metre	463.20
12.13.4	Ventilator curves	metre	505.60
12.13.5	Barge boards	metre	608.50
12.13.6	Ridge finials	pair	260.65
12.13.7	Special north light curves	each	847.85
12.13.8	S type louvers	metre	373.80
12.14	Providing flat iron brackets 50x3 mm size with necessary bolts, nuts and washers etc. for fixing G.S. sheets gutters with purlins.	metre	58.20
12.15	Painting top of roofs with bitumen of approved quality @ 17kg per 10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm, including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete :		
12.15.1	With residual type petroleum bitumen of grade VG -10	sqm	107.85
12.16	10 cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25 mm thick mud mortar mixed with bhusa @ 35 kg per cum of earth and gobri leaping with mix 1:1 (1 clay : 1 cow dung) and covered with flat tile bricks, grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement and finished neat:		
12.16.1	With common burnt clay F.P.S.(non modular) brick tile of class designation 10	sqm	601.30

Code No.	Description	Unit	Rate
12.17	10cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25 mm thick mud mortar with bhusha @ 35 kg per cum of earth and gobri leaping with mix 1:1 (1 clay : 1 cow-dung) and covered with machine moulded tile bricks, grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement and finished neat.		
12.17.1	With machine moulded common burnt clay F.P.S. (non modular) brick tiles of class designation 12.5. conforming to IS 2690	sqm	621.60
12.18	Extra for every additional 1 cm thickness of mud phaska.	sqm	14.80
12.19	Providing and laying brick tiles over mumty 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 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat:		
12.19.1	With common burnt clay F.P.S. (non modular) brick tiles of class designation 10	sqm	431.95
12.20	Providing and laying pressed clay tiles (as per approved pattern 20 mm nominal thickness of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound, laid over a bed of 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete.	sqm	474.30
12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :		
12.21.1	In 75x75 mm deep chase	metre	160.90
12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	each	209.50

Code No.	Description	Unit	Rate
12.23	Providing sand stone slab for roofing and laying them in cement mortar 1 : 4 (1 cement : 4 coarse sand) over wooden karries or R.C.C. battens or structural steel sections (Karries or battens or structural steel sections to be paid separately), including pointing the ceiling joints with cement mortar 1:3 (1 cement : 3 fine sand) complete :		
	12.23.1 Red sand stone slab		
	12.23.1.1 40 to 50 mm thick	sqm	592.40
	12.23.2 White sand stone slab		
	12.23.2.1 40 to 50 mm thick	sqm	614.80
	CEILING		
12.24	Providing and fixing insulating board ceiling of approved quality with necessary nails etc. complete (frame work to be paid separately) :		
	12.24.1 Natural colour insulating board		
	12.24.1.1 12 mm thick	sqm	582.65
	12.24.2 White face insulating board		
	12.24.2.1 12 mm thick	sqm	619.45
	12.24.3 Flame retardant face insulating board		
	12.24.3.1 12 mm thick	sqm	744.55
12.25	Providing and fixing flat pressed 3 layer medium density particle board or graded particle board (Grade I) IS: 3087 marked, in ceiling with necessary nails etc. complete (frame work to be paid separately):		
	12.25.1 12 mm thick	sqm	696.75
12.26	Providing and fixing plain multipurpose cement board(Hight pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately).		
	12.26.1 6 mm thick Cement fiber board as per IS: 14862	sqm	581.95
	12.26.2 6 mm thick Cement bonded wood particle board as per IS:14276	sqm	559.90
12.27	Extra for Circular cutting including wastages in ceiling with:		
	12.27.1 2nd class teak wood planks 20 mm thick	metre	483.80
	12.27.2 Natural colour insulating board		
	12.27.2.1 12 mm thick	metre	244.05

Code No.	Description	Unit	Rate
12.27.3	White face insulating board:		
12.27.3.1	12 mm thick	metre	248.60
12.27.4	Flame retardant face insulating board:		
12.27.4.1	12 mm thick	metre	264.15
12.27.5	Standard quality hard board sheet:		
12.27.5.1	3 mm thick	metre	230.20
12.27.5.2	4.5 mm thick	metre	243.95
12.28	Extra for providing and fixing ceiling to curved surfaces in narrow widths	sqm	199.65
12.31	Providing 10 mm thick plaster of Paris (gypsum anhydrous) ceiling up to a height of 5 m above floor level, over first class kail wood strips 25x6 mm with 10 mm gap in between and reinforced with rabbit wire mesh fixed to wooden frame (frame work to be paid separately):		
	12.31.1 Flat surfaces	sqm	980.15
	12.31.2 Curved surfaces	sqm	1140.05
12.32	Extra for sunk or raised mouldings in the plaster of Paris (Gypsum anhydrous) ceiling.	sqm	302.45
12.33	Extra for providing plaster of Paris (Gypsum anhydrous) ceiling above 5 metres height from floor level.	sqm per metre height	120.95
12.34	Providing fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Fibre glass wool conforming to IS : 8183, density 24kg / m ³ , 50mm thick, wrapped in 200 G Virgin Polythene bags, fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5 mm x 24 gauge wire mesh, for top most ceiling of building.	sqm	481.75
12.35	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183. Density 16 kg/m ³ , 50 mm thick, wrapped in 200G Virgin Polythene bags placed over existing false ceiling and held in position by criss-crossing GI wire.	sqm	214.40
12.36	Thermal Insulation of roofing with Expanded polystyrene fixed with suitable adhesive to the false ceiling as per the directions of the Engineer-in-charge:		
	12.36.1 With Type N - Normal 50 mm thick	sqm	241.70
	12.36.2 With Type SE - Self Extinguishing type 50 mm thick	sqm	278.50

RAIN WATER SPOUT AND PIPE

Code No.	Description	Unit	Rate
12.37	Providing and fixing 100 mm diameter and 60 cm long rain water spout in cement mortar 1:4 (1 cement : 4 fine sand).		
	12.37.1 Stone ware spout	each	99.40
12.38	Providing and fixing M.S. holder bat clamps of approved design to C.I. or S.C.I. rain water pipes embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and cost of cutting holes and making good the walls etc. :		
	12.38.1 100 mm diameter	each	185.15
	12.38.2 150 mm diameter	each	205.25
12.39	Providing lead caulked joints to sand cast iron rain water pipes and fittings:		
	12.39.1 100 mm dia Pipe	each	337.60
	12.39.2 150 mm dia Pipe	each	467.70
12.40	Providing, fixing and embedding sand cast iron accessories for rain water pipes in the masonry surrounded with 12 mm thick cement mortar of the same mix, as that of masonry (lead caulking will be paid for separately):		
	12.40.1 Sand cast iron plain shoes :		
	12.40.1.1 150 mm diameter	each	428.25
12.41	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.		
	12.41.1 75 mm diameter	metre	165.15
	12.41.2 110 mm diameter	metre	260.55
12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.		
	12.42.1 Coupler		
	12.42.1.1 75 mm	each	77.85
	12.42.1.2 110 mm	each	117.80
	12.42.2 Single pushfit Coupler		
	12.42.2.1 75 mm	each	77.85

Code No.	Description		Unit	Rate
	12.42.2.2	110 mm	each	108.45
	12.42.3	Single tee with door		
	12.42.3.1	75x75x75 mm	each	139.85
	12.42.3.2	110x110x110 mm	each	203.30
	12.42.4	Single tee without door		
	12.42.4.1	75x75x75 mm	each	122.45
	12.42.4.2	110x110x110 mm	each	188.55
	12.42.5	Bend 87.5°		
	12.42.5.1	75 mm bend	each	89.90
	12.42.5.2	110 mm bend	each	129.85
	12.42.6	Shoe (Plain)		
	12.42.6.1	75 mm Shoe	each	79.20
	12.42.6.2	110 mm Shoe	each	113.80
12.43	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.			
	12.43.1	75 mm	each	188.55
	12.43.2	110 mm	each	187.20
12.44	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.			
			each	47.25
12.45	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed			

Code No.	Description	Unit	Rate
	<p>with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>		
12.45.1	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) : 2011 (Board with BIS certification marks)	sqm	859.45
12.45.2	12.5 mm thick tapered edge Glass Reinforced Gypsum (GRG) board conforming to IS: 2095- (Part 3) : 1996 (Board with BIS certification marks)	sqm	978.90
12.45.3	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	1028.05
12.45.4	Fully Perforated Gypsum Plaster Board of size 1200 x 2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60	sqm	1217.70

Code No.	Description	Unit	Rate
12.46	Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.	each	100.45
12.47	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to 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-violet 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.		
12.47.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	sqm	1031.85
12.47.2	2 mm thick flat	sqm	936.00
12.48	Providing & fixing on roof pressed clay tile (Mangalore tile) of 20 mm nominal thickness and of approved size and as per approved pattern on steel frame work complete (steel frame work to be paid separately).	sqm	264.45
12.49	Providing & laying on roof pressed clay tile ridge (Mangalore tile) of 20mm thickness and of approved pattern on steel frame work complete (steel frame work to be paid separately).	sqm	58.00
12.50	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, 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 wherever required.	sqm	592.45

Code No.	Description	Unit	Rate
12.51	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :		
12.51.1	12.51.1 Ridges plain (500 - 600mm)	metre	377.05
12.51.2	12.51.2 Flashings/ Aprons.(Upto 600 mm)	metre	348.90
12.51.3	12.51.3 North light curves	metre	419.55
12.51.4	12.51.4 Barge board (Upto 300 mm)	metre	336.40
12.51.5	12.51.5 Crimp curve	sqm	386.80
12.51.6	12.51.6 Gutter (600 mm over all girth)	metre	890.50
12.52	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, 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 of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.		

Code No.	Description	Unit	Rate
12.52.1	GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.	sqm	1333.30
12.52.2	GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece.	sqm	1478.00
12.52.3	12.5 mm thick square edge PVC Laminated Gypsum Tile of size 595x595 mm, made of Gypsum plasterboard, manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16mm thick fire retardant PVC film on the face side and 12micron metalized polyester on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edges and the back side metalized polyester film so as to make the tile a completely sealed unit.	sqm	1709.80
12.52.4	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS: 2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backina.	sqm	1000.35

Code No.	Description	Unit	Rate
12.53	<p>Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum)</p> <p>sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyester baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge.</p>	sqm	1472.80

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 tile shall have NRC value of 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/ mK

Code No.	Description	Unit	Rate
12.54	<p>Providing and fixing GI Clip in Metal Ceiling System of 600x600 mm module which includes providing and fixing 'C' wall angle of size 20x30x20 mm made of 0.5 mm thick pre painted steel along the perimeter of the room with help of nylon sleeves and wooden screws at 300 mm center to centre, suspending the main C carrier of size 10x38x10 mm made of G.I steel 0.7 mm thick from the soffit with help of soffit cleat 37x27x25x1.6 mm, rawl plugs of size 38x12 mm and C carrier suspension clip and main carrier bracket at 1000 mm c/c. Inverted triangle shaped Spring Tee having height of 24 mm and width of 34 mm made of GI steel 0.45 mm thick is then fixed to the main C carrier and in direction perpendicular to it at 600 mm centers with help of suspension brackets. Wherever the main C carrier and spring T have to join, C carrier and spring T connectors have to be used. All sections to be galvanized @ 120 gms/sqm (both side inclusive), fixing with clip in tiles into spring T with :</p> <p>12.54.1 GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of G I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.</p> <p>12.54.2 GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of G I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation.</p>	sqm	1562.95
12.55	<p>Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.</p>	sqm	1710.50
		sqm	1160.40

Code No.	Description	Unit	Rate
12.56	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/ cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	sqm	1412.20
12.57	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183 having density 24 kg/m ³ , 50 mm thick, wrapped in 200G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	sqm	283.05
12.58	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm		

Code No.	Description	Unit	Rate
	<p>and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, 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 of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.</p>		
12.58.1	<p>8 mm thick fully perforated calcium silicate board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with minimum compressive strength 225 kg/ sq. cm, bending strength 100 kg/sq. cm , of size 595x595 mm, having perforation of dia. 10 mm with minimum perforated area 18 % with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.85, with 50 mm thick rockwool of 48 kg /cum backina.</p>	<p>sqm</p>	<p>1588.60</p>

Code No.	Description	Unit	Rate
12.59	<p>Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes, finishing with jointing compounds in three layers covering up to 150mm on both sides of joints and two coats of primer suitable for boards, all as per manufacturer's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in charge but excluding the cost of painting with:</p>		
12.59.1	8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.	sqm	1014.90

Code No.	Description	Unit	Rate
12.60	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Rockwool conforming to IS: 8183, density 48 kg/ m3, 50 mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24 gauge wire mesh, for top most ceiling of building.	sqm	447.90
12.61	Providing and fixing thermal insulation with Resin bonded rock wool conforming to IS: 8183, density 48 kg/m3, 50 mm thick, wrapped in 200 G virgin Polythene bags placed over existing false ceiling and held in position by criss-crossing GI wire.	sqm	243.85
12.62	Providing and fixing thermal insulation with Resin Bonded rock wool conforming to IS: 8183, having density 48 kg / m3, 50 mm thick, wrapped in 200 G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held and in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	sqm	249.20
12.63	Providing and applying two coats of High Albedo paint having minimum Solar Reflective Index (SRI) 108 (with solar reflectance & thermal emittance tested as per ASTM C 1549 and ASTM C 1371 respectively), VOC less than 10 cc/gm. The coating thickness and the methodology of application shall strictly as per manufacturer's specifications and as approved by Engineer-in-Charge. Surface preparation includes cleaning with metal wire brush to remove all dust, fungus etc., washing with water all complete. The contractor shall give guarantee for the performance of SRI and also the durability of coating, all complete as per direction of Engineer-in-Charge.	sqm	275.70

SUB HEAD : 13.0

FINISHING

Code No.	Description		Unit	Rate		
Note :- Rates for external plaster are for height upto 10m from ground level in less otherwise stated.						
CEMENT PLASTER (IN FINE SAND)						
13.1 12 mm cement plaster of mix : 13.1.1 1:4 (1 cement: 4 fine sand) sqm 172.85 13.1.2 1:6 (1 cement: 6 fine sand) sqm 160.25						
13.2 15 mm cement plaster on the rough side of single or half brick wall of mix : 13.2.1 1:4 (1 cement: 4 fine sand) sqm 200.45 13.2.2 1:6 (1 cement: 6 fine sand) sqm 185.40						
13.3 20 mm cement plaster of mix : 13.3.1 1:4 (1 cement: 4 fine sand) sqm 241.40 13.3.2 1:6 (1 cement: 6 fine sand) sqm 221.75						
CEMENT PLASTER (IN COARSE SAND)						
13.4 12 mm cement plaster of mix : 13.4.1 1:4 (1 cement: 4 coarse sand) sqm 182.15 13.4.2 1:6 (1 cement: 6 coarse sand) sqm 169.50						
13.5 15 mm cement plaster on rough side of single or half brick wall of mix: 13.5.1 1:4 (1 cement: 4 coarse sand) sqm 211.50 13.5.2 1:6 (1 cement: 6 coarse sand) sqm 196.45						
13.6 20 mm cement plaster of mix : 13.6.1 1:4 (1 cement: 4 coarse sand) sqm 255.80 13.6.2 1:6 (1 cement: 6 coarse sand) sqm 236.20						
ENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT						
13.7 12 mm cement plaster finished with a floating coat of neat cement of mix : 13.7.1 1:3 (1 cement: 3 fine sand) sqm 226.20 13.7.2 1:4 (1 cement: 4 fine sand) sqm 213.60						

Code No.	Description	Unit	Rate
13.8	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :		
	13.8.1 1:3 (1 cement: 3 fine sand)	sqm	256.25
	13.8.2 1:4 (1 cement: 4 fine sand)	sqm	241.20
13.9	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.		
	13.9.1 12 mm cement plaster	sqm	235.50
	13.9.2 20 mm cement plaster	sqm	316.15
13.10	15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.	sqm	267.35
CEMENT PLASTER IN TWO COATS			
13.11	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	sqm	256.95
13.12	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.	sqm	274.20
13.13	12 mm cement plaster 1:2 (1 cement : 2 stone dust).	sqm	203.30
13.14	15 mm cement plaster 1:2 (1 cement : 2 stone dust) on the rough side of single or half brick wall.	sqm	236.80
13.15	20 mm cement plaster 1:2 (1 cement : 2 stone dust).	sqm	288.70
6MM CEMENT PLASTER			
13.16	6 mm cement plaster of mix :		
	13.16.1 1:3 (1 cement : 3 fine sand)	sqm	142.35
13.17	6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	sqm	191.05
13.18	Neat cement punning.	sqm	42.10
ROUGH CAST PLASTER			

Code No.	Description	Unit	Rate
13.19	Rough cast plaster upto 10 m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.		
13.19.1	Ordinary cement finish using ordinary cement	sqm	441.80
PEBBLE DASH PLASTER			
13.20	Pebble dash plaster upto 10 m height above ground level with a mixture of washed pebble or crushed stone 6 mm to 12.5 mm nominal size, dashed over and including fresh plaster in two layers under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.	sqm	416.30
13.21	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	per bag of 50kg cement used in the mix	59.75
13.22	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	sqm	43.50
13.23	Extra for plastering on circular work not exceeding 6 m in radius:		
	13.23.1 In one coat	sqm	20.50
	13.23.2 In two coats	sqm	31.50
13.24	Extra for plastering done on moulding, cornices or architraves including neat finish to line and level:		
	13.24.1 In one coat	sqm	293.40
	13.24.2 In two coats	sqm	482.90
13.25	Extra for plastering:		
	13.25.1 Spherical ceiling	sqm	76.55
	13.25.2 Groined ceiling	sqm	83.55
	13.25.3 Flewing soffits	sqm	50.10
13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	sqm	135.90

ARTIFICIAL STONE PLASTER

Code No.	Description	Unit	Rate
13.27	Extra for lining out plaster to imitate stone or concrete blocks walling.	sqm	47.00
PLAIN CEMENT MORTAR BANDS			
13.28	12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand):		
	13.28.1 Flush Band	cm per metre	3.40
	13.28.2 Sunk Band	cm per metre	3.70
	13.28.3 Raised Band	cm per metre	4.15
	13.28.4 Moulded Band	cm per metre	6.95
13.29	18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand):		
	13.29.1 Flush Band	cm per metre	4.20
	13.29.2 Sunk Band	cm per metre	4.55
	13.29.3 Raised Band	cm per metre	5.20
	13.29.4 Moulded Band	cm per metre	9.40
13.30	18 mm thick moulded cement mortar band in two coats under layer 12 mm thick with cement mortar 1:5 (1 cement : 5 coarse sand) top layer 6 mm thick with cement mortar 1:4 (1 cement : 4 fine sand).	cm per metre	9.40
POINTING ON BRICK WORK			
13.31	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):		
	13.31.1 Flush / Ruled/ Struck or weathered pointing	sqm	112.50
	13.31.2 Raised and cut pointing	sqm	183.55
POINTING ON TILE BRICK WORK			
13.32	Pointing on tile brick work with cement mortar 1:3 (1 cement : 3 fine sand):		
	13.32.1 Flush/ Ruled/ Struck or weathered pointing	sqm	153.65
POINTING ON STONE WORK			
13.33	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :		
	13.33.1 Flush/ Ruled pointing	sqm	163.30
	13.33.2 Raised and cut pointing	sqm	296.70
13.34	Raised and cut pointing on stone work in white cement mortar 1:3 (1 white cement : 3 marble dust).	sqm	314.20

Code No.	Description	Unit	Rate
13.35	Pointing on stone slab ceiling with cement mortar 1:2 (1 cement : 2 fine sand): 13.35.1 Flush/ Ruled pointing	sqm	92.30
13.36	Extra for pointing on walls on the outside at height more than 10 m from ground level for every additional height of 3 m or part thereof.	sqm	7.15
INTERIOR FINISHING			
13.37	White washing with lime to give an even shade : 13.37.1 New work (three or more coats)	sqm	17.45
13.38	Satna lime wash on walls with one coat.	sqm	7.05
13.39	Colour washing such as green, blue or buff to give an even shade : 13.39.1 New work (two or more coats) with a base coat of white washing with lime 13.39.2 New work (two or more coats) with a base coat of whiting	sqm	23.90
13.40	Distempering with dry distemper of approved brand and manufacture (two or more coats) of required shade on new work, over and including water thinnable priming coat to give an even shade.	sqm	72.45
13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : 13.41.1 New work (two or more coats) over and including water thinnable priming coat with cement primer	sqm	96.85
13.42	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre , of approved manufacturer, of required shade and colour complete, as per manufacturer's specification. 13.42.1 Two or more coats on new work	sqm	56.25
13.43	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : 13.43.1 Water thinnable cement primer	sqm	37.40
EXTERIOR FINISHING			
13.44	Finishing walls with water proofing cement paint of required shade : 13.44.1 New work (Two or more coats applied @ 3.84 kg/10 sqm)	sqm	61.20
13.45	Finishing walls with textured exterior paint of required shade :		

Code No.	Description	Unit	Rate
13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	sqm	196.05
13.46	Finishing walls with Acrylic Smooth exterior paint of required shade :		
13.46.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	128.75
13.47	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:		
13.47.1	New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	125.20
13.48	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :		
13.48.1	Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	sqm	106.25
13.48.2	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture	sqm	94.30
13.48.3	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	sqm	89.90
13.48A	Finishing walls with 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives.		
13.48A.1	New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.	sqm	110.05
13.50	Applying priming coat:		
13.50.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	sqm	38.95

Code No.	Description	Unit	Rate
13.50.2	With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood	sqm	39.45
13.50.3	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	sqm	33.30
13.50.4	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	sqm	18.50
13.51	Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces :		
13.51.1	One coat	sqm	61.60
13.51.2	Two coats	sqm	97.85
13.52	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.		
13.52.1	On steel work	sqm	132.50
13.52.2	On concrete work	sqm	132.15
13.53	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
13.53.1	New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution	sqm	90.20
13.54	Applying a coat of mordant solution on G.S. sheet:		
13.54.1	With a solution of 38 gms of copper acetate in a litre of soft water	sqm	30.90
13.54.2	With a solution made of 13 gms of hydrochloric acid in a solution of 13 gms each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water	sqm	30.65
13.55	Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work:		
13.55.1	100 mm diameter pipes	metre	39.35
13.55.2	150 mm diameter pipes	metre	58.70

Code No.	Description	Unit	Rate
13.56	Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.		
	13.56.1 100 mm diameter pipes	metre	44.85
	13.56.2 150 mm diameter pipes	metre	66.85
13.57	Painting with oil type wood preservative of approved brand and manufacture :		
	13.57.1 New work (two or more coats)	sqm	33.65
13.58	Providing and applying two coats of fire retardant paint on cleaned wood / ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.	sqm	252.85
13.59	Coal tarring two coats on new work using 0.16 Litre and 0.12 litre coal tar per sqm in the first coat and second coat respectively.	sqm	36.65
13.60	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :		
	13.60.1 Two or more coats on new work	sqm	89.50
13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :		
	13.61.1 Two or more coats on new work	sqm	82.40
13.62	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
	13.62.1 Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	sqm	119.90
13.63	Painting with aluminium paint of approved brand and manufacture to give an even shade .		
	13.63.1 Two or more coats on new work	sqm	73.10
13.64	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :		
	13.64.1 Two or more coats on new work	sqm	90.95
13.65	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :		
	13.65.1 Two or more coats on new work	sqm	66.90

Code No.	Description	Unit	Rate
13.66	Floor painting with floor enamel paint of approved brand and manufacture of required colour to give an even shade :		
13.66.1	Two or more coats on new work	sqm	105.50
13.67	Varnishing with varnish of approved brand and manufacture :		
13.67.1	Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish	sqm	117.15
13.67.2	Two or more coats glue sizing with spar varnish or an under coat of flatting varnish	sqm	118.00
13.68	French spirit polishing :		
13.68.1	Two or more coats on new works including a coat of wood filler	sqm	208.55
13.69	Polishing on wood work with ready mixed wax polish of approved brand and manufacture :		
13.69.1	New work	sqm	92.95
13.70	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.	sqm	43.85
13.71	Lettering with black Japan paint of approved brand and manufacture	per letter per cm	2.65
13.72	Washed stone grit plaster on exterior walls height upto 10 metre above ground level, in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand), furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 Kg of cement per square metre, top layer 15 mm cement plaster 1:1/ 2:2 (1 cement: 1/2 coarse sand : 2 stone chipping 10 mm nominal size), in panels with groove all around as per approved pattern, including scrubbing and washing the top layer with brushes and water to expose the stone chippings ,complete as per specification and direction of Engineer-in-charge (payment for providing grooves shall be made separately).	sqm	610.05
13.73	Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer, including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge :		
13.73.1	15 mm wide and 15 mm deep groove	metre	37.95
13.73.2	20 mm wide and 15 mm deep groove	metre	38.55

Code No.	Description	Unit	Rate
13.74	Extra for washed grit plaster on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	sqm	103.70
13.75	Extra for washed stone grit plaster on circular work not exceeding 6 m in radius (in two coats).	sqm	67.70
13.76	Forming groove of uniform size from 12x12 mm and upto 25x15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer-in- Charge.	metre	78.95
13.77	Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.	sqm	83.75
13.78	Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.	sqm	251.05
13.79	Extra for addition of synthetic Polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement plaster/mortar by using 125 gms. of synthetic Polyester triangular fibre for 50 Kgs. cement used in cement mortar as per directions of Engineer-in-Charge.	per bag of 50kg of cement	66.90
13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	85.10
13.81	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.	sqm	31.75
	13.81.1 One coat	sqm	31.75
	13.81.2 Two coats	sqm	51.00

Code No.	Description	Unit	Rate
13.82	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.		
	13.82.1 One coat	sqm	45.70
	13.82.2 Two coats	sqm	67.70
13.83	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.		
	13.83.1 One coat	sqm	49.00
	13.83.2 Two coats	sqm	74.80
13.85	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.		
	13.85.1 With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	sqm	38.95
	13.85.3 With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	sqm	37.40
13.86	6 mm plaster on cement concrete or reinforced cement concrete work with white cement based polymer modified self curing mortar of approved make as per the direction of Engineer-In-Charge.	sqm	158.85
13.87	White washing with lime to give an even shade :		
	13.87.1 Old work (two or more coats)	sqm	10.50
	13.87.2 Old work (one or more coats)	sqm	6.50
13.88	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	sqm	8.50
13.89	Distempering with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.	sqm	30.70
13.90	Distempering with 1st quality acrylic distemper (Ready mix) having VOC content less than 50 grams/ litre of approved brand and manufacture to give an even shade :		
	13.90.1 Old work (one or more coats)	sqm	35.45

Code No.	Description	Unit	Rate
13.91	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	11.15
13.92	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
13.92.1	Old work (one or more coats)	sqm	45.00
13.93	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :		
13.93.1	75 mm diameter pipes	metre	29.35
13.94	Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :		
13.94.1	75 mm diameter pipes	metre	14.05
13.94.2	100 mm diameter pipes	metre	18.45
13.94.3	150 mm diameter pipes	metre	26.30
13.95	Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with aluminium paint of approved brand and manufacture over a priming coat of ready mixed zinc chromate yellow primer on new work :		
13.95.1	75 mm diameter pipes	metre	30.90
13.95.2	100 mm diameter pipes	metre	43.80
13.95.3	150 mm diameter pipes	metre	65.30
13.96	Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :		
13.96.1	75 mm diameter pipes	metre	14.95
13.96.2	100 mm diameter pipes	metre	19.25
13.96.3	150 mm diameter pipes	metre	27.40
13.97	Painting with oil type wood preservative of approved brand and manufacture:		
13.97.1	Old work (one or more coats)	sqm	25.90
13.98	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:		
13.98.1	One or more coats on old work	sqm	58.55

Code No.	Description	Unit	Rate
13.99	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : 13.99.1 One or more coats on old work	sqm	53.85
13.100	Painting with aluminium paint of approved brand and manufacture to give an even shade: 13.100.1 One or more coats on old work	sqm	47.20
13.101	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade : 13.101.1 One or more coats on old work	sqm	59.00
13.102	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade : 13.102.1 One or more coats on old work	sqm	44.85
13.103	French spirit polishing : 13.103.1 One or more coats on old work	sqm	105.10
13.104	Polishing on wood work with ready made wax polish of approved brand and manufacture : 13.104.1 Old work	sqm	47.30
13.105	Re-lettering with black Japan paint of approved brand and manufacture.	per letter per cm	1.70
13.106	Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.	sqm	46.35
13.107	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin: 13.107.1 32 mm dia 13.107.2 40 mm dia	each	75.10
13.108	Distempering with 1st quality acrylic distemper (ready made) having VOC content less than 50 gm per ltr. of approved manufacturer and of required shade and colour complete. as per manufacturer's specification. 13.108.1 One or more coats on old work	sqm	32.10
13.109	Finishing walls with water proofing cement paint of required shade : 13.109.1 Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litrs/10 sqm complete includina cost of Primina coat. 13.109.2 Old work (one or more coats @ 2.20 kg/10 sqm) complete.	sqm	59.20
13.110	Finishing walls with textured exterior paint of required shade :	sqm	39.30

Code No.	Description		Unit	Rate
13.110.1	Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.		sqm	142.75
13.110.2	Old work (One or more coats) applied @ 1.82 ltr/10 sqm.		sqm	86.50
13.111	Finishing walls with Acrylic Smooth exterior paint of required shade :			
13.111.1	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface		sqm	73.85
13.111.2	Old work (One or more coat applied @ 0.90 ltr/10 sqm).		sqm	48.50
13.112	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade			
13.112.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface		sqm	71.70
13.112.2	Old work (one or more coats applied @ 0.83 ltr/10 sqm).		sqm	48.15
13.113	Varnishing with varnish of approved brand and manufacture:			
13.113.1	One or more coats with copal varnish		sqm	47.30
13.113.2	One or more coats with spar varnish		sqm	47.75
13.114	Melamine polishing on wood work (one or more coat).		sqm	85.35
13.115	Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work.		sqm	50.55

SUB HEAD : 14.0

REPAIRS TO BUILDING

Code No.	Description	Unit	Rate
14.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.1.1	With cement mortar 1:4 (1 cement : 4 fine sand)	sqm	264.35
14.1.2	With cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	276.15
14.2	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.2.1	Door chowkhats	each	883.05
14.2.2	Window chowkhats	each	538.05
14.2.3	Clerestory window chowkhats	each	395.90
14.3	Fixing chowhat in existing opening in brick/ RCC wall with dash fasteners/Chemical fasteners of appropriate size (3 nos on each vertical member of door chowhat and 2 nos on each vertical member of window chowkhats), including Cost of dash fasteners/ chemical fastener.	each	175.80
14.4	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.		
14.4.1	For door/ window/ clerestory window	sqm	554.65

Code No.	Description	Unit	Rate
14.5	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:		
14.5.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	sqm	723.85
14.5.2	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)	sqm	1018.20
14.6	Renewing glass panes, with wooden fillets wherever necessary:		
14.6.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	sqm	936.90
14.6.2	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)	sqm	1231.20
14.7	Renewing glass panes and refixing existing wooden fillets:		
14.7.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	sqm	772.45
14.7.2	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)	sqm	1066.80
14.8	Supplying and fixing new wooden fillets wherever necessary:		
14.8.1	2nd class teak wood fillets	metre	43.35
14.8.2	Hollock wood fillets	metre	36.55
14.9	Renewal of old putty of glass panes (length)	metre	25.90
14.10	Refixing old glass panes with putty and nails	sqm	336.65
14.11	Fixing old glass panes with wooden fillets (excluding cost of fillets)	sqm	293.35
14.12	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	each	286.35
14.13	Regrading terracing of mud phaska covered with tiles or brick, in cement mortar by dismantling tiles or bricks, removing mud plaster, preparing the surface of mud phaska to proper slope, relaying mud plaster gobri leaping and tiles or bricks, grouted in cement mortar 1:3 (1 cement : 3 fine sand), including replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material to the dumping ground (the cost of the new tiles or brick excluded), all complete as per direction of Engineer-in-Charge.	sqm	306.05

Code No.	Description	Unit	Rate
14.14	Replacing sand stone slabs in roofing, laid in cement mortar 1:4 (1 cement : 4 coarse sand), including necessary repairs and cement pointing with same mortar complete, including disposal of rubbish to dumping ground, all complete as per direction of Engineer-in-Charge.		
14.14.1	Red/ white sand stone slabs 30 to 50 mm thick	sqm	694.65
14.15	Renewing wooden battens in roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.15.1	Sal wood battens	cum	87881.60
14.16	Renewing wooden beams in roofs including making good the holes in walls and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.16.1	Not exceeding 4.00 metres in length.		
14.16.1.1	Sal wood beams	cum	90277.15
14.16.1.2	Hollock wood beams	cum	55811.30
14.16.2	Above 4.00 metres and upto 5.00 metres length.		
14.16.2.1	Sal wood beams	cum	91410.80
14.16.2.2	Hollock wood beams	cum	56909.00
14.17	Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.	sqm	29.55
14.18	Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska :		
14.18.1	With F.P.S. brick tiles	sqm	62.70
14.18.2	With modular brick tiles	sqm	63.85
14.19	Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.	kg	2.20

Code No.	Description	Unit	Rate
14.20	Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand & manufacturer over and including priming coat of ready mixed zinc chromate yellow primer of approved brand.	metre	86.15
14.21	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	kg	165.90
14.22	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.		
14.22.1	Wheel 50 mm dia and below	per wheel	139.65
14.22.2	Wheel above 50 mm dia	per wheel	218.20
EARTH WORK			
14.23	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	kilo litre	110.90
14.24	Mud mortar made with local clay good earth.	cum	494.30
BRICK WORK			
14.25	Brick work with common burnt clay bricks of class designation 7.5 in mud mortar	cum	4417.50
WOOD WORK			
14.26	Providing and fixing 25 mm thick shutters for cup board etc. :		
14.26.1	Panelled or panelled & glazed shutters :		
14.26.1.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3920.15
14.26.1.2	1st class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3316.20
14.26.2	Glazed shutters :		
14.26.2.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3912.85
14.26.2.2	1st class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3262.45
14.27	Providing and fixing plain jaffri door and window shutters including bright or/and black enamelled M.S. butt hinges with necessary screws 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with :		
14.27.1	Second class teak wood	sqm	3596.10

Code No.	Description	Unit	Rate
14.28	Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete.		
	14.28.1 20 mm diameter.	metre	284.40
	14.28.2 25 mm diameter.	metre	351.30
14.29	Providing and fixing M.S. round or square bars with M.S. flats at required spacing in wooden frames of windows and clerestory windows.	kg	81.15
14.30	Providing joists (karries) including hoisting, fixing in position and applying wood preservative on unexposed surface etc. complete with :		
	14.30.1 Sal wood	cum	86622.50
	14.30.2 Hollock wood	cum	52505.10
14.31	Providing and fixing bright finished brass single acting spring hinges with necessary brass screws etc. complete :		
	14.31.1 150 mm	each	627.20
	14.31.2 125 mm	each	439.90
	14.31.3 100 mm	each	387.70
14.32	Providing and fixing bright finished brass double acting spring hinges with necessary brass screws etc. complete :		
	14.32.1 150 mm	each	700.80
	14.32.2 125 mm	each	593.75
	14.32.3 100 mm	each	575.05
14.33	Providing and fixing bright finished brass flush bolts with necessary brass screws etc. complete :		
	14.33.1 250 mm	each	222.45
	14.33.2 150 mm	each	193.50
	14.33.3 100 mm	each	140.00
14.34	Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete		
14.35	Providing and fixing bright finished brass hard drawn hooks and eyes :		
	14.35.1 300 mm	each	84.35
	14.35.2 250 mm	each	80.85
	14.35.3 200 mm	each	72.30
	14.35.4 150 mm	each	57.60
	14.35.5 100 mm	each	50.20
14.36	Providing and fixing bright finished brass fan light pivot with necessary brass screws etc. complete.		
		each	36.90

Code No.	Description	Unit	Rate
14.37	Providing and fixing 300 mm long bright finished brass chain with hook for fan light including necessary brass screws etc. complete.	each	60.15
14.38	Providing and fixing bright finished brass quadrant stay 300 mm long with necessary brass screws etc. complete.	each	159.15
14.39	Providing and fixing bright finished brass helical door spring (superior quality).	each	437.55
14.40	Providing and fixing chromium plated brass butt hinges with necessary chromium plated brass screws etc. complete.		
	14.40.1 125x70x4 mm (ordinary type)	each	162.00
	14.40.2 100x70x4 mm (ordinary type)	each	137.55
	14.40.3 75x65x4 mm (heavy type)	each	154.05
	14.40.4 75x40x2.5 mm (ordinary type)	each	89.30
	14.40.5 50x40x2.5 mm (ordinary type)	each	38.00
14.41	Providing and fixing 85x42 mm chromium plated brass pull bolt lock with necessary chromium plated brass screws, nuts, bolts and washers etc. complete.	each	235.00
14.42	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chalies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	sqm	182.63
	Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.		
14.43	Providing and fixing bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc. complete.	kg	473.90
14.44	Providing and fixing 14 mm bright finished brass spring catch to steel centre hung ventilators with necessary welding and machine screws etc. complete.	each	57.30

Code No.	Description	Unit	Rate
14.45	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.	sqm	399.75
ROUTINE MAINTENANCE WORK			
14.46	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)	litre	0.20
14.47	Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge.	each	45.90
14.48	Cleaning of chocked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm	metre	246.70
14.49	Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i) Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits. (ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water.		

Code No.	Description	Unit	Rate
	(iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	sqm	41.85
14.50	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in- charge.	each	181.80
14.51	Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge. 14.51.1 Long pattern W.C Pan of size 580x440 mm 14.51.2 Orissa pattern W.C Pan of size 580x440 mm	each	2110.50
		each	2947.95
14.52	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	each	148.95
14.53	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	each	56.35
14.54	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in- Charge.	sqm	1.55
14.55	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer- in-Charge. (a) Internal Work- Exposed on wall	metre	2.70
14.56	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	171.45

Code No.	Description	Unit	Rate
14.57	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5 mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).	sqm	526.95
14.58	Providing and laying in situ five course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd & 4th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/ sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).	sqm	360.70

Code No.	Description	Unit	Rate
14.59	Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).	sqm	585.85
14.60	Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrane , black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrance manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscoicity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/ 5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacture of membrane.	sqm	348.35
14.60.1	2mm (for corrugated roof sheets)	sqm	348.35

Code No.	Description	Unit	Rate
14.61	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87-0.89 kg/litre and 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 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :		
	14.61.1 3 mm thick	sqm	441.55
14.62	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and 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 authorised applicator of the manufacturer of membrane :		
	14.62.1 3 mm thick	sqm	463.65
14.63	Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	sqm	85.40

Code No.	Description	Unit	Rate
14.64	Providing round the clock security guard without gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete,as per the direction of Engineer-in-charge.(One job means 8 hour's duty).	each job	436.25
14.65	Providing round the clock security guard with gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete, as per the direction of Engineer-in-charge.(One job means 8 hour's duty).	each job	453.70

SUB HEAD : 15.0

DISMANTLING AND DEMOLISHING

Code No.	Description	Unit	Rate
15.1	Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer- in-charge.	cum	350.50
15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.		
15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cum	1004.45
15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	cum	619.05
15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	cum	1465.35
15.4	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.	cum	1308.85
15.5	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer- in-charge.	sqm	501.00
15.6	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	3.95
15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.		
15.7.1	In mud mortar	cum	290.40
15.7.2	In lime mortar with old mughal bricks	cum	732.50
15.7.3	In lime mortar	cum	350.50
15.7.4	In cement mortar	cum	847.95
15.8	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):		

Code No.	Description	Unit	Rate
15.8.1	From brick work in mud mortar	1000 Nos	1922.30
15.8.2	From brick work in lime mortar	1000 Nos	2227.70
15.8.3	From brick work in cement mortar	1000 Nos	2789.15
15.9	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :		
	15.9.1 In lime mortar	cum	477.40
	15.9.2 In cement mortar	cum	1011.75
15.10	Dismantling dressed stone work ashlar face stone work, marble work or precast concrete work manually/ by mechanical means including stacking of serviceable and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :		
	15.10.1 In lime mortar	cum	603.95
	15.10.2 In cement mortar	cum	1183.45
15.11	Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured):		
	15.11.1 In lime mortar	cum	198.15
	15.11.2 In cement mortar	cum	285.05
15.12	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :		
	15.12.1 Of area 3 sq. metres and below	each	156.25
	15.12.2 Of area beyond 3 sq. metres	each	214.85
15.13	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :		
	15.13.1 Of area 3 sq. metres and below	each	60.80
	15.13.2 Of area beyond 3 sq. metres	each	80.45
15.14	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead :		
	15.14.1 Of sectional area 40 square centimetres and above	cum	1896.45

Code No.	Description				Unit	Rate
	15.14.2 Of sectional area below 40 square centimetres		metre			7.60
15.15	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of one metre or part thereof beyond 10 metres :					
	15.15.1 Of sectional area 40 square centimetres and above		cum per metre span			264.80
	15.15.2 Of sectional area below 40 square centimetres		metre per metre span			0.75
15.16	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional height of one metre or part thereof beyond 5 metres :					
	15.16.1 Of sectional area 40 square centimetres and above		cum per metre span			375.70
	15.16.2 Of sectional area below 40 square centimetres		metre per metre span			1.45
15.17	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:					
	15.17.1 R.S. Joists		kg			1.40
	15.17.2 Channels, angles, tees and flats		kg			0.95
15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.		kg			2.35
15.19	Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.		kg			1.60
15.20	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one metre or part thereof beyond 10 metres		kg per metre span			0.35
15.21	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one metre or part thereof beyond 5 metres.		kg per metre span			0.35
15.22	Extra for marking of structural steel work required to be re-erected.		kg			2.15
15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
	15.23.1 For thickness of tiles 10 mm to 25 mm		sqm			31.20
	15.23.2 For thickness of tiles above 25 mm and up to 40 mm		sqm			48.30
15.24	Demolishing dry brick pitching in floors, drains etc. including stacking of serviceable material and disposal of unserviceable material within 50 metres lead :		cum			543.85

Code No.	Description	Unit	Rate
15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	110.35
15.26	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	44.90
15.27	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	cum	376.25
15.28	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:		
	15.28.1 G.S. Sheet	sqm	69.80
	15.28.2 Asbestos cement sheet	sqm	32.90
15.29	Dismantling stone slab roofing over wooden karries or R.C.C. battens (dismantling karries and battens to be paid for separately), including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	cum	1103.30
15.30	Dismantling jack arch roofing and floors including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	105.20
15.31	Dismantling tiled roofing with battens, boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	87.15
15.32	Demolishing thatch roofing including mats, bamboo, jaffari etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	24.15
15.33	Dismantling wooden ballies in posts and struts including stacking within 50metres lead.	metre	8.60
15.34	Dismantling and stacking within 50 metres lead, fencing posts or struts including all earth work and dismantling of concrete etc. in base of:		
	15.34.1 T' or 'L' iron or pipe	each	115.05
	15.34.2 R.C.C.	each	132.80
15.35	Cutting ballies or wooden posts of fencing at the point of projection above the concrete or ground and stacking the same within 50 metres lead.	each	11.15
15.36	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	kg	15.15
15.37	Dismantling wooden trellis work excluding frames but including stacking the serviceable material within 50 metres lead.	sqm	27.20

Code No.	Description	Unit	Rate
15.38	Dismantling expanded metal or I.R.C. fabrics with necessary battens and beading including stacking the serviceable material within 50 metres lead.	sqm	31.90
15.39	Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :		
15.39.1	Up to 10 mm thick	sqm	26.10
15.39.2	Thickness above 10 mm up to 25 mm	sqm	33.30
15.39.3	Thickness above 25 mm up to 40 mm	sqm	39.35
15.40	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :		
15.40.1	Thickness up to 40 mm	sqm	120.90
15.40.2	Thickness above 40 mm up to 75 mm	sqm	181.05
15.41	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	sqm	24.30
15.42	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :		
15.42.1	75 to 80 mm dia pipe	metre	31.15
15.42.2	100 mm dia pipe	metre	32.20
15.42.3	150 mm dia pipe	metre	33.20
15.43	Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :		
15.43.1	Water bound macadam road	sqm	92.50
15.43.2	bituminous road	sqm	179.70
15.44	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :		
15.44.1	15 mm to 40 mm nominal bore	metre	66.25
15.44.2	Above 40 mm nominal bore	metre	75.85
15.45	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:		

Code No.	Description		Unit	Rate
	15.45.1	Up to 150 mm diameter	metre	186.50
	15.45.2	Above 150 mm dia up to 300 mm dia	metre	247.40
	15.45.3	Above 300 mm diameter	metre	321.70
15.46	Dismantling steel cylinder R.C. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metres lead as per direction of Engineer-in-charge :			
	15.46.1	Up to 600 mm diameter	metre	304.85
	15.46.2	Above 600 mm diameter	metre	760.95
15.47	Dismantling asbestos cement pressure pipes including excavation and refilling trenches after taking out the pipes manually/ by mechanical means and stacking the pipes within 50 metres lead as per direction of Engineer-in-charge :			
	15.47.1	Up to 150 mm diameter	metre	136.05
	15.47.2	Above 150 mm diameter	metre	165.40
15.48	Taking out C.I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.		each	297.35
15.49	Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.		each	174.80
15.50	Dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refilling the excavated gap, stacking the useful materials near the site and disposal of unserviceable materials within 50 metres lead.		each	1969.90
15.51	Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead including refilling the excavated gap.		each	404.30
15.52	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.		each	421.85

Code No.	Description	Unit	Rate
15.53	Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres		
15.53.1	Up to 150 mm diameter	each	150.95
15.53.2	Above 150 mm diameter	each	528.75
15.54	Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.	each	317.35
15.55	Dismantling of cement concrete platform along with curtain walls and base concrete etc. including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead :		
15.55.1	120 x 120 cm (outside to outside)	each	454.55
15.55.2	210 x 120 cm (outside to outside)	each	697.35
15.55.3	320 x 120 cm (outside to outside)	each	986.70
15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	22.25
15.57	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material within 50 meters lead as directed by Engineer-in-charge.	sqm	24.35
15.58	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting enforcement bars.	cum	1398.95
15.59	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.	cum	222.05
15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	142.00

SUB HEAD : 16.0

ROAD WORK

Code No.	Description	Unit	Rate
ROADS			
16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	sqm	91.30
16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	cum	11.25
16.3	Supplying and stacking at site.		
16.3.1	90 mm to 45 mm size stone aggregate	cum	1843.50
16.3.2	63 mm to 45 mm size stone aggregate	cum	1539.10
16.3.3	53 mm to 22.4 mm size stone aggregate	cum	1753.20
16.3.4	Over burnt (Jhama) brick aggregate 120 mm to 40 mm	cum	823.30
16.3.5	Over burnt (Jhama) brick aggregate 90 mm to 45 mm	cum	796.55
16.3.6	Stone screening 13.2 mm nominal size (Type A)	cum	1730.80
16.3.7	Stone screening 11.2 mm nominal size (Type B)	cum	1981.65
16.3.8	bajri	cum	1479.95
16.3.9	Good earth	cum	378.65
16.3.10	Moorum	cum	810.95
16.4	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	cum	488.75

Code No.	Description	Unit	Rate
16.5	Laying water bound macadam sub-base with brick aggregate and binding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete.(payment for brick aggregate and moorum etc. to be made separately)		
16.5.1	Over burnt (Jhama) brick aggregate 120 mm to 40 mm	cum	364.20
16.5.2	Over burnt (Jhama) brick aggregate 90 mm to 45 mm	cum	364.20
16.6	Supplying, stacking and Spreading 6 mm thick bajri, watering and rolling complete including preparation of the surface and rolling.		
16.6.1	With road roller/ hand roller	sqm	15.90
16.7	Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres.		
16.7.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	143.95
16.8	Brick edging laid lengthwise with half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres :		
16.8.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	40.90
16.9	Scarifying metalled (water-bound) road surface including disposal of rubbish, lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity.	sqm	16.45
16.10	Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50 mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm bajri consolidated with road roller.	sqm	148.50
16.11	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	sqm	530.45
16.12	Dry brick pitching half brick thick in drains including supply of bricks and preparing the surface complete :		
16.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	sqm	504.65
16.13	Cutting road and making good the same including supply of extra quantities of materials i.e. aggregate, moorum screening, bajri and labour required.		
16.13.1	bituminous portion	cum	2445.35
16.13.2	Water bound macadam	cum	1470.90

Code No.	Description	Unit	Rate
16.14	Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and bajri required.	sqm	136.20
FENCING			
16.15	Supplying at site :		
16.15.1	R.C.C. Standards post/ struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarsesand : 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in- charge (cost of earth works in excavation, concrete works in foundation to be paid separately).	cum	21821.95
16.15.2	Welded steel wire fabric of required width having rectangular mesh painted with two or more coats of enamel paint of approved shade over a coat of primer (Priming & Painting to be paid for separately)	kg	74.35
16.16	Supplying and fixing turn buckles and straining bolts for barbed wire fencing.	each set	197.90
16.17	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.		
16.17.1	With G.I. barbed wire	metre	10.15
16.18	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.		
16.18.1	With G.I. barbed wire	metre	15.95

Code No.	Description	Unit	Rate
16.19	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	kg	80.50
16.20	Welded steel wire fabric fencing with posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x 60 cm of mix 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size), every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50 cm of the same mix, provided with welded steel wire fabric fixed between the posts fitted and fixed with G.I. staples on wooden plugs or tied to 6 mm bar nibs with G.I. binding wire (cost of posts, welded steel wire fabric, painting, earth work in excavation and concrete to be paid for separately).	sqm	33.55
ROAD SIGNS			
16.21	Engraving letters in hard stone	per cm height per letter	5.40
16.22	Providing and fixing 15x15x90 cm boundary stone of hard stone with top 30 cm chisel dressed on all four sides including top (cost of excavation, refilling and concrete etc. to be paid for separately).	each	169.70
16.23	Providing and fixing 15 cm dia at top, 20 cm at bottom and 90 cm high precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) boundary stone as per standard design, including finishing smooth with cement mortar 1:3 (1 cement : 3 fine sand) (cost of excavation, refilling and concreting to be paid for separately).	each	519.85
16.24	Providing and fixing precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) kilometre stone as per standard design, including finishing smooth in 1:3 cement mortar (1 cement : 3 fine sand) but excluding the cost of earth work, concrete in foundation, painting and lettering etc. which shall be paid for separately.	each	1913.799
16.24.1	35x111x25 cm size	each	3571.50
16.24.2	50x152.5x25 cm size	each	1283.25
16.24.3	35x93.5x18 cm size	each	

Code No.	Description	Unit	Rate
SURFACE DRESSING			
16.25	Surface dressing on new surface with paving bitumen of grade VG - 10 of approved quality using 2.25 kg of bitumen per sqm with 1.65 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete:	sqm	144.70
16.26	Surface dressing on new surface in two coats with bitumen of grade VG -10 of approved quality using 1.8 kg of bitumen per sqm with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface for first coat and 1.1 kg. of bitumen per sqm with 1.00 cu. metre of stone chippings 11.2 mm nominal size per 100 sqm of road surface for second coat, including consolidation of each coat separately with road roller of 6 to 8 tonne capacity etc. complete.	sqm	199.40
16.27	Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity, etc. complete.	sqm	116.40
16.28	Surface dressing one coat on new surface with bitumen of specified grade at a rate of 1.95 kg/sqm of surface area with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity , etc. complete :	sqm	137.15
	16.28.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)	sqm	
16.29	Surface dressing one coat on old surface with bitumen of specified grade at the rate of 1.22 kg/ sqm of surface area with 1.10 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete :	sqm	87.50
	16.29.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)	sqm	
PREMIX CARPET			
16.30	Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :		

Code No.	Description	Unit	Rate
16.30.1	On W.B.M. @ 0.75 Kg / sqm	sqm	35.05
16.30.2	On bituminous surface @ 0.50 Kg / sqm	sqm	26.65
16.31	Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributer including preparing the surface & cleaning with mechanical broom.		
16.31.1	With rapid setting bitumen emulsion		
16.31.1.1	On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	11.70
16.31.1.2	On bituminous surface @ 0.25kg/sqm	sqm	7.85
16.31.2	With medium setting bitumen emulsion		
16.31.2.1	On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	16.45
16.31.2.2	On bituminous surface @ 0.25kg/sqm	sqm	10.85
16.32	<p>Note - Use of Item No. 16.31.1 shall be restricted only per site at sub zero temperature or for emergency application</p> <p>2 cm premix carpet surfacing with 1.8 cum and 0.90 cum of stone chippings of 13.2 mm size and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).</p>		
16.32.1	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	144.30
16.32.2	With paving Asphalt grade VG - 30 with no solvent	sqm	170.90
16.32.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53	sqm	155.85
16.33	<p>2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).</p> <p>With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt</p>	sqm	174.60

Code No.	Description	Unit	Rate
16.33.2	With paving Asphalt grade VG - 30 with no solvent	sqm	207.90
16.33.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53	sqm	189.05
16.34	2 cm premix carpet surfacing with 2.4 cum of stone chippings 11.2 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen content) complying with IS : 8887, using 96 kg per cum of chippings, including consolidation with road roller of 6 to 9 tonne capacity etc. complete.	sqm	151.10
16.35	2.5 cm premix carpet surfacing with 3 cum of stone chippings 10 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen contents) complying with IS : 8887, using 96 kg per cum of chippings of road surface, including consolidation with road roller etc complete .	sqm	183.50
16.36	Providing and laying Bitumen Penetration Macadam with hard stone aggregate of quality, size and grading as specified, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/ tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of aggregate spreader complete, including consolidation with road roller of minimum 8 to 10 tonne capacity to achieve specified values of compaction and surface accuracy :		
16.36.1	For 50mm compacted thickness using coarse aggregate of size 50-20 mm graded @ 0.60 cum per 10 sqm key aggregate of size 12.5 mm graded @ 0.15 cum per 10 sqm. With paving asphalt grade VG - 10 @ 50 kg/ 10 sqm.	sqm	358.05
16.36.2	For 75 mm compacted thickness in two layers using stone aggregate of size 63-41 mm graded @ 0.90 cum per 10 sqm key aggregate of size 20.0 mm graded @ 0.18 cum per 10 sqm. With paving asphalt grade VG - 10 @ 68 kg/ 10 sqm.	sqm	512.90

Code No.	Description	Unit	Rate
16.37	Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).		
16.37.1	25 mm thick	sqm	530.95
16.37.2	40 mm thick	sqm	849.50
16.38	2.5 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 1.65 cum per 100 sqm and coarse sand @ 1.65 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :		
16.38.1	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	226.40
16.38.2	With paving Asphalt grade VG - 30	sqm	282.40
16.38.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53	sqm	250.70
16.39	4 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 2.60 cum per 100 sqm and coarse sand @ 2.60 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :		
16.39.1	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	344.45
16.39.2	With paving asphalt grade VG - 30 with no solvent	sqm	433.00
16.39.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53	sqm	382.90

Code No.	Description	Unit	Rate
SEAL COAT			
16.40	Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete.	sqm	63.50
16.41	Providing and laying seal coat over prepared surface of road with bitumen heated in bitumen boiler fitted with the spray set spraying using 98 kg of bitumen of grade VG - 10 and blinding surface with 0.90 cum of stone aggregate of 6.7 mm size (Passing 11.2 mm sieve and retained on 2.36 mm sieve) per 100 sqm of road surface, including rolling and finishing with power road roller all complete.	sqm	84.75
<p>Note: Seal coat items to be operated only with the prior approval of Chief Engineer concerned.</p>			
CONCRETE PAVEMENTS			
16.42	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.	cum	5978.80
16.43	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.	cum	7450.85
16.43.1	Cement concrete prepared with batch mixing machine	cum	7450.85

Code No.	Description	Unit	Rate
16.43.2	Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	cum	7852.25
16.44	Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.	litre	50.85
16.45	Providing and fixing in position pre-moulded joint filler in expansion joints.	per cm depth per cm width per metre length	2.90
16.46	Providing and laying in position bitumen hot sealing compound for expansion joints etc.	per cm depth per cm width per metre length	2.30
16.46.1	Using grade 'A' sealing compound.	per cm depth per cm width per metre length	

PAINTING AREA/RUNWAY MARKING

16.47	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete.		
16.47.1	New work (Two or more coats)	sqm	111.75
16.47.2	Old work (One or more coats)	sqm	70.30
16.48	Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.		
16.48.1	New work (Two or more coats)	sqm	136.70
16.48.2	Old work (One or more coats)	sqm	89.10

MISCELLANEOUS

Code No.	Description	Unit	Rate
16.49	Making bell mouth opening/ entrance of size 100x50x50 cm for drainage pipe under footpath, including providing cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) for shape of bell mouth, including plastering providing and fixing precast R.C.C./ S.F.R.C. slab including plastering with cement mortar 1:3 (1 cement : 3 fine sand) of 6 mm thickness on exposed surface of the slab & bell mouth including centring, shuttering & neat cement punning inside the bell mouth etc. all complete.	each	2023.35
16.50	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degrees to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.	each	172.25
16.51	Preparation of sub-base road pavement with commercial dry lime (slaked), fly ash stabilised soil with a mix of 3% lime, 12% fly ash and 85% local suitable soil by weight, so as to achieve minimum field C.B.R. of 20, including mixing, rolling with road roller curing etc. all complete.		
	16.51.1 Minimum thickness 15 cm	cum	788.65
16.52	Providing and fixing precast lime fly ash concrete blocks 1:2:3:6 (1 lime: 2 fly ash : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including finishing with 10mm thick cement mortar 1:3 (1 cement : 3 coarse sand) in foot paths, including preparation of sub grade with a hand rammer, laying 10 mm thick leveling course of fine sand (Sand) and filling the joints with fine sand.	cum	7728.00

Code No.	Description	Unit	Rate
16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	metre	267.60
16.54	Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifacations and directions of Engineer-in-Charge.		
16.54.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	10034.60
16.54.2	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	9952.25
16.55	Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifacations and directions of Engineer-in-Charge.		

Code No.	Description	Unit	Rate
16.55.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity	cum	7724.95
16.55.2	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	7636.95
16.56	Providing and laying semi- dense Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in- Charge.		
16.56.1	25 mm compacted thickness with bitumen of grade VG- 30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	sqm	250.25
16.56.2	25 mm compacted thickness with bitumen of grade VG- 30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	sqm	248.20
16.57	Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.		
16.57.1	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	10914.40

Code No.	Description	Unit	Rate
16.57.2	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in Batch Type Hot Mix Plant of 100- 120 TPH capacity.	cum	11469.15
16.57.3	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	9636.65
16.57.4	40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	9348.15
16.57.5	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	10830.30
16.57.6	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	11385.10
16.57.7	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	9552.55
16.57.8	40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH	cum	9264.10

Code No.	Description	Unit	Rate
16.59	<p>Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom</p> <p>end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours). Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing, specification and direction of Engineer-in-charge.</p>		
16.59.1	Mandatory/ Regulatory sign boards of 900 mm diametre with support length of 3750 mm	each	5508.15
16.59.2	Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm	each	4072.10
16.60	Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive		

Code No.	Description	Unit	Rate
	by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in- charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment).		
16.60.1	Overhead informative road signage	sqm	5227.20
16.61	Providing Retro-reflective regulatory sign board of size 900 mm dia meter made out of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated lens type retro -reflective sheeting as approved by Engineer-in-charge . Letter, symbols, borders etc. will be as per IRC - 67 with required colour scheme on the boards and with the high intensity grade A. The aluminium sheet to be riveted to M.S. frame of angle iron of size 40x40x4 mm. The boards will be fixed to 1 No. 50x50 mm square post made of M.S. angle 50x50x4 mm, 4 m long welded to the frame with adequate anti-theft arrangement .Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminium sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per direction of Engineer-in-charge.	each	6118.20
16.62	Providing and applying 2.5 mm thick road marking strips (retro- reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	sqm	590.70

Code No.	Description	Unit	Rate
16.63	Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.	sqm	415.15
16.64	Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with Sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.	sqm	150.55
16.65	Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-charge.	each	714.45
16.66	Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deported in layers not exceeding 20 cm in depth, including consolidating and deposited layer by ramming watering etc., disposing of surplus excavated soil as directed with in a lead of 50 mm and lift upto 1.5 m.	each	18.35
16.66.1	All kind of soil		
16.67	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.	sqm	1137.15
16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	sqm	774.05

Code No.	Description	Unit	Rate
16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	7945.40
16.70	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.		
16.70.1	Made of G.I. wire of dia 4 mm	sqm	658.60
16.70.2	Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	sqm	686.70
16.71	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	sqm	771.00
16.72	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.	cum	969.80
16.73	Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).	sqm	286.10
16.74	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :		
16.74.1	Moorum	sqm	68.40
16.74.2	Stone aggregate 20 mm nominal size	sqm	155.45
16.74.3	Stone aggregate 40 mm nominal size	sqm	151.40
16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in- charge. (The panel shuttering work shall be paid for separately).		

Code No.	Description	Unit	Rate
	(Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).		
16.76	Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.	cum	7600.65
16.77	Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1km (by mechanical means).	cum	188.35
16.78	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	sqm	3.95
16.78.1	With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	cum	2506.35
16.78.2	With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBR Value-25	cum	2625.85
16.78.3	With material conforming to Grade-III (size range 26.5 mm to 0.075 mm) having CBR Value-20	cum	2463.15
16.79	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.	cum	2627.15

Code No.	Description	Unit	Rate
16.80	<p>Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer- in- charge.</p>	cum	3864.75
16.81	<p>Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts / horizontal members / bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.</p>		

Code No.	Description	Unit	Rate
(Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property of the contractor on completion of the work).			
16.82	Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	metre	1645.80
16.83	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	metre	16.15
16.84	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).	sqm	54.40
16.85	Laying at or near ground level old kerb stones of all types in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement : 3 coarse sand), including making joints with or without grooves (thickness of joints, except at sharp curve, shall not be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer-in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)	sqm	238.90
16.86	Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.	metre	50.65
16.86.1	With granite stone of area less than 0.50 sqm.	sqm	3263.55

Code No.	Description	Unit	Rate
16.87	Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge. 16.87.1 With granite stone of area less than 0.50 sqm.	sqm	3544.55
16.88	Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi models etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.	sqm	1793.90
16.89	Providing and laying matt finished vitrified tile of size 300x300 x 9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	sqm	1124.95
16.90	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	sqm	1793.90

Code No.	Description	Unit	Rate
16.91	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.		
16.91.1	60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	sqm	799.50
16.91.2	80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.	sqm	867.70
16.92	Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.	sqm	1650.50
16.93	Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways , neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick , 100 mm wide MS sheet duly painted over priming coat , reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.	sqm	2322.80

Code No.	Description	Unit	Rate
16.94	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of $\pm 2\%$) Zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @ 3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per direction of Engineer-in-charge.	cum	3004.05
16.95	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of $\pm 2\%$) Zinic + PVC coated, Mesh wire diameter 2.7 / 3.7mm, mechanically edged / selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in- charge.	cum	3224.80
16.96	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of $\pm 2\%$), Zinic+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer- in-charge.	cum	3739.90

SUB HEAD : 17.0

SANITARY INSTALLATIONS

Code No.	Description	Unit	Rate
17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:		
17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	4490.75
17.1.2	Stainless Steel AISI-304(18/8) Orissa pattern W.C. pan of size 585x480 mm with flush pipe and integrated type foot rests	each	8905.95
17.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :		
17.2.1	W.C. pan with ISI marked white solid plastic seat and lid	each	4330.20
17.2.2	W.C. pan with ISI marked black solid plastic seat and lid	each	4209.80
17.3	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :		
17.3.1	W.C. pan with ISI marked white solid plastic seat and lid	each	5666.60
17.3.2	W.C. pan with ISI marked black solid plastic seat and lid	each	5546.20

Code No.	Description	Unit	Rate
17.4	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :		
17.4.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	each	3889.30
17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	each	5991.50
17.4.3	Range of three urinal basins with 10 litre white P.V.C. automatic flushing cistern	each	8251.20
17.4.4	Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern	each	11276.00
17.5	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :		
17.5.1	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	each	6776.80
17.5.2	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern	each	10188.90
17.5.3	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	12807.80
17.5.4	Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	15281.25
17.6	Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C. automatic flushing cistern, with fittings, standard size G.I. / PVC flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete, including painting of fittings and cutting and making good the walls and floors etc. wherever required :		
17.6.1	Single squatting plate with 5 litre P.V.C. automatic flushing cistern	each	5412.25
17.6.2	Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern	each	8076.25
17.6.3	Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern	each	10767.65

Code No.	Description	Unit	Rate
17.6.4	Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern	each	13133.20
17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:		
17.7.1	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	each	2643.75
17.7.2	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	each	2330.55
17.7.3	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	each	2402.95
17.7.4	White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap	each	2089.70
17.7.5	White Vitreous China Angle back wash basin size 600 x 480 mm with single 15mm C.P. brass pillar tap	each	2330.55
17.7.6	White Vitreous China Angle back wash basin size 400 x 400 mm with single 15 mm C.P. brass pillar tap	each	1929.15
17.7.7	White Vitreous China Flat back wash basin size 450x 300 mm with single 15mm C.P. brass pillar tap	each	1775.30
17.7.8	White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow including operated levers	each	3608.40
17.7.9	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI Marked	each	2996.80
17.7.10	Stainless Steel AISI-304(18/8) Round basin 405x355 mm with single 15 mm C.P. brass pillar tap	each	3367.45
17.7.11	Stainless Steel AISI-304(18/8) Wash basin 530x345 mm with single 15 mm C.P. brass pillar tap	each	4036.40
17.7A	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-		
	(a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer	each	3972.55

Code No.	Description	Unit	Rate
17.7B	Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.	each	1954.70
17.8	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	each	1420.15
17.9	Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required:		
	17.9.1 White glazed fire clay kitchen sink of size 600x450x 250 mm	each	2792.75
17.10	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :		
	17.10.1 17.10.1 Kitchen sink with drain board		
17.10.1.1	17.10.1.1 510x1040 mm bowl depth 250 mm	each	4608.30
17.10.1.2	17.10.1.2 510x1040 mm bowl depth 225 mm	each	5304.05
17.10.1.3	17.10.1.3 510x1040 mm bowl depth 200 mm	each	5036.45
17.10.1.4	17.10.1.4 510x1040 mm bowl depth 178 mm	each	4635.05
17.10.2	17.10.2 Kitchen sink without drain board		
17.10.2.1	17.10.2.1 610x510 mm bowl depth 200 mm	each	3261.05
17.10.2.2	17.10.2.2 610x460 mm bowl depth 200 mm	each	2458.30
17.10.2.3	17.10.2.3 470x420 mm bowl depth 178 mm	each	2257.60
17.11	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :		
17.11.1	Size 450x300x150 mm	each	3752.05
17.11.2	Size 600x450x200 mm	each	5090.00

Code No.	Description	Unit	Rate
17.12	Providing and fixing draining board with C.I. brackets including painting of brackets, cutting and making good the walls wherever required :		
17.12.1	White glazed fire clay draining board of size 600x450x 25 mm	each	1187.35
17.13	Providing and fixing white vitreous china water closet squatting pan (Indian type) :		
17.13.1	Long pattern W.C. pan of size 580 mm	each	1207.15
17.13.2	Orissa pattern W.C. pan of size 580x440 mm	each	2210.60
17.14	Extra for using coloured W.C. pan instead of white W.C. pan :		
17.14.1	Orissa pattern W.C. pan 580x440 mm	each	842.90
17.15	Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.	each	1943.00
17.16	Extra for using coloured pedestal type W.C. pan (European type) with low level cistern of same colour instead of white vitreous china W.C. pan and cistern.	each	260.90
17.16A	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	each	297.55
17.17	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :		
17.17.1	250x130x30 mm	pair	193.55
17.17.2	250x125x25 mm	pair	193.55
17.18	Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.		
17.18.1	10 litre capacity - White	each	916.50
17.18.2	10 litre capacity - coloured	each	887.90
17.19	Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.		
17.19.1	10 litre (full flush) capacity-white	each	1505.80
17.19.2	10 litre (full flush) capacity-coloured	each	2107.85
17.20	Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :		
17.20.1	White solid plastic seat with lid	each	571.00
17.20.2	Black solid plastic seat with lid	each	450.60
17.20.3	Coloured (other than black & white) solid plastic seat with lid	each	557.65
17.22	Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.	each	116.10

Code No.	Description	Unit	Rate
17.22A	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	each	883.05
17.22B	Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge.		
	(a) 15 mm nominal dia	each	6113.60
17.23	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.	each	1045.95
17.24	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.	each	2539.65
17.25	Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :		
17.25.1	Flat back wash basin of size 630x450 mm	each	1139.40
17.25.2	Flat back wash basin of size 550x400 mm	each	898.60
17.25.3	Angle back wash basin of size 600x480 mm	each	1139.40
17.25.4	Angle back wash basin of size 400x400 mm	each	738.05
17.25.5	Flat back wash basin of size 450x300 mm	each	584.15
17.25.6	Surgeon type wash basin of size 660x460 mm	each	1507.35
17.26	Providing and fixing kitchen sink including making all connections excluding cost of fittings.		
17.26.1	White glazed fire clay sink of size 600x450x250 mm	each	1853.65
17.27	Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :		
17.27.1	Size 450x300x150 mm	each	2143.95
17.27.2	Size 600x450x200 mm	each	3481.90
17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.		
17.28.1	17.28.1 Semi rigid pipe		
17.28.1.1	17.28.1.1 32 mm dia	each	87.70
17.28.1.2	17.28.1.2 40 mm dia	each	98.40
17.28.2	17.28.2 Flexible pipe		
17.28.2.1	17.28.2.1 32 mm dia	each	101.10
17.28.2.2	17.28.2.2 40 mm dia	each	101.10
17.29	Providing and fixing 100 mm sand cast Iron grating for gully trap.	each	44.60
17.30	Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.	each	45.00

Code No.	Description	Unit	Rate
17.31	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	1009.90
17.32	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :		
17.32.1	Circular shape 450 mm dia	each	1002.85
17.32.2	Rectangular shape 453x357 mm	each	881.10
17.32.3	Oval shape 450x350 mm (outer dimensions)	each	946.45
17.32.4	Rectangular shape 1500x450 mm	each	1547.40
17.33	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	each	660.60
17.34	Providing and fixing toilet paper holder :		
17.34.1	C.P. brass	each	479.75
17.34.2	Vitreous china	each	322.15
17.35	Providing and fixing soil, waste and vent pipes :		
17.35.1	100 mm dia		
17.35.1.1	Sand cast iron S&S pipe as per IS: 1729	metre	979.80
17.35.1.2	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	metre	1062.95
17.35.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	metre	1024.30
17.35.2	75 mm diameter :		
17.35.2.1	Sand cast iron S&S pipe as per IS: 1729	metre	899.60
17.35.2.2	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	metre	967.70
17.35.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside	metre	836.65
17.36	Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :		
17.36.1	75 mm dia pipe	each	79.25
17.36.2	100 mm dia pipe	each	93.35

Code No.	Description	Unit	Rate
17.37	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :		
17.37.1	For 100 mm dia pipe	each	185.15
17.37.2	For 75 mm dia pipe	each	181.15
17.38	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.		
17.38.1	100 mm dia		
17.38.1.1	Sand cast iron S&S as per IS - 1729	each	461.65
17.38.1.2	Sand cast iron S&S as per IS - 3989	each	461.65
17.38.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	548.60
17.38.2	75 mm dia		
17.38.2.1	Sand cast iron S&S as per IS - 1729	each	371.40
17.38.2.2	Sand cast iron S&S as per IS- 3989	each	384.75
17.38.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	438.30
17.39	Providing and fixing plain bend of required degree.		
17.39.1	100 mm dia		
17.39.1.1	Sand cast iron S&S as per IS - 1729	each	381.35
17.39.1.2	Sand cast iron S&S as per IS : 3989	each	390.75
17.39.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	343.90
17.39.2	75 mm dia		
17.39.2.1	Sand cast iron S&S as per IS -1729	each	309.85
17.39.2.2	Sand cast iron S&S as per IS - 3989	each	289.75
17.39.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	242.95
17.40	Providing and fixing heel rest sanitary bend		
17.40.1	100 mm dia		
17.40.1.1	Sand cast iron S&S as per IS - 1729	each	500.45
17.40.1.2	Sand cast iron S&S as per IS - 3989	each	432.20
17.40.2	75 mm dia		

Code No.	Description	Unit	Rate
17.40.2.1	Sand cast iron S&S as per IS - 1729	each	395.45
17.40.2.2	Sand cast iron S&S as per IS - 3989	each	363.35
17.41	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :		
17.41.1	100x100x100x100 mm		
17.41.1.1	Sand cast iron S&S as per IS - 1729	each	1016.55
17.41.1.2	Sand cast iron S&S as per IS - 3989	each	882.75
17.41.2	75x75x75x75 mm		
17.41.2.1	Sand cast iron S&S as per IS - 1729	each	719.25
17.41.2.2	Sand cast iron S&S as per IS - 3989	each	692.50
17.42	Providing and fixing double equal plain junction of required degree.		
17.42.1	100x100x100x100 mm		
17.42.1.1	Sand cast iron S&S as per IS - 1729	each	825.55
17.42.1.2	Sand cast iron S&S as per IS - 3989	each	865.70
17.42.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	718.55
17.42.2	75x75x75x75 mm		
17.42.2.1	Sand cast iron S&S as per IS - 1729	each	539.95
17.42.2.2	Sand cast iron S&S as per IS - 3989	each	647.00
17.42.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	396.80
17.43	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.		
17.43.1	100x100x100 mm		
17.43.1.1	Sand cast iron S&S as per IS - 1729	each	602.15
17.43.1.2	Sand cast iron S&S as per IS - 3989	each	722.55
17.43.2	75x75x75 mm		
17.43.2.1	Sand cast iron S&S as per IS - 1729	each	478.40
17.43.2.2	Sand cast iron S&S as per IS - 3989	each	549.35
17.44	Providing and fixing single equal plain junction of required degree :		
17.44.1	100x100x100 mm		

Code No.	Description	Unit	Rate
17.44.1.1	Sand cast iron S&S as per IS - 1729	each	517.85
17.44.1.2	Sand cast iron S&S as per IS - 3989	each	667.70
17.44.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	571.35
17.44.2	75x75x75 mm		
17.44.2.1	Sand cast iron S&S as per IS - 1729	each	400.80
17.44.2.2	Sand cast iron S&S as per IS - 3989	each	470.40
17.44.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	316.55
17.45	Providing and fixing double unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete:		
17.45.1	100x100x75x75 mm		
17.45.1.1	Sand cast iron S&S as per IS - 1729	each	996.80
17.45.1.2	Sand cast iron S&S as per IS - 3989	each	1197.50
17.46	Providing and fixing double unequal plain junction of required degree :		
17.46.1	100x100x75x75 mm		
17.46.1.1	Sand cast iron S&S as per IS - 1729	each	859.00
17.46.1.2	Sand cast iron S&S as per IS - 3989	each	1106.55
17.46.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	571.35
17.47	Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :		
17.47.1	100x100x75 mm		
17.47.1.1	Sand cast iron S&S as per IS - 1729	each	796.15
17.47.1.2	Sand cast iron S&S as per IS - 3989	each	916.55
17.48	Providing and fixing single unequal plain junction of required degree :		
17.48.1	100x100x75 mm		
17.48.1.1	Sand cast iron S&S as per IS - 1729	each	697.10
17.48.1.2	Sand cast iron S&S as per IS - 3989	each	798.80
17.48.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	537.90
17.49	Providing and fixing double equal plain invert branch of required degree:		
17.49.1	100x100x100x100 mm		

Code No.	Description		Unit	Rate
17.49.1.1	Sand cast iron S&S as per IS - 1729	each	772.05	
17.49.1.2	Sand cast iron S&S as per IS 3989	each	745.30	
17.49.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	872.40	
17.49.2	75x75x75 mm			
17.49.2.1	Sand cast iron S&S as per IS - 1729	each	577.45	
17.49.2.2	Sand cast iron S&S as per IS - 3989	each	597.50	
17.50	Providing and fixing single equal plain invert branch of required degree :			
17.50.1	100x100x100 mm			
17.50.1.1	Sand cast iron S&S as per iron 1729	each	584.75	
17.50.1.2	Sand cast iron S&S as per IS - 3989	each	604.80	
17.50.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	557.95	
17.50.2	75x75x75 mm			
17.50.2.1	Sand cast iron S&S as per IS - 1729	each	457.00	
17.50.2.2	Sand cast iron S&S as per IS - 3989	each	461.05	
17.50.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	376.75	
17.51	Providing and fixing double unequal invert branch of required degree :			
17.51.1	100x100x75x75 mm			
17.51.1.1	Sand cast iron S&S as per IS - 1729	each	798.80	
17.51.1.2	Sand cast iron S&S as per IS - 3989	each	1006.20	
17.52	Providing and fixing single unequal plain invert branch of required degree :			
17.52.1	100x100x75 mm			
17.52.1.1	Sand cast iron S&S as per IS - 1729	each	698.45	
17.52.1.2	Sand cast iron S&S as per IS - 3989	each	765.35	
17.52.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	611.50	
17.53	Providing and fixing sand cast iron S&S off sets as per IS: 1729			
17.53.1	76 mm off sets			
17.53.1.1	With 75 mm dia pipe	each	320.55	
17.53.1.2	With 100 mm dia pipe	each	514.55	
17.53.2	114 mm off sets			

Code No.	Description	Unit	Rate
17.53.2.1	With 75 mm dia pipe	each	437.55
17.53.2.2	With 100 mm dia pipe	each	548.60
17.53.3	152 mm off sets		
17.53.3.1	With 75 mm dia pipe	each	527.00
17.53.3.2	With 100 mm dia pipe	each	656.75
17.53A	Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905		
	17.53A.1 65 mm offsets		
	17.53A.1.1 With 100 mm dia pipe	each	510.55
	17.53A.1.2 With 75 mm dia pipe	each	423.55
17.54	Providing and fixing sand cast iron S&S off sets as per IS: 3989 :		
	17.54.1 75 mm off sets		
	17.54.1.1 With 75 mm dia pipe	each	329.90
	17.54.2 150 mm off sets		
	17.54.2.1 With 75 mm dia pipe	each	424.45
	17.54.2.2 With 100 mm dia pipe	each	564.95
17.54A	Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905		
	17.54A.1 130 mm offsets		
	17.54A.1.1 With 100 mm dia	each	624.85
	17.54A.1.2 With 75 mm dia	each	443.65
17.55	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts & nuts complete :		
	17.55.1 100 mm		
	17.55.1.1 Sand cast iron S&S as per IS - 1729	each	695.80
	17.55.1.2 Sand cast iron S&S as per IS - 3989	each	595.45
	17.55.2 75 mm		
	17.55.2.1 Sand cast iron S&S as per IS - 1729	each	428.90
	17.55.2.2 Sand cast iron S&S as per IS - 3989	each	444.95
17.56	Providing and fixing terminal guard :		
	17.56.1 100 mm		
	17.56.1.1 Sand cast iron S&S as per IS - 1729	each	355.95
	17.56.1.2 Sand cast iron S&S as per IS - 3989	each	389.40
	17.56.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	397.40
	17.56.2 75 mm		
	17.56.2.1 Sand cast iron S&S as per IS - 1729	each	284.40

Code No.	Description		Unit	Rate
	17.56.2.2	Sand cast iron S&S as per IS - 3989	each	309.85
17.57	Providing and fixing collar :			
	17.57.1	100 mm		
	17.57.1.1	Sand cast iron S&S as per IS - 1729	each	365.30
	17.57.1.2	Sand cast iron S&S as per IS - 3989	each	409.45
	17.57.2	75 mm		
	17.57.2.1	Sand cast iron S&S as per IS - 1729	each	265.70
	17.57.2.2	Sand cast iron S&S as per IS - 3989	each	256.30
17.57A	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe			
	17.57A.1	100 mm dia		
	17.57A.1.1	SS 304 grade coupling with EPDM rubber gasket	each	404.10
	17.57A.2	75 mm dia		
	17.57A.2.1	SS 304 grade coupling with EPDM rubber gasket	each	363.35
17.58	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :			
	17.58.1	100 mm	each	397.90
	17.58.2	75 mm	each	341.45
	17.58.3	50 mm	each	279.25
17.59	Providing and fixing M.S. stays and clamps for sand cast iron/ centrifugally cast (spun) iron pipes of diameter :			
	17.59.1	100 mm	each	126.50
	17.59.2	75 mm	each	78.40
	17.59.3	50 mm	each	72.20
17.60	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :			
	17.60.1	100 mm inlet and 100 mm outlet		
	17.60.1.1	Sand cast iron S&S as per IS: 3989	each	1178.60
	17.60.1.2	Sand Cast Iron S&S as per IS: 1729	each	939.10
	17.60.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	758.65
	17.60.2	100 mm inlet and 75 mm outlet		
	17.60.2.1	Sand cast iron S&S as per IS - 3989	each	1245.50
	17.60.2.2	Sand Cast Iron S&S as per IS- 1729	each	868.20
	17.60.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	551.30

Code No.	Description	Unit	Rate
17.61	Cutting chases in brick masonry walls for following diameter sand cast iron/centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :		
	17.61.1 100 mm dia	metre	388.70
	17.61.2 75 mm dia	metre	278.45
	17.61.3 50 mm dia	metre	178.50
17.62	Painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint over a coat of zinc chromate yellow primer (of approved quality) on the outside surface of the cistern, flush pipe, other fittings, etc. complete for new work.	each	507.65
17.63	Re-painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint on the outside surface of the cistern, flush pipe, other fittings, etc. complete, including polishing of wooden seat and lid and cleaning of W.C. pan with acid wherever necessary.	each	355.55
17.64	Repainting C.I. cistern with synthetic enamel paint of approved colour, brand and manufacture on the outside surface of cistern, flush pipe, other fittings etc. complete.	each	149.15
17.65	Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :		
	17.65.1 100 mm diameter pipe	metre	44.60
	17.65.2 75 mm diameter pipe	metre	34.15
17.66	Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with one coat of synthetic enamel paint of any colour such as chocolate, grey or buff etc :		
	17.66.1 100 mm diameter pipe	metre	21.90
	17.66.2 75 mm diameter pipe	metre	16.45
17.67	Repainting bath tub of size 1700x730x430 mm with enamel paint.	each	449.35

Code No.	Description	Unit	Rate
17.68	Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:		
17.68.1	White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.	each	9005.50
17.69	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.		
17.69.1	Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms	each	99.75
17.69.2	Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms	each	118.50
17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink.		
17.70.1	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	each	335.25
17.70.2	Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms	each	348.60
17.71	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.		
17.72	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	each	158.55
			228.20

Code No.	Description	Unit	Rate
17.73	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.		
17.73.1	450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms	each	415.15
17.73.2	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.	each	455.30
17.74	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms.	each	502.10
17.75	Providing and fixing PTMT 15 mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes, weighing not less than 60 gms.	each	119.75
17.76	Providing and fixing PTMT urinal cock of approved quality and colour.		
17.76.1	15 mm nominal bore, 80 mm long, 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms	each	164.05
17.77	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe.		
17.77.1	Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)	each	213.35
17.77.2	Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)	each	262.05
17.77.3	Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)	each	310.70

Code No.	Description	Unit	Rate
17.78	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	each	12834.05
17.79	Providing & fixing white vitreous china water less urinal of size 600 x 330 x 315 mm having antibacterial /germs free ceramic surface, fixed with cartridge having debris catcher and hygiene seal.	each	16534.25
17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	each	6579.95
17.81	Providing and fixing floor mounted, white vitreous china single piece, double traps siphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	each	14439.55

SUB HEAD : 18.0

WATER SUPPLY

Code No.	Description	Unit	Rate
PE-AL-PE COMPOSITE PRESSURE PIPE			
18.1	Providing and fixing Polyethelene-Aluminium-Polyethelene PE-AL- PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes testing of joints complete as per direction of the Engineer-in-charge.		
INTERNAL WORK - EXPOSED ON WALL			
18.1.1	1216 (16 mm OD) pipe	metre	191.00
18.1.2	1620 (20 mm OD) pipe	metre	226.85
18.1.3	2025 (25 mm OD) pipe	metre	290.50
18.1.4	2532 (32 mm OD) pipe	metre	386.35
18.1.5	3240 (40 mm OD) pipe	metre	553.05
18.1.6	4050 (50 mm OD) pipe	metre	718.30
18.2	Providing and fixing Polyethelene-Aluminium-Polyethelene PE-AL- PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge.		
Concealed work, including cutting chases and making good the wall etc.			
18.2.1	1216 (16 mm OD) pipe	metre	325.30
18.2.2	1620 (20 mm OD) pipe	metre	362.75
18.2.3	2025 (25 mm OD) pipe	metre	437.65
18.2.4	2532 (32 mm OD) pipe	metre	547.70

Code No.	Description	Unit	Rate
18.3	Providing and fixing Polyethelene-Aluminium-Polyethelene PE-AL- PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with trenching, refilling and testing of joints complete as per direction of the engineer in charge.		
External work			
18.3.1	1216 (16 mm OD) pipe	metre	176.45
18.3.2	1620 (20 mm OD) pipe	metre	204.30
18.3.3	2025 (25 mm OD) pipe	metre	259.95
18.3.4	2532 (32 mm OD) pipe	metre	341.70
18.3.5	3240 (40 mm OD) pipe	metre	489.75
18.3.6	4050 (50 mm OD) pipe	metre	655.00
PP-R PIPES			
18.4	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS 15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer-in-Charge.		
Internal Exposed on walls			
18.4.1	PN - 16 Pipe, 20mm OD (SDR-7.4)	metre	166.40
18.4.2	PN - 16 Pipe, 25mm OD (SDR-7.4)	metre	215.35
18.4.3	PN - 16 Pipe, 32mm OD (SDR-7.4)	metre	272.10
18.4.4	PN - 16 Pipe, 40mm OD (SDR-7.4)	metre	392.15
18.4.5	PN - 10 Pipe, 50mm OD (SDR-11)	metre	532.40
18.5	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS:15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer-in-Charge.		

Code No.	Description	Unit	Rate
Concealed work, including cutting chases and making good the wall etc.			
18.5.1	PN - 16 Pipe, 20mm OD (SDR-7.4)	metre	281.45
18.5.2	PN - 16 Pipe, 25mm OD (SDR-7.4)	metre	336.50
18.5.3	PN - 16 Pipe, 32mm OD (SDR-7.4)	metre	395.80
18.6	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS:15801 UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, including trenching, refilling & testing of joints complete as per direction of Engineer-in-Charge.		
External work			
18.6.1	PN - 16 Pipe, 20mm OD (SDR-7.4)	metre	138.10
18.6.2	PN - 16 Pipe, 25 mm OD (SDR-7.4)	metre	182.30
18.6.3	PN - 16 Pipe, 32 mm OD (SDR-7.4)	metre	247.60
18.6.4	PN - 16 Pipe, 40 mm OD (SDR-7.4)	metre	339.60
18.6.5	PN - 10 Pipe, 50 mm OD (SDR-11)	metre	485.95
18.6.6	PN - 10 Pipe, 63 mm OD (SDR-11)	metre	553.25
18.6.7	PN - 10 Pipe, 75 mm OD (SDR-11)	metre	772.30
18.6.8	PN - 10 Pipe, 90 mm OD (SDR-11)	metre	1093.40
18.6.9	PN - 10 Pipe, 110 mm OD (SDR-11)	metre	1556.10
18.6.10	PN - 10 Pipe, 160 mm OD (SDR-11)	metre	4311.85
18.6A	Providing and fixing PPR Unions		
18.6A.1	PPR Union 20mm	each	186.35
18.6A.2	PPR Union 25mm	each	251.90
18.6A.3	PPR Union 32mm	each	305.70
18.6A.4	PPR Union 40mm	each	369.40
18.6A.5	PPR Union 50mm	each	594.15
18.6A.6	PPR Union 63mm	each	769.15
18.6A.7	PPR Union 75mm	each	1370.45

C.P.V.C. PIPES

Code No.	Description	Unit	Rate
18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.		
Internal work - Exposed on wall			
18.7.1	15 mm nominal outer dia Pipes	metre	175.60
18.7.2	20 mm nominal outer dia Pipes	metre	234.50
18.7.3	25 mm nominal outer dia Pipes	metre	296.75
18.7.4	32 mm nominal outer dia Pipes	metre	397.95
18.7.5	40 mm nominal outer dia Pipes	metre	542.10
18.7.6	50 mm nominal outer dia Pipes	metre	797.00
18.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, 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.			
18.8.1	15 mm nominal outer dia Pipes	metre	293.80
18.8.2	20 mm nominal outer dia Pipes	metre	362.30
18.8.3	25 mm nominal outer dia Pipes	metre	446.10
18.8.4	32 mm nominal outer dia Pipes	metre	563.30
18.9	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.		
External work			
18.9.1	15 mm nominal outer dia Pipes	metre	153.05
18.9.2	20 mm nominal outer dia Pipes	metre	203.95
18.9.3	25 mm nominal outer dia Pipes	metre	272.60

Code No.	Description		Unit	Rate
18.9.4	32 mm nominal outer dia Pipes		metre	359.65
18.9.5	40 mm nominal outer dia Pipes		metre	478.80
18.9.6	50 mm nominal outer dia Pipes		metre	733.70
18.9.7	62.50 mm nominal inner dia Pipes		metre	1480.70
18.9.8	75 mm nominal inner dia Pipes		metre	1894.25
18.9.9	100 mm nominal inner dia Pipes		metre	2685.05
18.9.10	150 mm nominal inner dia Pipes		metre	5676.50
18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.			
	Internal work - Exposed on wall			
18.10.1	15 mm dia nominal bore		metre	225.50
18.10.2	20 mm dia nominal bore		metre	278.20
18.10.3	25 mm dia nominal bore		metre	365.55
18.10.4	32 mm dia nominal bore		metre	447.10
18.10.5	40 mm dia nominal bore		metre	533.10
18.10.6	50 mm dia nominal bore		metre	656.35
18.11	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :			
18.11.1	15 mm dia nominal bore		metre	329.10
18.11.2	20 mm dia nominal bore		metre	374.95
18.12	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.			
	External work			
18.12.1	15 mm dia nominal bore		metre	194.40
18.12.2	20 mm dia nominal bore		metre	234.00
18.12.3	25 mm dia nominal bore		metre	310.50
18.12.4	32 mm dia nominal bore		metre	370.65
18.12.5	40 mm dia nominal bore		metre	425.20
18.12.6	50 mm dia nominal bore		metre	507.30
18.12.7	65 mm dia nominal bore		metre	644.45
18.12.8	80 mm dia nominal bore		metre	794.80
18.13	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :			
18.13.1	25 to 40 mm nominal bore		each	453.05

Code No.	Description			Unit	Rate
	18.13.2	50 to 80 mm nominal bore		each	1132.20
18.14	Fixing water meter and stop cock in G.I. pipe line including cutting and threading the pipe and making long screws etc. complete (cost of water meter and stop cock to be paid separately).			each	386.15
BRASS FITTINGS					
18.15	Providing and fixing brass bib cock of approved quality :				
	18.15.1	15 mm nominal bore		each	302.55
	18.15.2	20 mm nominal bore		each	326.45
18.16	Providing and fixing brass stop cock of approved quality :				
	18.16.1	18.16.1 15 mm nominal bore		each	302.55
	18.16.2	18.16.2 20 mm nominal bore		each	326.45
18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
	18.17.1	25 mm nominal bore		each	497.15
	18.17.1A	20 mm nominal bore		each	460.20
	18.17.2	32 mm nominal bore.		each	581.25
	18.17.3	40 mm nominal bore		each	678.40
	18.17.4	50 mm nominal bore		each	869.20
	18.17.5	65 mm nominal bore		each	1488.10
	18.17.6	80 mm nominal bore		each	2217.90
18.18	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
	18.18.1	15 mm nominal bore		each	338.70
	18.18.2	20 mm nominal bore		each	386.40
	18.18.3	25 mm nominal bore		each	394.00
18.19	Providing and fixing gun metal non- return valve of approved quality (screwed end) :				
	18.19.1	25 mm nominal bore			
	18.19.1.1	Horizontal		each	477.70
	18.19.1.2	Vertical		each	504.45
	18.19.2	32 mm nominal bore			
	18.19.2.1	Horizontal		each	641.75
	18.19.2.2	Vertical		each	708.65
	18.19.3	40 mm nominal bore			
	18.19.3.1	Horizontal		each	792.40

Code No.	Description		Unit	Rate
	18.19.3.2	Vertical	each	979.70
	18.19.4	50 mm nominal bore		
	18.19.4.1	Horizontal	each	1144.05
	18.19.4.2	Vertical	each	1251.10
	18.19.5	65 mm nominal bore		
	18.19.5.1	Horizontal	each	2043.95
	18.19.5.2	Vertical	each	2057.35
	18.19.6	80 mm nominal bore		
	18.19.6.1	Horizontal	each	2890.70
	18.19.6.2	Vertical	each	3399.10
18.20	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :			
	18.20.1	15 mm nominal bore	each	295.15
	18.20.2	20 mm nominal bore	each	340.35
	18.20.3	25 mm nominal bore	each	438.35
18.21	Providing and fixing uplasticised PVC connection pipe with brass unions :			
	18.21.1	30 cm length		
	18.21.1.1	15 mm nominal bore	each	72.85
	18.21.1.2	20 mm nominal bore	each	79.55
	18.21.2	45 cm length		
	18.21.2.1	15 mm nominal bore	each	83.00
	18.21.2.2	20 mm nominal bore	each	100.40
18.22	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :			
	18.22.1	100 mm diameter	each	151.90
	18.22.2	150 mm diameter	each	188.80
C.I./DUCTILE IRON PIPES & SPECIALS				
18.23	Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe).		quintal	157.10
18.24	Laying in position S&S or flanged C.I. special such as tees, bends, collars, tapers and caps etc.(excluding cost of specials).		quintal	296.40
18.25	Providing and laying S&S C.I. standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class):			
	18.25.1	Up to 300 mm dia	quintal	5125.60
	18.25.2	Over 300 mm dia	quintal	5259.40

Code No.	Description	Unit	Rate
18.26	Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :		
	18.26.1 Up to 300 mm dia	quintal	7667.70
	18.26.2 Over 300 mm dia	quintal	7667.70
18.27	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 :		
	18.27.1 100 mm dia pipe	metre	1180.80
	18.27.2 125 mm dia pipe	metre	1472.25
	18.27.3 150 mm dia pipe	metre	1776.35
	18.27.4 200 mm dia pipe	metre	3012.50
	18.27.5 250 mm dia pipe	metre	3934.20
	18.27.6 300 mm dia pipe	metre	5303.70
	18.27.7 350 mm dia pipe	metre	6362.60
	18.27.8 400 mm dia pipe	metre	8380.10
	18.27.9 450 mm dia pipe	metre	10147.50
	18.27.10 500 mm dia pipe	metre	11780.15
	18.27.11 600 mm dia pipe	metre	16471.05
18.28	Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead :		
	18.28.1 100 mm diameter pipe	each	235.50
	18.28.2 125 mm diameter pipe	each	347.75
	18.28.3 150 mm diameter pipe	each	353.80
	18.28.4 200 mm diameter pipe	each	469.15
	18.28.5 250 mm diameter pipe	each	586.35
	18.28.6 300 mm diameter pipe	each	706.25
	18.28.7 350 mm diameter pipe	each	726.95
	18.28.8 400 mm diameter pipe	each	948.75
	18.28.9 450 mm diameter pipe	each	1064.00
	18.28.10 500 mm diameter pipe	each	1126.00
	18.28.11 600 mm diameter pipe	each	1518.85
18.29	Supplying pig lead at site of work.	quintal	23560.30
18.30	Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints :		
	18.30.1 80 mm diameter pipe	each	132.40
	18.30.2 100 mm diameter pipe	each	214.30
	18.30.3 125 mm diameter pipe	each	227.70
	18.30.4 150 mm diameter pipe	each	269.80
	18.30.5 200 mm diameter pipe	each	297.90
	18.30.6 250 mm diameter pipe	each	413.15

Code No.	Description		Unit	Rate
	18.30.7	300 mm diameter pipe	each	419.85
	18.30.8	350 mm diameter pipe	each	574.95
	18.30.9	400 mm diameter pipe	each	820.50
	18.30.10	450 mm diameter pipe	each	1015.75
	18.30.11	500 mm diameter pipe	each	1156.85
	18.30.12	600 mm diameter pipe	each	1357.80

C.I. SLUICE VALVES/ FIRE HYDRANTS & FIXTURES

18.31 Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :

18.31.1	100 mm diameter			
18.31.1.1	Class I	each	3789.90	
18.31.1.2	Class II	each	4214.95	
18.31.2	125 mm diameter			
18.31.2.1	Class I	each	4108.00	
18.31.2.2	Class II	each	4947.80	
18.31.3	150 mm diameter			
18.31.3.1	Class I	each	5580.15	
18.31.3.2	Class II	each	6158.65	
18.31.4	200 mm diameter			
18.31.4.1	Class I	each	11005.85	
18.31.4.2	Class II	each	12968.45	
18.31.5	250 mm diameter			
18.31.5.1	Class I	each	16072.80	
18.31.5.2	Class II	each	20936.85	
18.31.6	300 mm diameter			
18.31.6.1	Class I	each	22326.75	
18.31.6.2	Class II	each	26127.70	

Code No.	Description	Unit	Rate
18.32	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design : 18.32.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	1304.65
18.33	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : 18.33.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	7667.20
18.34	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : 18.34.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	13212.45

Code No.	Description	Unit	Rate
18.35	Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		
	18.35.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	18227.75
18.36	Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		
	18.36.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	7305.50
18.37	Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		
	18.37.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	6906.70
18.38	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :		
	18.38.1 15 mm diameter pipe	metre	11.40

Code No.	Description		Unit	Rate
	18.38.2	20 mm diameter pipe	metre	13.40
	18.38.3	25 mm diameter pipe	metre	17.70
	18.38.4	32 mm diameter pipe	metre	20.85
	18.38.5	40 mm diameter pipe	metre	24.80
	18.38.6	50 mm diameter pipe	metre	29.10
18.39	Repainting G.I. pipes and fittings with synthetic enamel white paint with one coat of approved quality :			
	18.39.1	15 mm diameter pipe	metre	5.80
	18.39.2	20 mm diameter pipe	metre	6.70
	18.39.3	25 mm diameter pipe	metre	8.60
	18.39.4	32 mm diameter pipe	metre	10.10
	18.39.5	40 mm diameter pipe	metre	11.80
	18.39.6	50 mm diameter pipe	metre	13.80
18.40	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :			
	18.40.1	15 mm diameter pipe	metre	6.65
	18.40.2	20 mm diameter pipe	metre	7.80
	18.40.3	25 mm diameter pipe	metre	10.00
	18.40.4	32 mm diameter pipe	metre	11.80
	18.40.5	40 mm diameter pipe	metre	13.45
	18.40.6	50 mm diameter pipe	metre	15.95
	18.40.7	65 mm diameter pipe	metre	19.60
	18.40.8	80 mm diameter pipe	metre	22.65
18.41	Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :			
	18.41.1	15 mm diameter pipe	metre	138.15
	18.41.2	20 mm diameter pipe	metre	140.00
	18.41.3	25 mm diameter pipe	metre	143.75
	18.41.4	32 mm diameter pipe	metre	147.50
	18.41.5	40 mm diameter pipe	metre	149.35
	18.41.6	50 mm diameter pipe	metre	154.95
	18.41.7	65 mm diameter pipe	metre	244.55
	18.41.8	80 mm diameter pipe	metre	252.00
	18.41.9	100 mm diameter pipe	metre	266.95
	18.41.10	150 mm diameter pipe	metre	397.65

Code No.	Description	Unit	Rate
18.42	Boring with 100 mm diameter casing pipe for hand pump / tubewell, in all soils except ordinary hard rocks requiring blasting, including removing the casing pipe after the hand pump / tube well is lowered and tested :		
18.42.1	Up to 6 metres depth	metre	366.30
18.42.2	Beyond 6 m and up to 12 m depth	metre	434.90
18.42.3	Beyond 12 m and up to 18 m depth	metre	506.20
18.43	Providing and placing in position filters of 40 mm diameter G.I. pipe with brass strainer of approved quality.	metre	692.85
18.44	Providing and fixing to filter and lowering to proper levels 40 mm G.I. pipe for tube well including cleaning and priming the tube well.	metre	398.60
18.45	Providing and placing in position hand pump of approved quality for 40 mm diameter G.I. pipe complete with all accessories.	each	1051.05
18.46	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :		
18.46.1	15 mm nominal bore	each	162.30
18.46.2	20 mm nominal bore	each	187.70
18.46.3	25 mm nominal bore	each	266.65
18.46.4	32 mm nominal bore	each	310.80
18.46.5	40 mm nominal bore	each	379.05
18.46.6	50 mm nominal bore	each	497.95
18.46.7	65 mm nominal bore	each	839.10
18.46.8	80 mm nominal bore	each	918.05
18.47	Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation, refilling the earth or cutting of wall and making good the same complete wherever required		
18.47.1	15 mm nominal bore	each	396.80
18.47.2	20 mm nominal bore	each	422.25
18.47.3	25 mm nominal bore	each	501.20
18.47.4	32 mm nominal bore	each	545.35
18.47.5	40 mm nominal bore	each	613.55
18.47.6	50 mm nominal bore	each	817.75
18.47.7	65 mm nominal bore	each	1158.95
18.47.8	80 mm nominal bore	each	1237.90

Code No.	Description	Unit	Rate
18.48	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	per litre	8.80
18.48A	Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.	per litre	8.80
C.P. BRASS FITTINGS			
18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :		
	18.49.1 15 mm nominal bore	each	418.95
18.50	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.		
	18.50.1 15 mm nominal bore	each	618.80
18.51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.		
	18.51.1 15 mm nominal bore	each	552.35
18.52	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.		
	18.52.1 15 mm nominal bore	each	606.25
18.53	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931		
	18.53.1 15mm nominal bore	each	532.00
18.53A	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.		
		each	61.25
PTMT FITTINGS			
18.54	Providing and fixing PTMT bib cock of approved quality and colour.		
	18.54.1 15mm nominal bore, 86 mm long, weighing not less than 88 gms	each	116.55
	18.54.2 15 mm nominal bore, 122mm long, weighing not less than 99 gms	each	162.05
	18.54.3 15 mm nominal bore, 165 mm long, weighing not less than 110 gms	each	176.75

Code No.	Description		Unit	Rate
	18.54.4	15 mm nominal bore, 90 mm long, weighing not less than 93 gms	each	228.30
18.55	Providing and fixing PTMT stop cock of approved quality and colour.			
	18.55.1	15 mm nominal bore, 86 mm long, weighing not less than 88 gms	each	116.55
	18.55.2	20 mm nominal bore, 89 mm long, weighing not less than 88 gms	each	151.35
	18.55.3	Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms	each	200.20
18.56	Providing and fixing PTMT pillar cock of approved quality and colour.			
	18.56.1	15 mm nominal bore, 107 mm long, weighing not less than 110 gms	each	192.65
	18.56.2	15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	each	210.05
18.57	Providing and fixing PTMT, push cock of approved quality and colour.			
	18.57.1	15 mm nominal bore, 98 mm long, weighing not less than 75 gms	each	104.50
	18.57.2	15 mm nominal bore, 80 mm long, weighing not less than 46 gms	each	97.85
18.58	Providing and fixing PTMT grating of approved quality and colour.			
	18.58.1	Circular type		
	18.58.1.1	100 mm nominal dia	each	37.90
	18.58.1.2	125 mm nominal dia with 25 mm waste hole	each	51.25
	18.58.2	Rectangular type with openable circular lid		
	18.58.2.1	150 mm nominal size square 100 mm diameter of the inner hinged round grating	each	169.00
AIR VALVE & WATER METER (BULK TYPE)				
18.59	Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :			
	18.59.1	50 mm dia	each	5120.25
	18.59.2	80 mm dia	each	6203.95
	18.59.3	100 mm dia	each	8142.40
18.60	Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) :			

Code No.	Description		Unit	Rate
	18.60.1	80 mm dia nominal bore	each	3502.60
	18.60.2	100 mm dia nominal bore	each	5190.30
	18.60.3	150 mm dia nominal bore	each	7610.60
	18.60.4	200 mm dia nominal bore	each	8314.35
18.61	Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS : 2373 :			
	18.61.1	80 mm dia	each	4024.40
	18.61.2	100 mm dia	each	6484.10
	18.61.3	150 mm dia	each	8230.05
	18.61.4	200 mm dia	each	11529.40
18.62	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.			
	18.62.1	15 mm nominal bore, 105 mm long, weighing not less than 138 gms	each	191.55
	18.62.2	20 mm nominal bore, 120 mm long, weighing not less than 198 gms	each	252.65
	18.62.3	25 mm nominal bore, 152mm long, weighing not less than 440 gms	each	474.25
	18.62.4	40 mm nominal bore, 206mm long, weighing not less than 690 gms	each	728.50
	18.62.5	50 mm nominal bore, 242mm long, weighing not less than 1240 gms	each	1250.30
18.63	Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms		each	155.35
18.64	Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms		each	111.75
18.65	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.		each	130.50
18.66	Providing and laying S&S C.I. Standard specials such as tees, bends, collars tapers and caps etc, suitable for flanged jointing as per IS : 1538 :			
	18.66.1	Up to 300 mm dia	quintal	7252.90
	18.66.2	Above 300 mm dia	quintal	8604.25
18.67	Providing and laying S&S C.I. Standard specials suitable for mechanical jointing as per IS : 13382 :			
	18.67.1	Up to 300 mm dia	quintal	11776.50
	18.67.2	Above 300 mm dia	quintal	12414.70
18.68	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523 :			

Code No.	Description		Unit	Rate
	18.68.1	Up to 600 mm dia	quintal	16899.45
	18.68.2	Above 600 mm dia	quintal	23321.55
18.69	Providing and laying D.I. Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523 :			
	18.69.1	Up to 600 mm dia	quintal	17769.10
	18.69.2	Above 600 mm dia	quintal	25395.35
18.70	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :			
	18.70.1	100 mm dia pipes	joint	70.15
	18.70.2	150 mm dia pipes	joint	108.05
	18.70.3	200 mm dia pipes	joint	164.15
	18.70.4	250 mm dia pipes	joint	198.85
	18.70.5	300 mm dia pipes	joint	266.95
	18.70.6	350 mm dia pipes	joint	288.35
	18.70.7	400 mm dia pipes	joint	467.45
	18.70.8	450 mm dia pipes	joint	540.90
	18.70.9	500 mm dia pipes	joint	577.65
	18.70.10	600 mm dia pipes	joint	747.90
	18.70.11	650 mm dia pipes	joint	1043.30
	18.70.12	700 mm dia pipes	joint	1190.50
	18.70.13	800 mm dia pipes	joint	1309.40
	18.70.14	900 mm dia pipes	joint	1683.70
	18.70.15	1000 mm dia pipes	joint	1971.15
18.71	Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536) :			
	18.71.1	100 mm dia C.I. Double Flanged Pipe	metre	1798.20
	18.71.2	150 mm dia C.I. Double Flanged Pipe	metre	2814.70
	18.71.3	200 mm dia C.I. Double Flanged Pipe	metre	4440.55
	18.71.4	250 mm dia C.I. Double Flanged Pipe	metre	5370.75
	18.71.5	300 mm dia C.I. Double Flanged Pipe	metre	6863.90
	18.71.6	350 mm dia C.I. Double Flanged Pipe	metre	8644.30
	18.71.7	400 mm dia C.I. Double Flanged Pipe	metre	11185.10
	18.71.8	450 mm dia C.I. Double Flanged Pipe	metre	14240.35
	18.71.9	500 mm dia C.I. Double Flanged Pipe	metre	17681.50
	18.71.10	600 mm dia C.I. Double Flanged Pipe	metre	24503.00

Code No.	Description	Unit	Rate
18.72	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :		
18.72.1	100 mm dia Ductile Iron Class K-7 pipes	metre	1097.65
18.72.2	150 mm dia Ductile Iron Class K-7 pipes	metre	1566.25
18.72.3	200 mm dia Ductile Iron Class K-7 pipes	metre	1928.80
18.72.4	250 mm dia Ductile Iron Class K-7 pipes	metre	2482.00
18.72.5	300 mm dia Ductile Iron Class K-7 pipes	metre	3101.15
18.72.6	350 mm dia Ductile Iron Class K-7 pipes	metre	3669.90
18.72.7	400 mm dia Ductile Iron Class K-7 pipes	metre	4399.20
18.72.8	450 mm dia Ductile Iron Class K-7 pipes	metre	5331.80
18.72.9	500 mm dia Ductile Iron Class K-7 pipes	metre	6022.00
18.72.10	600 mm dia Ductile Iron Class K-7 pipes	metre	7761.90
18.72.11	700 mm dia Ductile Iron Class K-7 pipes	metre	10115.45
18.72.12	800 mm dia Ductile Iron Class K-7 pipes	metre	12609.50
18.72.13	900 mm dia Ductile Iron Class K-7 pipes	metre	16309.35
18.72.14	1000 mm dia Ductile Iron Class K-7 pipes	metre	17107.10
18.72.15	100 mm dia Ductile Iron Class K-9 pipes	metre	1054.55
18.72.16	150 mm dia Ductile Iron Class K-9 pipes	metre	1585.05
18.72.17	200 mm dia Ductile Iron Class K-9 pipes	metre	2172.45
18.72.18	250 mm dia Ductile Iron Class K-9 pipes	metre	3030.85
18.72.19	300 mm dia Ductile Iron Class K-9 pipes	metre	3789.15
18.72.20	350 mm dia Ductile Iron Class K-9 pipes	metre	4628.05
18.72.21	400 mm dia Ductile Iron Class K-9 pipes	metre	5930.30
18.72.22	450 mm dia Ductile Iron Class K-9 pipes	metre	6898.50
18.72.23	500 mm dia Ductile Iron Class K-9 pipes	metre	8626.75
18.72.24	600 mm dia Ductile Iron Class K-9 pipes	metre	10431.55
18.72.25	700 mm dia Ductile Iron Class K-9 pipes	metre	14424.60
18.72.26	750 mm dia Ductile Iron Class K-9 pipes	metre	15644.30
18.72.27	800 mm dia Ductile Iron Class K-9 pipes	metre	15842.45
18.72.28	900 mm dia Ductile Iron Class K-9 pipes	metre	19205.55

Code No.	Description		Unit	Rate
	18.72.29	1000 mm dia Ductile Iron Class K-9 pipes	metre	21505.65
18.73	Providing and laying Double Flanged (Screwed/ Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS : 8329 :			
18.73.1	100 mm dia Ductile Iron Double Flanged	metre	1509.10	
18.73.2	150 mm dia Ductile Iron Double Flanged	metre	2264.00	
18.73.3	200 mm dia Ductile Iron Double Flanged	metre	2854.05	
18.73.4	250 mm dia Ductile Iron Double Flanged	metre	4052.20	
18.73.5	300 mm dia Ductile Iron Double Flanged	metre	5205.60	
18.73.6	350 mm dia Ductile Iron Double Flanged	metre	6559.60	
18.73.7	400 mm dia Ductile Iron Double Flanged	metre	8426.20	
18.73.8	450 mm dia Ductile Iron Double Flanged	metre	8868.95	
18.73.9	500 mm dia Ductile Iron Double Flanged	metre	12549.25	
18.73.10	600 mm dia Ductile Iron Double Flanged	metre	16620.30	
18.73.11	700 mm dia Ductile Iron Double Flanged	metre	19661.25	
18.74	Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.			
18.74.1	15 mm nominal bore with 30cm length	each	94.90	
18.74.2	15 mm nominal bore with 45 cm length	each	112.45	
18.75	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.			
18.75.1	15 mm nominal bore, weighing not less than 32 gms	each	49.20	
18.75.2	20 mm nominal bore, weighing not less than 40 gms	each	81.30	
18.75.3	25mm nominal bore, weighing not less than 62 gms	each	113.40	
18.76	Cutting holes up to 30x30 cm in walls including making good the same:			
18.76.1	With common burnt clay F.P.S. (non modular) bricks	each	234.25	
18.77	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.			
		each	227.00	

Code No.	Description	Unit	Rate
18.78	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	metre	97.70
18.79	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) including disposal of malba.	metre	148.30
18.80	Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.		
	18.80.1 80 mm diameter C.I. pipe	100 metre	818.20
	18.80.2 100 mm diameter C.I. pipe	100 metre	1081.10
	18.80.3 125 mm diameter C.I. pipe	100 metre	1357.30
	18.80.4 150 mm diameter C.I. pipe	100 metre	1635.75
	18.80.5 200 mm diameter C.I. pipe	100 metre	2196.05
	18.80.6 250 mm diameter C.I. pipe	100 metre	2778.20
	18.80.7 300 mm diameter C.I. pipe	100 metre	3109.95
	18.80.8 350 mm diameter C.I. pipe	100 metre	3455.45
	18.80.9 400 mm diameter C.I. pipe	100 metre	3824.05
	18.80.10 450 mm diameter C.I. pipe	100 metre	4199.85
	18.80.11 500 mm diameter C.I. pipe	100 metre	4599.25
	18.80.12 600 mm diameter C.I. pipe	100 metre	5417.55
18.81	Extra for every operation of disinfecting the C.I. main by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, including getting the samples of water tested in the municipal laboratory :		
	18.81.1 80 mm diameter C.I. pipe	100 metre	299.45
	18.81.2 100 mm diameter C.I. pipe	100 metre	368.05
	18.81.3 125 mm diameter C.I. pipe	100 metre	452.45
	18.81.4 150 mm diameter C.I. pipe	100 metre	530.40
	18.81.5 200 mm diameter C.I. pipe	100 metre	820.65

Code No.	Description		Unit	Rate
	18.81.6	250 mm diameter C.I. pipe	100 metre	943.35
	18.81.7	300 mm diameter C.I. pipe	100 metre	1060.60
	18.81.8	350 mm diameter C.I. pipe	100 metre	1248.40
	18.81.9	400 mm diameter C.I. pipe	100 metre	1438.95
	18.81.10	450 mm diameter C.I. pipe	100 metre	1636.70
	18.81.11	500 mm diameter C.I. pipe	100 metre	1836.55
	18.81.12	600 mm diameter C.I. pipe	100 metre	2246.50
18.82	Dismantling old C.I. pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks, including stacking of pipes at site lead up to 50 metre:			
	18.82.1	80 mm diameter C.I. pipe	metre	179.15
	18.82.2	100 mm diameter C.I. pipe	metre	186.60
	18.82.3	125 mm diameter C.I. pipe	metre	193.75
	18.82.4	150 mm diameter C.I. pipe	metre	201.25
	18.82.5	200 mm diameter C.I. pipe	metre	224.40
	18.82.6	250 mm diameter C.I. pipe	metre	247.30
	18.82.7	300 mm diameter C.I. pipe	metre	267.45
	18.82.8	350 mm diameter C.I. pipe	metre	286.20
	18.82.9	400 mm diameter C.I. pipe	metre	303.70
	18.82.10	450 mm diameter C.I. pipe	metre	321.70
	18.82.11	500 mm diameter C.I. pipe	metre	337.50
	18.82.12	600 mm diameter C.I. pipe	metre	365.30
18.83	Labour for cutting C.I. pipe with steel saw.			
	18.83.1	80 mm diameter C.I. pipe	each cut	68.85
	18.83.2	100 mm diameter C.I. pipe	each cut	92.60
	18.83.3	125 mm diameter C.I. pipe	each cut	129.10
	18.83.4	150 mm diameter C.I. pipe	each cut	174.20
	18.83.5	200 mm diameter C.I. pipe	each cut	232.35
	18.83.6	250 mm diameter C.I. pipe	each cut	288.10
	18.83.7	300 mm diameter C.I. pipe	each cut	346.25
	18.83.8	350 mm diameter C.I. pipe	each cut	402.00

Code No.	Description		Unit	Rate
	18.83.9	400 mm diameter C.I. pipe	each cut	459.85
	18.83.10	450 mm diameter C.I. pipe	each cut	515.95
	18.83.11	500 mm diameter C.I. pipe	each cut	573.75
	18.83.12	600 mm diameter C.I. pipe	each cut	682.80
18.84	Providing & fixing chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.	18.84.1 15 mm nominal bore	each	7781.60
18.85	Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)	Internal work - Exposed on wall		
	18.85.1	15.88 mm outer dia pipe	metre	265.80
	18.85.2	22.22 mm outer dia Pipe	metre	424.60
	18.85.3	28.58 mm outer dia Pipe	metre	500.85
	18.85.4	34.00 mm outer dia Pipe	metre	677.90
	18.85.5	42.70 mm outer dia Pipe	metre	703.55
	18.85.6	48.60 mm outer dia Pipe	metre	940.95
18.86	Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment)	Internal work - Concealed Pipe		
	18.86.1	15.88 mm outer dia .Pipes.	metre	362.80
	18.86.2	22.22 mm Outer dia pipes	metre	521.55
18.87	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.			

Code No.	Description	Unit	Rate
Coupling/Socket			
18.87.1	For 15.88 mm outer dia pipe	each	78.95
18.87.2	For 22.22 mm outer dia pipe	each	84.30
18.87.3	For 28.58 mm outer dia pipe	each	119.10
18.87.4	For 34.00 mm outer dia pipe	each	175.25
18.87.5	For 42.70 mm outer dia pipe	each	211.40
18.87.6	For 48.60 mm outer dia pipe	each	240.85
18.88	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
Reducer			
18.88.1	For 22.22 mm x 15.88 mm outer dia pipe	each	137.80
18.88.2	For 28.58 mm x 15.88 mm outer dia pipe	each	188.65
18.88.3	For 28.58 mm x 22.22 mm outer dia pipe	each	194.00
18.88.4	For 34.00 mm x 15.88 mm outer dia pipe	each	246.20
18.88.5	For 34.00 mm x 22.22 mm outer dia pipe	each	250.20
18.88.6	For 34.00 mm x 28.58 mm outer dia pipe	each	254.20
18.88.7	For 42.70 mm x 15.88 mm outer dia pipe	each	480.30
18.88.8	For 42.70 mm x 22.22 mm outer dia pipe	each	484.35
18.88.9	For 42.70 mm x 28.58 mm outer dia pipe	each	484.35
18.88.10	For 42.70 mm x 34.00 mm outer dia pipe	each	517.80
18.88.11	For 48.60 mm x 15.88 mm outer dia pipe	each	548.55
18.88.12	For 48.60 mm x 22.22 mm outer dia pipe	each	548.55
18.88.13	For 48.60 mm x 28.58 mm outer dia pipe	each	548.55
18.88.14	For 48.60 mm x 34.00 mm outer dia pipe	each	548.55
18.88.15	For 48.60 mm x 42.70 mm outer dia pipe	each	548.55

Code No.	Description	Unit	Rate
18.89	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Slip Coupling/ Socket		
18.89.1	For 15.88 mm outer dia pipe	each	62.90
18.89.2	For 22.22 mm outer dia pipe	each	84.30
18.89.3	For 28.58 mm outer dia pipe	each	119.10
18.89.4	For 34.00 mm outer dia pipe	each	175.25
18.89.5	For 42.70 mm outer dia pipe	each	211.40
18.89.6	For 48.60 mm outer dia pipe	each	227.45
18.90	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Elbow 90°		
18.90.1	For 15.88mm outer dia pipe	each	77.60
18.90.2	For 22.22 mm outer dia pipe	each	84.30
18.90.3	For 28.58 mm outer dia pipe	each	128.45
18.90.4	For 34.00 mm outer dia pipe	each	145.85
18.90.5	For 42.70 mm outer dia pipe	each	155.20
18.90.6	For 48.60 mm outer dia pipe	each	200.70
18.91	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Reducing Elbow 90°		
18.91.1	For 22.22 mm x 15.88 mm outer dia pipe	each	198.00
18.91.2	For 28.58 mm x 15.88 mm outer dia pipe	each	255.55
18.91.3	For 28.58 mm x 22.22 mm outer dia pipe	each	295.70
18.91.4	For 34.00 mm x 22.22 mm outer dia pipe	each	384.00
18.91.5	For 34.00 mm x 28.58 mm outer dia pipe	each	461.60

Code No.	Description	Unit	Rate
18.91.6	For 42.70 mm x 34.00 mm outer dia pipe	each	239.50
18.92	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Equal Tee		
18.92.1	For 15.88 mm outer dia pipe	each	212.75
18.92.2	For 22.22 mm outer dia pipe	each	309.05
18.92.3	For 28.58 mm outer dia pipe	each	365.25
18.92.4	For 34.00 mm outer dia pipe	each	584.70
18.92.5	For 42.70 mm outer dia pipe	each	913.80
18.92.6	For 48.60 mm outer dia pipe	each	1186.75
18.93	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Reducing Tee		
18.93.1	For 22.22 mm x 15.88 mm outer dia pipe	each	239.50
18.93.2	For 28.58 mm x 15.88 mm outer dia pipe	each	365.25
18.93.3	For 28.58 mm x 22.22 mm outer dia pipe	each	365.25
18.93.4	For 34.00 mm x 15.88 mm outer dia pipe	each	584.70
18.93.5	For 34.00 mm x 22.22 mm outer dia pipe	each	584.70
18.93.6	For 34.00 mm x 28.58 mm outer dia pipe	each	584.70
18.93.7	For 42.70 mm x 15.88 mm outer dia pipe	each	913.80
18.93.8	For 42.70 mm x 22.22 mm outer dia pipe	each	913.80
18.93.9	For 42.70 mm x 28.58 mm outer dia pipe	each	913.80
18.93.10	For 42.70 mm x 34.00 mm outer dia pipe	each	913.80
18.93.11	For 48.60 mm x 15.88 mm outer dia pipe	each	1186.75
18.93.12	For 48.60 mm x 22.22 mm outer dia pipe	each	1186.75
18.93.13	For 48.60 mm x 28.58 mm outer dia pipe	each	1186.75
18.93.14	For 48.60 mm x 34.00 mm outer dia pipe	each	1186.75
18.93.15	For 48.60 mm x 42.70 mm outer dia pipe	each	1186.75

Code No.	Description	Unit	Rate
18.94	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Male Thread Tee		
18.94.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	239.50
18.94.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	267.60
18.94.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	274.30
18.94.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	365.25
18.94.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	365.25
18.94.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	365.25
18.94.7	For 34.00 mm outer dia x 15 mm nominal dia threaded	each	584.70
18.94.8	For 34.00 mm outer dia x 20 mm nominal dia threaded	each	584.70
18.94.9	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	584.70
18.94.10	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	584.70
18.94.11	For 42.70 mm outer dia x 15 mm nominal dia threaded	each	913.80
18.94.12	For 42.70 mm outer dia x 20 mm nominal dia threaded	each	913.80
18.94.13	For 42.70 mm outer dia x 25 mm nominal dia threaded	each	913.80
18.94.14	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	913.80
18.94.15	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.94.16	For 48.60 mm outer dia x 15 mm nominal dia threaded	each	1186.75
18.94.17	For 48.60 mm outer dia x 20 mm nominal dia threaded	each	1186.75
18.94.18	For 48.60 mm outer dia x 25 mm nominal dia threaded	each	1186.75

Code No.	Description	Unit	Rate
18.94.19	For 48.60 mm outer dia x 32 mm nominal dia threaded	each	1186.75
18.94.20	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1186.75
18.94.21	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1186.75
18.95	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Female Thread Tee		
18.95.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	239.50
18.95.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	267.60
18.95.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	267.60
18.95.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	365.25
18.95.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	365.25
18.95.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	365.25
18.95.7	For 34.00 mm outer dia x 15 mm nominal dia threaded	each	584.70
18.95.8	For 34.00 mm outer dia x 20 mm nominal dia threaded	each	584.70
18.95.9	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	584.70
18.95.10	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	584.70
18.95.11	For 42.70 mm outer dia x 15 mm nominal dia threaded	each	913.80
18.95.12	For 42.70 mm outer dia x 20 mm nominal dia threaded	each	913.80
18.95.13	For 42.70 mm outer dia x 25 mm nominal dia threaded	each	913.80
18.95.14	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	913.80
18.95.15	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.95.16	For 48.60 mm outer dia x 15 mm nominal dia threaded	each	1186.75
18.95.17	For 48.60 mm outer dia x 20 mm nominal dia threaded	each	1186.75
18.95.18	For 48.60 mm outer dia x 25 mm nominal dia threaded	each	1186.75
18.95.19	For 48.60 mm outer dia x 32 mm nominal dia threaded	each	1186.75

Code No.	Description		Unit	Rate
18.95.20	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1186.75	
18.95.21	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1186.75	
18.96	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.			
	Female Thread Connector/ Adapter			
18.96.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	254.20	
18.96.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	307.75	
18.96.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	317.10	
18.96.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	370.60	
18.96.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	382.65	
18.96.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	450.90	
18.96.7	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	547.20	
18.96.8	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	719.80	
18.96.9	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	770.65	
18.96.10	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	911.15	
18.96.11	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1121.20	
18.96.12	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1291.10	
18.97	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.			
	Male Thread Connector/ Adapter			
18.97.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	258.20	
18.97.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	303.70	
18.97.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	331.80	
18.97.4	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	418.75	

Code No.	Description	Unit	Rate
18.97.5	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	428.15
18.97.6	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	616.80
	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	755.95
18.97.8	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	868.30
18.97.9	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	971.35
18.97.10	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1123.85
18.97.11	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1522.55
18.98	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Valve Connector		
18.98.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	313.10
18.98.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	369.25
18.98.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	394.70
18.98.4	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	567.30
18.98.5	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	841.55
18.98.6	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	1170.70
18.98.7	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1573.40
18.99	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Female Threaded Elbow 90°		
18.99.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	200.70
18.99.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	255.55
18.99.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	255.55
18.99.4	For 25.58 mm outer dia x 25 mm nominal dia threaded	each	274.30

Code No.	Description	Unit	Rate
18.99.5	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	384.00
18.99.6	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	639.55
18.99.7	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	639.55
18.99.8	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.99.9	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	913.80
18.100	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Male Threaded Elbow 90°		
18.100.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	255.55
18.100.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	274.30
18.100.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	274.30
18.100.4	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	274.30
18.100.5	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	384.00
18.100.6	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	384.00
18.100.7	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	639.55
18.100.8	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	639.55
18.100.9	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.100.10	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	913.80
18.101	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Cap		
18.101.1	For 15.88 mm outer dia pipe	each	60.20
18.101.2	For 22.22 mm outer dia pipe	each	85.65
18.101.3	For 28.58 mm outer dia pipe	each	112.40
18.101.4	For 34.00 mm outer dia pipe	each	218.10

Code No.	Description	Unit	Rate
18.101.5	For 42.70 mm outer dia pipe	each	315.75
18.101.6	For 48.60 mm outer dia pipe	each	400.05
18.102	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	Pipe Bridge		
18.102.1	For 15.88 mm outer dia pipe	each	286.30
18.102.2	For 22.22 mm outer dia pipe	each	362.60
18.102.3	For 28.58 mm outer dia pipe	each	544.55

SUB HEAD : 19.0

DRAINAGE

Code No.	Description	Unit	Rate
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NOTE : - The rates given for all the items under sub-head 'Drainage' are applicable to work executed in soils above sub- soil water level.

Extra allowance has to be made for work under sub- soil water level.

STONE WARE PIPES AND FITTINGS

19.1 Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :

19.1.1	100 mm diameter	metre	246.90
19.1.2	150 mm diameter	metre	406.90
19.1.3	200 mm diameter	metre	686.10
19.1.4	250 mm diameter	metre	1039.10
19.1.5	300 mm diameter	metre	1461.05

19.2 Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :

19.2.1	100 mm diameter S.W. pipe	metre	693.50
19.2.2	150 mm diameter S.W. pipe	metre	848.10
19.2.3	200 mm diameter S.W. pipe	metre	988.70
19.2.4	250 mm diameter S.W. pipe	metre	1143.30

19.3 Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :

19.3.1	100 mm diameter S.W. pipe	metre	329.60
19.3.2	150 mm diameter S.W. pipe	metre	534.20
19.3.3	200 mm diameter S.W. pipe	metre	627.90
19.3.4	250 mm diameter S.W. pipe	metre	731.00
19.3.5	300 mm diameter S.W. pipe	metre	843.45

Code No.	Description	Unit	Rate
19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:		
19.4.1	100x100 mm size P type		
19.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2076.80
19.4.1.2	With Sewer bricks conforming to IS : 4885	each	2101.10
19.4.2	150 x 100 mm size P type		
19.4.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2094.40
19.4.2.2	With sewer bricks conforming to IS : 4885	each	2118.70
19.4.3	180x150 mm size P type		
19.4.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2202.70
19.4.3.2	With Sewer bricks conforming to IS : 4885	each	2227.00
19.5	Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps :		
19.5.1	100 mm diameter	metre	36.50
19.5.2	150 mm diameter	metre	40.35
19.5.3	200 mm diameter	metre	42.95
19.5.4	250 mm diameter	metre	45.50
19.5.5	300 mm diameter	metre	48.10
19.5.6	350 mm diameter	metre	55.35
19.5.7	400 mm diameter	metre	60.50
19.5.8	450 mm diameter	metre	63.10
19.6	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :		
19.6.1	100 mm dia. R.C.C. pipe	metre	365.25
19.6.2	150 mm dia. R.C.C. pipe	metre	402.10
19.6.3	250 mm dia. R.C.C. pipe	metre	657.05

Code No.	Description		Unit	Rate
19.6.4	300 mm dia. R.C.C. pipe	metre	774.55	
19.6.5	450 mm dia. R.C.C. pipe	metre	1275.95	
19.6.6	500 mm dia. R.C.C. pipe	metre	1531.85	
19.6.7	600 mm dia. R.C.C. pipe	metre	1823.15	
19.6.8	700 mm dia. R.C.C. pipe	metre	2374.15	
19.6.9	800 mm dia. R.C.C. pipe	metre	2848.65	
19.6.10	900 mm dia. R.C.C. pipe	metre	3882.55	
19.6.11	1000 mm dia. R.C.C. pipe	metre	4542.40	
19.6.12	1100 mm dia. R.C.C. pipe	metre	5061.00	
19.6.13	1200 mm dia. R.C.C. pipe	metre	5626.95	
19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone- III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone- III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :			
19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :			
19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	9586.55	
19.7.1.2	With Sewer bricks conforming to IS : 4885	each	9650.15	
19.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :			
19.7.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	20394.05	

Code No.	Description	Unit	Rate
19.7.2.2	With Sewer bricks conforming to IS : 4885	each	20567.90
19.7.3	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :		
19.7.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	26146.30
19.7.3.2	With Sewer bricks conforming to IS : 4885	each	26295.85
19.8	Extra for depth for manholes :		
19.8.1	Size 90x80 cm		
19.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	6273.65
19.8.1.2	With Sewer bricks conforming to IS : 4885	metre	6458.75
19.8.2	Size 120x90 cm		
19.8.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	7512.45
19.8.2.2	With Sewer bricks conforming to IS : 4885	metre	7733.05
19.9	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :		
19.9.1	0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter con- forming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :		

Code No.	Description				Unit	Rate
19.9.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	9530.50
19.9.1.2	With Sewer bricks conforming to IS : 4885				each	9620.30
19.10	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m					
19.10.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				metre	5382.95
19.10.2	With Sewer bricks conforming IS : 4885				metre	5537.95
19.11	Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :					
19.11.1	1.68 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conform- ing to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :					
19.11.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	18164.60
19.11.1.2	With Sewer bricks conforming IS : 4885				each	18396.45
19.12	Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :					
19.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				metre	6969.70
19.12.2	With Sewer bricks conforming IS : 4885				metre	7172.00

Code No.	Description	Unit	Rate
19.13	<p>Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :</p> <p>19.13.1 2.30 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :</p>		
	19.13.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	38920.30
	19.13.1.2 With Sewer bricks conforming IS : 4885	each	39589.70
19.14	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :		
	19.14.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	16593.45
	19.14.2 With Sewer bricks conforming IS : 4885	metre	17116.55
19.15	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :		
	19.15.1 With 20x20 mm square bar	each	312.95
	19.15.2 With 20 mm diameter round bar	each	274.40

Code No.	Description	Unit	Rate
19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to withstand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	345.65
19.17	Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size):		
	19.17.1 With 20x20 mm square bar	each	368.55
	19.17.2 With 20 mm diameter round bar	each	330.00
19.18	Supplying and fixing C.I. cover without frame for manholes :		
	19.18.1 455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg	each	1288.15
	19.18.2 500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg	each	3164.80
	19.18.3 560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg	each	6784.35
19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality		
	19.19.1 L D- 2.5		
	19.19.1.1 Rectangular shape 600x450 mm internal dimensions	each	1195.55
	19.19.1.2 Square shape 450 mm internal dimensions	each	1002.20
	19.19.1.3 Circular shape 450 mm internal diameter	each	1002.20

Code No.	Description	Unit	Rate
19.19.2	M D - 10		
19.19.2.1	Square shape 450 mm internal dimension	each	1197.20
19.19.2.2	Circular shape 500 mm internal diameter	each	1010.55
19.19.3	H D - 20		
19.19.3.1	Circular shape 560 mm internal diameter	each	1446.45
19.19.4	EHD - 35		
19.19.4.1	Circular shape 560 mm internal dia	each	1834.45
19.20	Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg	each	658.30
19.21	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :		
19.21.1	For pipes 100 to 250 mm diameter	each	416.20
19.21.2	For pipes 250 to 300 mm diameter	each	493.60
19.21.3	For pipes 350 to 450 mm diameter	each	715.65
19.22	Providing sand cast iron drop connection externally for 60 cm drop from branch sewer line to main sewer manhole including inspection and cleaning eye with chain and lid, sand cast iron drop pipe and bend encased all-round with cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with all centering and shuttering required, cutting holes in walls and making good with brick work in cement mortar 1:4 (1 cement : 4 coarse sand) plastered with cement mortar 1:3 (1 cement : 3 coarse sand) on inside of the manhole wall, lead caulked joints between sand cast iron pipes and fittings, stiff cement mortar 1:1 (1 cement : 1 fine sand) joints between sand cast iron tee and S.W. pipe, making required channels complete as per standard design and specifications :		
19.22.1	100 mm dia sand cast iron drop connection	each	6999.75
19.22.2	150 mm dia sand cast iron drop connection	each	9769.30

Code No.	Description		Unit	Rate
19.23	Extra for depths beyond 60 cm of sand cast iron drop connection complete:			
19.23.1	For 100 mm dia sand cast iron drop connection	metre	2198.30	
19.23.2	For 150 mm dia sand cast iron drop connection	metre	2910.90	
19.24	Dismantling of manhole including R.C.C. top slab, C.I. cover with frame, including stacking of useful materials near the site and disposal of unserviceable materials within 50 m lead as per direction of Engineer- charge :			
19.24.1	Rectangular manhole 90x80 cm and 45 cm deep	each	1056.70	
19.24.2	Rectangular manhole 120x90 cm and 90 cm deep	each	1853.55	
19.24.3	Rectangular arch type manhole 140x90 cm and 2.45 m deep	each	3506.70	
19.24.4	Circular manhole 122 cm diameter and 1.68 m deep	each	2688.30	
19.25	Extra for depth of manholes dismantled :			
19.25.1	Rectangular manhole 90x80 cm and beyond 45 cm depth	metre	844.35	
19.25.2	Rectangular manhole 120x90 cm and beyond 90 cm depth	metre	1005.45	
19.25.3	Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)	metre	813.50	
19.25.4	Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m depth)	metre	917.60	
19.26	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :			
19.26.1	Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5	each	1847.25	
19.26.2	Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10	each	2894.05	
19.26.3	Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20	each	2694.35	
19.26.4	Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	each	247.30	
19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :			

Code No.	Description				Unit	Rate
19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	4439.40
19.28	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :					
19.28.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	4887.15
19.29	Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :					
19.29.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	8369.50
19.30	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 Fine sand : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:					
19.30.1	Inside dimensions 455x610 mm and 45 cm deep for single pipe line :					
19.30.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	5290.75
19.30.2	Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :					
19.30.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	6039.35
19.30.3	Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :					
19.30.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				each	7026.95
19.31	Extra for depth beyond 45 cm of brick masonry chamber :					

Code No.	Description	Unit	Rate
19.31.1	For 455x610 mm size		
19.31.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4371.40
19.31.2	For 500x700 mm size		
19.31.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4766.65
19.31.3	For 600x850 mm size		
19.31.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	5547.80
19.32	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.		
19.32.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	21479.80
19.33	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	each	2284.95
19.34	Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :		
19.34.1	100 mm dia	each	323.50
19.34.2	150 mm dia	each	434.75
19.35	Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete		
19.35.1	450 mm dia RCC pipes.	metre	2206.70
19.35.2	600 mm dia RCC pipes.	metre	2879.70
19.35.3	900 mm dia RCC pipes.	metre	4534.75
19.35.4	1000 mm dia RCC pipes. (Laying by manual/ mechanical means)	metre	5609.90
19.35.5	1200 mm dia RCC pipes. (Laying by manual/ mechanical means)	metre	7367.15
19.35.6	1800 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	13519.20
19.36	Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete		
19.36.1	450 mm dia RCC pipes.	metre	2523.80

Code No.	Description	Unit	Rate
19.36.2	600 mm dia RCC pipes.	metre	3301.15
19.36.3	900 mm dia RCC pipes.	metre	6332.90
19.36.4	1000 mm dia RCC pipes.(Laying by manual/ machanical means)	metre	7857.65
19.36.5	1200 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	9333.90
19.36.6	1800 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	19080.90

SUB HEAD : 20.0

PILE WORK

Code No.	Description	Unit	Rate
20.1	Providing, driving with hydraulic piling rigs with power units and installing driven cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) :		
20.1.1	400 mm dia piles	metre	2077.60
20.1.2	450 mm dia piles	metre	2533.60
20.1.3	500 mm dia piles	metre	3051.10
20.1.4	550 mm dia piles	metre	3316.00
20.1.5	750 mm dia piles	metre	5634.95
20.1.6	1000 mm dia piles	metre	9334.65
20.1.7	1200 mm dia piles	metre	12091.25
20.1.8	1500 mm dia piles	metre	17108.55
20.2	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).		
	Note: Truck Mounted rotary/TMR/Tubewell boring machine shall not be used .		
20.2.1	450 mm dia piles	metre	1595.45
20.2.2	500 mm dia piles	metre	1873.65

Code No.	Description	Unit	Rate
20.2.3	600 mm dia piles	metre	2561.25
20.2.4	750 mm dia piles	metre	3936.10
20.2A	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic piling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).		
	Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used.		
20.2A.1	600 mm dia piles	metre	3875.80
20.2A.2	750 mm dia piles	metre	5571.95
20.2A.3	1000 mm dia piles	metre	9314.85
20.2A.4	1200 mm dia piles	metre	12222.75
20.2A.5	1500 mm dia piles	metre	17607.45
20.3	Boring with hydraulic piling rigs with power units , providing and installing cast in situ single under reamed piles of specified diameter and length below pile cap in M-25 cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and the length of the pile to be embedded in pile cap etc. all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :		
20.3.1	300 mm dia piles	metre	2238.50
20.3.2	400 mm dia piles	metre	2727.80
20.3.3	450 mm dia piles	metre	3018.55
20.3.4	550 mm dia piles	metre	3368.65
20.4	Extra over single under ream for providing additional bulbs in under reamed piles, under specified diameter (only the nos. of extra bulbs are to be paid)		
20.4.1	300 mm dia piles	each	1572.45
20.4.2	400 mm dia piles	each	1792.40

Code No.	Description	Unit	Rate
20.4.3	450 mm dia piles	each	1925.15
20.4.4	550 mm dia piles	each	2125.50
20.5	Providing, driving (with vibrating pile driving hammer complete with power units & accessories) and installing driven Pre-cast reinforced cement concrete piles of specified diameter and length below the pile cap in M-25 cement concrete to carry safe working load not less than specified, with a central through preformed hole with M.S. black pipe of dia, 40 mm for grouting with cement sand grouting of mix 1:2 (1cement : 2 coarse sand) under sufficient positive pressure to ensure complete filling including centring, shuttering, driving and removing the steel casing pipe and lifting casing etc. complete but excluding the cost of steel reinforcement. (Length of pile for payment shall be measured from top of the shoe to the bottom of pile cap).		
20.5.1	400 mm dia piles	metre	2682.20
20.5.2	450 mm dia piles	metre	3252.90
20.5.3	500 mm dia piles	metre	3470.30
20.5.4	550 mm dia piles	metre	3929.80
20.5.5	750 mm dia piles	metre	7343.95
20.5.6	1000 mm dia piles	metre	10028.50
20.6	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.		
	Note: Initial and Routine Load Test shall not be carried out by Dynamic method of testing.		
	Note: 2. Testing agency shall submit the design of loading platform for the approval of Engineer in-charge.		
20.6.1	Single pile upto 50 tonne Safe capacity		
20.6.1.1	Initial test (Test Load 2.5 times the Safe capacity)	per test	53517.50
20.6.1.2	Routine test (Test Load 1.5 times the Safe capacity)	per test	20069.05
20.6.2	Single pile above 50 tonne and upto 100 tonne Safe capacity		

Code No.	Description	Unit	Rate
20.6.2.1	Initial test (Test Load 2.5 times the Safe capacity)	per test	60207.20
20.6.2.2	Routine test (Test Load 1.5 times the Safe capacity)	per test	30772.55
20.6.2.3	Group of two or more piles upto 50 tonne Safe capacity		
20.6.3.1	Initial test (Test Load 2.5 times the Safe capacity)	per test	66896.90
20.6.3.2	Routine test (Test Load 1.5 times the Safe capacity)	per test	39469.15
20.7	Cyclic vertical load testing of pile in accordance with IS Code of practice IS:2911 (part IV) by Kentledge method including preparation of pile head etc for.		
20.7.1	Single pile		
20.7.1.1	Upto 50 tonne Safe capacity pile	per test	20069.05
20.7.1.2	Above 50 tonne and upto 100 tonne Safe capacity pile	per test	30772.55
20.7.2	Group of two or more piles		
20.7.2.1	Upto 400 tonne Safe capacity of group	per test	39469.15
20.8	Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile :		
20.8.1	Upto 50 tonne capacity pile	per test	20069.05
20.8.2	Above 50 tonne and upto 100 tonne capacity pile	per test	31575.35
20.9	Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge.		
	Note :- The inclusion of the above item in the schedule of work shall be judiciously decided by the technical sanctioning authority, keeping in view the quality control, type of soil strata & importance of the project	per test	853.60

SUB HEAD : 21.0

ALUMINIUM WORK

Code No.	Description	Unit	Rate
21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :		
21.1.1	For fixed portion		
21.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	388.10
21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	420.45
21.1.1.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	kg	428.85
21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)		
21.1.2.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC15)	kg	449.45
21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	482.40
21.1.2.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	kg	491.00

Code No.	Description	Unit	Rate
21.2	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer- in-charge.		
21.2.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	sqm	900.00
21.2.2	Pre-laminated particle board with decorative lamination on both sides	sqm	949.20
21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):		
21.3.1	With float glass panes of 4.0 mm thickness (weight not less than 10 kg/ sqm)	sqm	832.95
21.3.2	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	sqm	1129.70
21.3.3	With float glass panes of 8 mm thickness (weight not less than 20 kg/ sqm)	sqm	1295.65
21.4	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.		
21.4.1	With stainless steel cover plate minimum 1.25 mm thickness	each	2292.20
21.4.2	With brass cover plate minimum 1.25 mm thickness	each	2452.75

Code No.	Description	Unit	Rate
21.5	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).	kg	603.50
21.6	Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer-in-charge.	each	60.90
21.7	Providing and fixing machine moulded aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving dash fastener, over expansion joints on vertical surfaces/ceiling floors, the fixing on plate in one row on one side of joint only shall be done with stainless steel dash fasteners of 8 mm dia and 75 mm long bolt including providing aluminium washers 2 mm thick & 15 mm dia , at a staggered pitch of 200mm centre to centre including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete as per direction of Engineer-in-charge.		
21.7.1	Anodised aluminium sheet 2.5mm thick (anodised trans-parent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	541.45
21.7.2	Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)	kg	573.75
21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.		
21.8.1	Upto 5mm depth and 5 mm width	metre	79.45
21.9	Extra for applying additional anodic coating AC 25 instead of AC 15 to aluminium extruded sections.		

Code No.	Description	Unit	Rate
21.9.1	For fixed portion	kg	13.40
21.9.2	For shutters of doors, windows & ventilators	kg	13.40
21.10	Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.	sqm	3665.70
21.11	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer- in-charge complete.		
21.11.1	205 X 19 mm	each	245.60
21.11.2	255 X 19 mm	each	312.50
21.11.3	355 X 19 mm	each	276.35
21.11.4	510 X 19 mm	each	717.90
21.11.5	710 X 19 mm	each	1219.60
21.12	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.		
21.12.1	Anodized (AC 15) aluminium tubular handle bar	each	507.95
21.12.2	Powder coated minimum thickness 50 micron aluminium tubular handle bar	each	558.20
21.12.3	Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar	each	571.35
21.13	Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	each	398.95
21.14	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS: 1285, fixed with dash fastener of required dia and size (Dash fastener to be paid for separately).	kg	344.90

Code No.	Description	Unit	Rate
21.15	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.		
21.15.1	Anodized (AC 15) aluminium	each	65.45
21.15.2	Powder coated minimum thickness 50 micron aluminium	each	69.45
21.15.3	Polyester powder coated minimum thickness 50 micron aluminium	each	68.15
21.16	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in- charge		
21.16.1	Anodized (AC 15) aluminium	each	77.50
21.16.2	Powder coated minimum thickness 50 micron aluminium	each	81.50
21.16.3	Polyester powder coated minimum thickness 50 micron aluminium	each	86.85
21.17	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	kg	482.50
21.18	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double action hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in- charge (Door handle, lock and stopper etc.to be paid separately).	sqm	4080.00
21.19	Filling the gap in between aluminium/ stone/ wood frame and adjacent RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum work by providing weather/structural non sag elastomeric PU sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete, complying to ASTM C920, DIN 18540- F & ISO 11600		
21.19.1	Upto 5 mm depth and 5 mm width	metre	111.10
21.19.2	Upto 10 mm depth and 10 mm width	metre	153.05

Code No.	Description	Unit	Rate
21.19.3	Upto 20 mm depth and 20 mm width	metre	282.40

SUB HEAD : 22.0

WATER PROOFING

Code No.	Description	Unit	Rate
22.1	<p>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 :</p> <p>(i) 1st layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound.</p> <p>(ii) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions.</p> <p>(iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer.</p> <p>22.1.1 Using rough kota stone.</p>	sqm	1131.65
22.2	<p>Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :</p> <p>22.2.1 Using rough Kota stone</p>	sqm	1344.60
22.3	<p>Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:</p>		

Code No.	Description	Unit	Rate
	<p>(i) 1st course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.</p> <p>(ii) 2nd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface</p> <p>(iii) 3rd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.</p> <p>(iv) 4th 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).</p>		
22.4	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :	sqm	529.35
22.4.1	Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	276.85
22.4.2	Dumb bell with central bulb (180 mm wide, 8 mm thick)	metre	223.35
22.4.3	Kickers (320 mm wide, 5 mm thick)	metre	256.80
22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :		
	<p>(a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.</p> <p>(The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.)</p>	sqm	302.70

Code No.	Description	Unit	Rate
22.6	<p>Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:</p> <p>(a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm.</p> <p>(b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.</p> <p>(c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around.</p> <p>(d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately).</p> <p>(For the purpose of measurement the entire treated surface will be measured.)</p>	sqm	391.90
22.7	<p>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:</p> <p>(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.</p>		

Code No.	Description	Unit	Rate
22.7.1	<p>(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of</p> <p>(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer- in-charge.</p> <p>(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer- in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.</p> <p>(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test.“All above operations to be done in order and as directed and specified by the Engineer-in-Charge :</p> <p>With average thickness of 120 mm and minimum thickness at khurra as 65 mm.</p>	sqm	1086.65

Code No.	Description	Unit	Rate
22.8	Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of first and third courses of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45 Kg per square metre of area for each course, second course of roofing felt type 3 grade-I (hessian based self finished bitumen felt) and fourth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per square metre, including preparation of surface but excluding grading complete with :		
22.8.1	Bitumen felt (hessian base) type 3 grade I conforming to IS : 1322	sqm	345.35
22.9	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45, 1.20 and 1.45 Kg per square metre of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS : 1322 (Hessian based self finished bitumen felt) , sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.	sqm	546.60
22.10	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade I (fibre base self finished bitumen felt) six and final courses of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface, excluding grading, compete.	sqm	602.90
22.11	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade II (glass fibre base self finished bitumen felt) and sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.	sqm	603.15
22.12	Supplying and applying bituminous solution primer on roof and / or wall surface at 0.24 litre per sqm.	sqm	34.25

Code No.	Description	Unit	Rate
22.13	Deduct for omitting in water proofing treatment final course of spreading stone grit 6 mm down size or pea sized gravel :		
22.13.1	at 6 cudm per sqm	sqm	14.85
22.13.2	at 8 cudm per sqm	sqm	18.70
22.14	Grading roof for water proofing treatment with		
22.14.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	cum	6100.15
22.14.2	Cement mortar 1:3 (1 cement : 3 coarse sand)	cum	9731.65
22.14.3	Cement mortar 1:4 (1cement : 4 coarse sand)	cum	8853.60
22.22	Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc. at the time of transporting of concrete into the drum of the ready-mix truck, using integral crystalline admixture @ 0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.	kg	387.20
22.22A	Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.	sqm	367.05

Code No.	Description	Unit	Rate
22.23	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI- 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.		
22.23.1	For vertical surface two coats @ 0.70 kg per sqm	sqm	484.45
22.23.2	For horizontal surface one coat @1.10 kg per sqm.	sqm	373.40
22.23A	Providing & Applying polymer modified, flexible cementitious negative side waterproofing coating with elastic waterproofing polymers on interior wall plaster surface in three coats @14.35 kg /10 sqm. one coat of self priming of cementitious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementitious waterproofing polymer (dilution with water in the ratio of 3:1) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster is visible, complete in all respect as per the direction of Engineer-in-Charge.	sqm	418.75

Code No.	Description	Unit	Rate
22.24	Providing and applying integral crystalline (dry shake) of hydrophilic in nature for waterproofing treatment to the RCC structures like basement raft, foundation slab, sewage & water treatment plant slab, warehouses floor, parking structures and water tank base slab etc. sprinkled @0.60kg per sqm or higher as recommended by the manufacturer's specification over the lean concrete of above cited structures. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 85%, compared control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline dry- shake shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.	sqm	327.65
22.24A	Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and UV resistance properties to be applied as intermediate finish in desired pattern @ 43.04 kgs/10 sqm to form film of 1- 1.5 mm thickness after scrapping and properly cleaning the surface to remove loose particles from the plaster surface, followed by top coating with Premium Acrylic Smooth exterior paint with Silicone additives of required shade by two or more coats @ 1.43 litres/10 sqm, complete as the direction of Engineer -in-Charge.	sqm	360.80
22.25	Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts crystalline mortar : 1 part water) for the treatment of faulty construction joints, cracks, tie rod holes and spalled & honeycombed surface of RCC underground structures like basement, water tanks, bridge deck etc. to ensure water tightness. The crystalline mortar shall conform to the EN 1504-3 having compressive strength Class R4 \geq 45 MPa and adhesive bond strength Class R3 \geq 1.5 MPa. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.	sqm	

Code No.	Description	Unit	Rate
22.25.1	For sealing cracks and faulty construction joints, routed out/making U-shape groove size 25x25mm and then primed the area with integral crystalline slurry @0.05kg/ running metre and while the surface is tacky filled the groove upto surface with crystalline mortar @1.50kg/ running metre. Once crystalline mortar is touch dry then finally applied two coats of integral crystalline slurry @0.05kg/running metre per coat.	metre	525.70
22.25.2	For patching of tie rod holes, prepared tie rod hole surface and then primed the area with integral crystalline slurry @0.070kg/sqm and while the surface is tacky repair and then filled the tie rod holes with crystalline mortar@0.040kg per hole. The crystalline mortar should be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040kg to fill the hole)	each hole	20.75
22.26	Providing and applying of swellable type water stop tape, 19mm x 25mm thick in linear meter (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running meter. Over the primed surface swellable type water stop tape shall be placed. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.	metre	552.20

SUB HEAD : 23.0

RAIN WATER HARVESTING & TUBEWELLS

Code No.	Description	Unit	Rate
23.1	Boring/drilling bore well of required dia for casing/strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.		
	23.1.1 All types of soil		
	23.1.1.1 300 mm dia	metre	438.80
	23.1.1.2 350 mm dia	metre	479.95
	23.1.1.3 400 mm dia	metre	614.35
	23.1.2 Rocky strata including Boulders		
	23.1.2.1 300 mm dia	metre	1008.65
	23.1.2.2 350 mm dia	metre	1054.50
	23.1.2.3 400 mm dia	metre	1216.35
23.2	Boring/drilling bore well of required dia for casing/strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre & upto 150 metre depth below ground level.		
	23.2.1 All types of soil		
	23.2.1.1 300 mm dia	metre	511.95
	23.2.1.2 350 mm dia	metre	568.80
	23.2.1.3 400 mm dia	metre	767.90
	23.2.2 Rocky strata including Boulders		
	23.2.2.1 300 mm dia	metre	1092.05
	23.2.2.2 350 mm dia	metre	1132.75
	23.2.2.3 400 mm dia	metre	1432.50

Code No.	Description	Unit	Rate
23.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.		
	23.3.1 100 mm nominal size dia	metre	597.20
	23.3.2 150 mm nominal size dia	metre	687.65
	23.3.3 200 mm nominal size dia	metre	1062.95
23.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.		
	23.4.1 100 mm nominal size dia	metre	648.30
	23.4.2 150 mm nominal size dia	metre	743.00
	23.4.3 200 mm nominal size dia	metre	1132.75
23.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	1247.25
23.6	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	1247.25
23.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in- charge.	cum	1247.25
23.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	1402.50
23.9	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer- in-charge.	each	1210.85

Code No.	Description	Unit	Rate
23.10	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.		
	23.10.1 100 mm nominal size dia having minimum wall thickness 5.00 mm	metre	1154.35
	23.10.2 150 mm nominal size dia having minimum wall thickness 5.00 mm	metre	1621.65
	23.10.3 200 mm nominal size dia having minimum wall thickness 5.40 mm	metre	2015.70
23.11	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/3.2 mm) mild steel threaded and socketed/ plain bevel ended pipe (type A) of required dia, conforming to IS: 8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with outside surface with two coats of anticorrosive bitumestic paint of approved brand and manufacture, including hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer -in-charge.		
	23.11.1 100 mm nominal size dia	metre	1235.20
	23.11.2 150 mm nominal size dia	metre	1729.40
	23.11.3 200 mm nominal size dia	metre	2124.20
23.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	hour	857.60

Code No.	Description	Unit	Rate
23.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:		
23.13.1	100 mm dia	each	189.65
23.13.2	150 mm dia	each	210.75
23.13.3	200 mm dia	each	280.95
23.14	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.		
23.14.1	100 mm clamp	each	1276.70
23.14.2	150 mm clamp	each	1350.55
23.14.3	200 mm clamp	each	1532.00
23.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).		
23.15.1	100 mm dia	each	227.45
23.15.2	150 mm dia	each	280.95
23.15.3	200 mm dia	each	307.75

SUB HEAD : 24.0

CONSERVATION OF HERITAGE BUILDINGS

Code No.	Description	Unit	Unit
24.1	Raking out joints of stone masonry surface to the required width and depth, with due care and precaution, by mechanical / manual means, including preparing and cleaning the surface for re-pointing/ refilling of joints, including disposal of rubbish to the dumping ground within 50 metre lead.	sqm	29.55
24.2	Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge.	182.60	

Note:- (1) The elevational area of the scaffolding sqm shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.

Code No.	Description	Unit	Unit
24.3	Cleaning the sand stone surface and removing dirt, dust, sqm bird dropping, grease, oil, algae, fungus, monkey beats, vegetable growth etc., including providing, applying and washing the surface with liquid Ammonia Chemical of 5% solution and other chemical cleaning agent as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with the help of required scrubbers and also cleaning with machine operated water jet mixed with desired quantity of fine silica where ever required, without causing any scratching/ damage to the stone surface and finally washing the surface with clean water with the help of pressure jet machine, complete in all respect, including taking all precautions to safeguard ventilators, windows, doors etc. by suitable covering so as to avoid any damage to the building/structure, all as per direction of Engineer- in-charge (The rate is inclusive of all materials & labours involved except scaffolding).		94.05
24.4	Providing and applying antifungal wash treatment using sqm 3% solution of sodium pentachlorophenate, of reputed brand and manufacturer, on cleaned sand stone surface at desired locations as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).		36.00
24.5	Ruled / Flush pointing on Red sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime: 1.5 surkhi (50% red and 50% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	153.55
24.6	Ruled/ Flush pointing on White sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime : 1.5 surkhi (15% dark red and 85% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	153.55
24.7	Applying two or more coat of Ethyl Silicate chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with brush or spray on the existing stone masonry surface till there is no further absorption of chemical by stone surface, including protecting the applied surface from direct sunlight by suitable means during application, all complete as per direction of the Engineer-in-Charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	271.95

Code No.	Description	Unit	Unit
24.8	Applying breathable, non-reactive, antifungal, and water repellent Silane/Siloxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:12 (One part of approved chemical :12 Part of Turpentine oil), on the existing sand stone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-In-charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	76.35

SUB HEAD : 25.0

STRUCTURAL GLAZING ALUMINIUM COMPOSITE PANEL

Code No.	Description	Unit	Rate
25.1	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account). The weight of aluminium extruded section shall be taken for purpose of payment.	kg	370.45
25.2	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: (a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:		

Code No.	Description	Unit	Rate
	(b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimentional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.		
	(c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.		
	(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.		
	(e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design		

Code No.	Description	Unit	Rate
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including shop drawings checked by a structural designer, duly approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer- in-Charge.

Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.

Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately.

The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NABL accredited lab or by any other accreditation body which operates in accordance with ISO / IEC 17011 and accredits labs as per ISO/ IEC 17025.

1. Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr

Code No.	Description	Unit	Rate
25.3	<p>2. Static Water Penetration Test. (50pa to 1500pa) as per ASTME- 331-09 testing method for a range up to 2000 ml.</p> <p>3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml</p> <p>4. Structural Performance Deflection and deformation by static air pressure test (1.5 times design wind pressure without any failure) as per ASTME-330-10 testing method for a range upto 50 mm</p> <p>5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test, Tests to be conducted on site.</p> <p>6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ml</p> <p>Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthned clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor.</p> <p>(Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.25.2)</p> <p>For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.</p> <p>(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m² degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.</p>	sqm	2949.30
		sqm	3250.95

Code No.	Description	Unit	Rate
25.4	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer- in-Charge.	sqm	3163.10
25.5	Providing, fabricating and supplying shadow box of required size and shape, for fixing in the spandrel portion of the structural glazing, in linear as well as curvilinear portions of the building by providing semi - rigid, inorganic, non-combustible fibre glass wool insulation 50 mm thick, conforming to IS: 8183 and BS: 3958 Part 5. The insulation layer shall have facing (factory bonded on surface # 1 of the fibre glass insulation layer), of black non-woven fibre glass tissue of nominal thickness 0.5 mm and nominal mass not less than 60 gm /sqm, made of randomly oriented glass fibres distributed in a binder by a wet-lay process including fixing 1.5 mm thick solid aluminum sheet backing using, 6 mm thick cement board including SS rivets, nuts, bolts, washers etc complete.	sqm	1883.55
25.6	Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in- Charge.		

Code No.	Description	Unit	Rate
	<p>For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevant Item*).“(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25-0.28) and U value of 3.0 to 3.3 W/m² K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.</p>		
25.8	<p>Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/ beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof.</p>	<p>sqm</p>	<p>2127.95</p>
	<p>The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured.</p>	<p>sqm</p>	<p>8130.45</p>

SUB HEAD : 26.0

NEW TECHNOLOGIES AND MATERIALS

Code No.	Description	Unit	Rate
26.1	<p>Providing & fixing in position Phenol bonded Bamboowood flooring with planks of sizes 14mm thick, 1800mm length (minimum) and 130 mm wide(minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The flooring shall be fixed with tongue and groove interlocking system, with underlayment of 4mm thick expanded polyethylene foam sheets having density 40kg/cum, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and door reducer of size 1900mm x 44mm, wherever required. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.</p>	sqm	5259.10
26.2	<p>Providing & fixing in position Phenol bonded Bamboowood in wall skirting with planks of sizes 14mm thick, 1900mm length (minimum) and 85mm wide(minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The skirting shall be fixed with SS screws & rawl plugs, over underlayment of 4mm thick, expanded polyethylene foam sheets having 40kg/cum density over prepared surface. The bamboowood planks shall have minimum density of 1000Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.</p>	sqm	5095.95
26.3	<p>Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1800mm length (minimum) and 130 mm wide (minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology</p>		

Code No.	Description	Unit	Rate
	<p>Council (BMTPC), with necessary profiled edges fixed with 40mm SS screws 5 nos in each tile to frame work made of second class teak wood of size 20x15 mm in centre of each tile and bottom and top of work height, 40x15mm placed at ends of each tile. The cladding shall be laid over backlayment of 1.00 mm thick expanded polyethylene foam of density 40kg/cum in two layers, first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The bamboo wood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.</p>	sqm	5502.80
26.4	<p>Providing & fixing in position Phenol bonded Bamboo wood panelled or panelled and glazed shutters for doors windows, clerestorey windows with pre-molded 30mm thick planks, in approved colours, texture & finish. It shall have 10mm wide, 25mm deep groove to fit in panels. The bamboo wood shall have minimum density of 1000 Kg/ cum, minimum Hardness 1000 Kgf. All styles and rails shall have profiled interlocking system locked in place by bamboo pins, all complete as per direction of Engineer in charge. (The panelling will be paid for separately).</p>	sqm	5343.40
26.5	<p>Providing & fixing in position Phenol bonded Bamboo wood panelling of 10mm thick, in 25 to 40 mm thick panelled or panelled & glazed shutters for doors, windows, clerestorey windows, in approved colour, texture & finish. The bamboo wood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. The panels shall have profiled interlocking system locked in place with bamboo pins all complete as per direction of the Engineer in-charge. (area of opening for panel inserts excluding portion inside grooves or rebates to be measured)</p>	sqm	3175.20
26.6	<p>Providing & fixing in position 65 mm thick factory made door frame of Phenol bonded Bamboo wood (superior class, interior use), in approved colour, texture and finish. The bamboo wood shall have minimum density of 1000 Kg/cum, minimum hardness 1000 Kgf. The door frame shall have tenon & mortise interlocking system, to be fixed to the wall with 100 mm size G.I screws all a complete as per direction of Engineer-in charge.</p>	cudm	245.70

Code No.	Description	Unit	Rate
26.6A	Providing, erecting, laying and fixing in position in 3.5 to 4 mm thick bamboo mat corrugated sheet (BMCS) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge	sqm	5100.60
26.6B	Providing and fixing in position ridges of 3.5 to 4 mm thick bamboo mat ridge cap (BMRC) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.	metre	4128.75
26.6C	Providing and fixing at all height false ceiling of 4mm thick phenol bonded Bamboo Mat board (595x595mm) conforming to IS:13958-1994 including providing and fixing of frame work made of GI angle 25x25x0.4 mm thick all around suitably fixed to wall with the help of dash fastener and hanger frame (600x600 c/c) made GI slotted Tee having powder coating on bottom side (30x25x0.3 mm thick for main member & 25x25x0.3 mm for cross member) connected to ceiling with 2.64mm GI wire and anchor fastener at every junction and also including cost of making openings for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed all complete as per direction of Engineer-in-charge	sqm	3084.70
26.6D	Providing and fixing at Bamboo Mat board conforming to IS:13958-1994 for partition to frame by bucking or studding with screws etc. complete (Frames, backing or studding to be paid separately)	sqm	
26.6D.1	3mm thickness	sqm	2298.50
26.6D.2	4mm thickness	sqm	2643.55
26.6D.3	6mm thickness	sqm	3171.30
26.6D.4	9mm thickness	sqm	4044.10
26.6D.5	12mm thickness	sqm	4665.95
26.6E	Providing and fixing at all height wall panelling with phenol bonded Bamboo Mat board conforming to IS:13958-1994 including providing and fixing to frame work made of 50mm x 50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good the wall etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws all complete as per direction of Engineer-in-Charge.	sqm	
26.6E.1	9mm thickness	sqm	4371.15

Code No.	Description	Unit	Rate
	26.6E.2 12mm thickness	sqm	4994.10
26.7	Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size between cavity wall, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/m ³ as per ASTM D 1622, water absorptions \leq 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer- in-Charge.	sqm	780.60
26.8	Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size underdeck on ceiling surface, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/cum as per ASTM D 1622, water absorptions \leq 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer- in-Charge.	sqm	818.00
26.9	Providing and fixing factory made solid Foam uPVC profile for kitchen cabinet frame (45 x 20 mm) of approved shade, quality and make. The profile shall be laminated on both sides, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and the exposed edges sealed with PVC edge beading of same shade and colour. The frame shall be fire retardent with necessary screw holding capacity. Frame shall be fixed to wall using Expendable Fastner with necessary stainless steel screws, all complete as per direction of Engineer-in-charge.	metre	345.65

Code No.	Description	Unit	Rate
26.10	Providing and fixing factory made Kitchen Cabinet Shutter/Partition 20 mm nominal thickness of approved shade, quality and make, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and laminated on both side by laminate Sheet/PVC foil lamination. The exposed edges shall be sealed with PVC edge beading of same shade and colour. The shutter shall be fire retardent having necessary screw holding capacity. Shutter shall be fixed to frame using approved hinges with necessary stainless steel screws, all complete as per direction of Engineer-in-charge.	sqm	4059.95
26.11	Providing and fixing concealed hinge of approved quality for 19-20mm thick door with stainless steel screws complete :	each	96.70
26.12	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 15kN/m in the longitudinal and transverse direction, with 5kN/m and 7kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	160.55
26.13	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 20kN/m in the longitudinal and transverse direction, with 7kN/m and 14kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	182.65
26.14	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	285.65

Code No.	Description	Unit	Rate
26.15	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 40kN/m in the longitudinal and transverse direction, with 14kN/m and 28kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	418.10
26.16	Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. Geocomposite for planar drainage, realized by thermobonding a draining core in extruded monofilaments with two filtering nonwoven geotextiles that may also be working as separation or protecting layers. The draining three dimensional core will have a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm characteristic opening size (090) of 110 micron and tensile strength of 8.0 KN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 18 kN/m , with mass per unit area of 740 gsm, supplied in the form of roll for easy transportation to site of work as per detailed specification all complete as per directions of Engineer in charge.	sqm	793.40
26.17	Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlayed ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 gsm and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/m , with mass per unit area of 830 gsm, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer - In - Charge.	sqm	940.60

Code No.	Description	Unit	Rate
26.18	Supplying and laying high strength flexible geogrids (HSFG) as soil reinforcement / basal reinforcement as per MORTH 3100 and IRC 113, made of high tenacity polyester core with polyethylene coating with Minimum Long Term Design Strength (LTDS) of more than 50% of ultimate tensile strength at 30 degree Celcius corresponding to 12 % strain . 26.18.1 Ultimate tensile strength- 100 kN/m 26.18.2 Ultimate tensile strength- 150 kN/m 26.18.3 Ultimate tensile strength- 200 kN/m 26.18.4 Ultimate tensile strength- 250 kN/m 26.18.5 Ultimate tensile strength- 300 kN/m 26.18.6 Ultimate tensile strength- 350 kN/m 26.18.7 Ultimate tensile strength- 400 kN/m 26.18.8 Ultimate tensile strength- 500 kN/m 26.18.9 Ultimate tensile strength- 600 kN/m 26.18.10 Ultimate tensile strength- 700 kN/m 26.18.11 Ultimate tensile strength- 800 kN/m 26.18.12 Ultimate tensile strength- 900 kN/m 26.18.13 Ultimate tensile strength- 1000 kN/m 26.18.14 Ultimate tensile strength- 1100 kN/m 26.18.15 Ultimate tensile strength- 1200 kN/m	sqm	337.15 351.90 484.35 535.85 550.55 557.95 712.45 800.75 822.85 1021.55 1117.20 1337.95 1521.90 1485.10 1614.65
26.19	Providing at all heights, levels and locations Aluminium profile industrial troughed sheet of Alloy 31500/31000/40800, conforming to IS 1254, IS 737, IS 2676. The sheet shall be fixed using self drilling/ self tapping SS screws of size 5.5x65 mm with EPDM seal complete upto required pitch in horizontal, vertical or curved surfaces i/c cutting to size and shape where required as per specifications, detail drawings and direction of Engineer-in-Charge. The rate shall be inclusive of all screws, seal, ridge, labour, scaffolding, machinery for fixing and approved sealant where required etc. but excluding the cost of purlins, rafters and trusses. 26.19.1 0.71 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm. 26.19.2 0.91 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.	sqm	940.95 1204.45

Code No.	Description	Unit	Rate
26.22	<p>Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450mm center to center and 40 mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.</p> <p>26.22.1 With 15 mm thick tegular edged light weight calcium silicate false ceiling tiles.</p>	sqm	1517.70
26.23	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal powder coated T-Grid of hot dipped galvanised iron section of 0.40 mm thick on		

Code No.	Description	Unit	Rate
	Silhouette profile, rotary stitched double webbed white with 6mm reveal profile (white/black), comprising of main T runners of size 15x42mm of length 3000 mm, cross - T of size 15x42 mm of length 1200 mm and secondary intermediate crossT of size 15x42 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 22x19x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.		
26.23.1	With 15 mm thick integral densified micro edge light weight calcium silicate false ceiling tiles	sqm	1781.60
26.24	Providing and fixing in position wall panelling at all heights with integral densified calcium silicate panels/tiles of size 595 x 595mm, having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity <0.043 W/m K as per ASTM 518:1991, comprising of a frame made from especially fabricated galvanised mild steel sheet 0.50 mm thick pressed section (galvanizing @120 grams per sqm including both sides) i.e. vertical studs of size 48 x 34 x 36 mm are placed at 600mm center to center in a floor and ceiling channel section of size 50		

Code No.	Description	Unit	Rate
	<p>x 32m fixed to the floor and soffit at 600mm centers using 12mm dia,50mm long wedge type expanded zinc alloy dash fastner with 10mm bolt. This same channel is then to be fixed in horizontal direction at 600mm center to center so as to form a grid of 600mm x 600mm. Glasswool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13 x 3.2mm on to this grid leaving an even groove of 1 mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound and fiber joint tape roll 50mm wide (90 metre)roll and two coats of primer suitable for panelling as per manufacturer's specification as per direction of Engineer-in-Charge all complete.</p> <p>26.24.1 With 15 mm thick fully perforated square/butt edge light weight calcium silicate panels/ tiles</p>		
26.25	<p>Providing and fixing 15 mm thick false ceiling tiles at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,in true horizontal level on the existing frame work consisting of T-sections and Lsections suitably fixed according to tile size as per direction of Engineer-in-charge.</p>	sqm	2447.25

Code No.	Description	Unit	Rate
26.26	Providing & fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having moisture content less than 2%, humidity resistance of 99%, NRC0.50 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 (part 4)-1970 and light reflectance of 85% (minimum) to be laid in true horizontal level suspended on inter-locking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 15x32 mm of length 3000 mm, cross - T of size 15x32 mm of length 1200 mm and secondary intermediate cross-T of size 15x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall wood screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.		
26.26.1	With semi perforated 12 mm thick micro tegular edged GRG false ceiling tiles.	sqm	1401.75
26.26.2	With fully perforated 12 mm thick micro tegular edged or 10 mm thick square edged GRG false ceiling tiles.	sqm	1528.15
26.27	Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance > 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm		

Code No.	Description	Unit	Rate
	suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-incharge.		
26.27.1	With 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.6	sqm	1829.70
26.27.2	With 20 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.7)	sqm	2125.70
26.27.3	With 16 mm thick beveled tegular mineral fibre Anti- microbial false ceiling tile confirming to ISO 5 (class 100)	sqm	1957.10

REPAIR AND REHABILITATION ITEMS

26.28	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge		
26.28.1	75mm average thickness	sqm	162.80
26.28.2	50mm average thickness	sqm	110.35
26.28.3	25 mm average thickness	sqm	54.60
26.29	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.		
26.29.1	Bars upto 12 mm diameter	metre	4.65
26.29.2	Bars above 12 mm diameter	metre	9.30

Code No.	Description	Unit	Rate
26.30	Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm upto 200mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/balconies including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.		
	26.30.1 Upto and including 12mm dia.	each	79.65
26.31	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.		
	26.31.1 SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	sqm	96.65
	26.31.2 Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	sqm	388.50
26.32	Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge. Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal instrument and/or the 75mm size cube crushing strength at the end of 28 days to be not less than 30 N/Sqm).		
	26.32.1 12 mm average thickness.	sqm	210.10
	26.32.2 25 mm average thickness in 2 layers.	sqm	348.70
	26.32.3 50 mm average thickness in 3 layers.	sqm	697.40
26.33	Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members having minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness.		

Code No.	Description	Unit	Rate
<p>Note: Rates shall be for finished surface area of concrete and shall include the cost of labour, concrete and appropriate approved Super- Plasticiser for rendering concrete as flowable and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)</p>			
26.33.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	456.95
26.33.2	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	685.40
26.34	<p>Providing and laying SBR Polymer modified (of approved make @ minimum 2% by wt. of cement used) plain/reinforced concrete jacket for the structural members e.g. columns, pillars, piers, beams etc with concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness all-round existing core of RCC member.</p> <p>Note: Rates shall be for finished surface area of concrete and shall include the cost of making holes in existing RCC slab, if required, for pouring concrete in shuttering mould of jacket and appropriate approved Super-Plasticiser for rendering concrete as flowable self compacting and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)</p>		
26.34.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	456.95
26.34.2	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	685.40
26.34.3	100mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	913.85

Code No.	Description	Unit	Rate
26.35	Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honeycomb area of concrete/ masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in-Charge. (The payment shall be made on the basis of actual weight of approved grout injected.)		
26.35.1	Stirrer mixed Acrylic Polymer of approved make @ 2% of weight of cement used) modified Cement slurry made with non shrink compound in concrete/RCC work	kg	84.55
26.35.2	Stirrer mixed SBR Polymer (of approved make) modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work.	kg	88.80
26.35.3	Epoxy injection grout in concrete/RCC work of approved make	kg	789.00
26.36	Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the Engineer-in-charge.		
26.36.1	Wooven PVC cloth	sqm	45.50
26.37	Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in charge.	sqm	267.65
26.38	Shotcreting R.C.C. columns, beams and slabs etc. in layers with approved design mix concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10 mm maximum size in proportion as per design criteria] including the cost of centering and shuttering at edges and corners etc. as directed by Engineer- in-Charge Note: Rates shall include the providing necessary ground wires etc. The levelling gauges, if used, shall be paid for separately. Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/ tapping with a blunt metal instrument.		
26.38.1	25mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	488.30
26.38.2	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	810.50

Code No.	Description	Unit	Rate
26.38.3	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	1194.25
26.39	Providing and inserting 12mm dia galvanised steel injection nipple in honey comb area and along crack line including drilling of holes of required diametre (20mm to 30mm) up to depth from 30mm to 80mm at required spacing and making the hole & crack dust free by blowing compressed air, sealing the distance between injection nipple with adhesive chemical of approved make and allow it to cure complete as per direction of Engineer-In-Charge.	each	162.15
26.40	Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.	sqm	729.25

NEW TECHNOLOGY ITEMS

26.41 Designing, providing, installing and fixing factory finished custom designed cold form Light Gauge Steel Framed super structure comprising of steel wall panel, trusses, purlins etc manufactured out of minimum 0.75 mm thick steel sheet as per design requirements. The steel sheet shall be galvanized (AZ-150gms Aluminium Zinc Alloy coated steel having minimum yield strength 300-550 Mpa) conforming to AISI specifications and IBC 2009 for cold formed steel framing and construction and also as per IS: 875-1987, ISO 800-1984 and IS:801- 1975. The wind load shall be as per provisions of IS 875 (part -III). LGSFS frame shall be designed as per IS: 801 using commercially available software such as Frame CAD Pro-11.7 / STAAD PRO-V8i / Architek V 2.5.16 / Revit architecture -2011 or equivalent. Proper usage of ConnectionAccessories like Heavy Duty Tension Ties, Light Duty Hold-ons, Twist Straps (to connect truss with wall frames), Strong Tie, Tie Rod, H-Brackets, Boxing Sections, L-Shaped Angles for better structural stability. The framing section shall be cold form C-type having minimum web depth 89 mm x 39mm flange x 11mm lip in required length as per structural design

Code No.	Description	Unit	Rate
	<p>requirement duly punched with dimple / slot at required locations as per approved drawings. The slots will be along centre line of webs and shall be spaced minimum 250mm away from both ends of the member. The frame can be supplied in panelized or knock down condition in specific dimensions and fastened with screws extending through the steel beyond by minimum of three exposed threads. All self drilling tapping screws for joining the members shall have a Type II coating in accordance with ASTM B633(13) or equivalent corrosion protection of gauge 10 & 12, TPI 16 & 8 of length 20mm. The frames shall be fixed to RCC slab or Tie beam over Neoprene rubber using self expanding carbon steel anchor bolt of dia as per approved drawings. design subject to minimum 12mm diameter and 121mm length conforming to AISI 304 and 316 at 500mm c/c with minimum embedment of 100mm in RCC (RCC to be paid separately) and located not more than 300mm from corners or termination of bottom tracks complete in all respects. The item also includes the submission of stability reports duly examined and issued by any NIT/IIT. The rate includes the concept design, detailed design, fabrication of sections, transportation, installation and all required fixing arrangement at site as described above.</p>	kg	203.90
26.42	<p>Providing and fixing of external wall system on Light gauge steel frame work with . Outer face having 6mm thick heavy duty fiber cement board fixed on 9mm thick heavy duty fiber cement board confirming to IS 14862:2000, category IV type A (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make. A grove of 2 mm to 3mm shall be maintained and groves shall be sealed with silicon based sealant. The board shall be fixed in a staggered pattern. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm and internal face 12.5mm thick gypsum plaster board fixed on 8mm thick fiber cement board confirming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make, proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately).</p>	sqm	3118.75

Code No.	Description	Unit	Rate
26.43	Providing and fixing internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately)	sqm	1949.25
26.44	Providing and fixing in all exterior face panels breathable vapour barrier underneath the cement fiber board as per National Building Code 2009 complete as per direction of Engineer-in-charge.	sqm	278.00
26.45	Supplying and installation of moisture resistant/fire resistant 6 mm thick Heavy duty fiber cement board (High pressure steam cured) conforming to IS 14862:2000 of category III type B as per standard sizes fixed with self-drilling / taping screws. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm.	sqm	1018.85
26.46	Providing and fixing in position, 200 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shotcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by 2 welding (at an angl ranging from 50-70 degree) . The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting / guniting equipment etc at a pressure not less than 1 bar (100Kn/m2) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Enaineer-in-charge.	sqm	3828.50

Code No.	Description	Unit	Rate
26.47	<p>Providing and fixing in position, 230mm thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of panel, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20kg/ per cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1: 3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} à with the help of shotcreting equipment etc at a pressure of not less than 1 bar (100Kn/m²) and surface finished with trowel. The top face of the panel shall be provided and finished by applying 70-75 mm thick layer of cement concrete 1:1.5: 3 (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size). Fixing operations of roof/floor panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.</p>	sqm	3994.35
26.48	<p>Providing and fixing of customized aluminium formwork for monolithic construction RCC members with a repetitive usage of 100 times using grade 5052 aluminium of panel sheets of minimum 4 mm thick and grade 6061 (Type-6) aluminium for extruded sections. The form work includes of beam components i.e. beam side panel, prop head for soffit beam, beams soffit panel, beam soffit bulk head and deck components i.e. deck panel, deck prop, prop length, deck mid, soffit length, deck beam bar and wall components i.e. wall panel, rocker, kiker and internal soffit corner, external soffit corner, external corner, internal corner etc. The panels are held in position by a simple pin and wedge system that passes through holes in the out side rib of each panel. The tolerance of finished panels to be (-1 mm), and shall conform to IS 14687-1999. Pins and wedges to be made of high grade mild steel, all complete as per direction of Engineer-in- charge. (Cost of RCC work shall be paid separately) in-charge.</p>	sqm	169.95

Code No.	Description	Unit	Rate
26.49	<p>Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core panels made of core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum) adhesive, cement, sand, flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each. Panel shall be laid on 6mm thick cement mortar (1 cement: 2 fine sand) mixed with chemical adhesive of 0.5kg per 50kg of cement or shall be preferably fixed into 'C' channel made of 1.2mm thick MS plate screwed/fastened to the slab/column/ beam etc. The panel shall be fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "C channel" which will be paid separately).</p>		
26.49.1	Non load bearing panels 50mm thick of required size	sqm	1117.55
26.49.2	Non load bearing panels 60mm thick of required size	sqm	1271.75
26.49.3	Non load bearing panels 75mm thick of required size	sqm	1556.20
26.49.4	Non load bearing panels 90mm thick of required size	sqm	1866.00
26.49.5	Non load bearing panels 100mm thick of required size	sqm	2209.30

Code No.	Description	Unit	Rate
26.50	<p>Providing and fixing in position factory made non asbestos fibre reinforced aerated cement sandwich wall/roof/floor light weight solid core panels made of light weight cement concrete core composed of OPC cement, pulverized flyash, quick lime, cotton pulp & Gypsum in mortar state mixed with aeration agent in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000. These solid wall panels are installed using Galvanized iron steel tracks/C channel of 1mm thick of required sizes as recommended by manufacturer's and fixed to floor and RCC soffit in plumb to each other with steel screw/ fasteners. The panel shall be fixed vertically with tongue & groove joint with cement based polymer modified jointing compound. The exposed surface finished with fibre mesh/glass fibre tape with polymer based jointing compound having superior flexibility. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "tracks/C channel" which will be paid separately).</p>		
26.50.1	Non load bearing panels 50mm thick of required size (minimum 4mm thick fibre cement board)	sqm	1199.05
26.50.2	Non load bearing panels 75mm thick of required size (minimum 5mm thick fibre cement board)	sqm	1416.80

Code No.	Description	Unit	Rate
26.51	<p>Supplying of standard quality GFRG panel of 124 mm thickness with modular cavities purchased from GFRG panel manufacturing plant in the country, cut to required wall sizes and floor/ roof slab sizes in correct length and height, including cutting of door, window and ventilator opening as per the cutting drawing prepared by architects /design engineers for the construction of GFRG building and loaded in stillages for transportation to the construction site. Cost of panel includes security deposits, hire charges of stillages & jaws, cost of transportation in trucks/ lorries without any damages upto 300kms including all leads and lifts from GFRG manufacturing plant to construction site and unloading at site using suitable fork lift/ crane. (Payment shall be made on the basis of area of one side of panel without reduction of opening of door/ window / ventilator). For transportation above 300kms, additional charges to be paid.</p>		
26.52	<p>Erection of GFRG Panels in walls in all floors using suitable crane as per instructions of Engineer-in-Charge, as per cutting drawings and structural drawings, in perfect line and plumb, above RCC plinth beam/GFRG panel below and provide necessary lateral/ slanting support to keep the wall panel in safe position, providing & tieing of Reinforcement as per structural drawings and applying a coat of water repellent coating Zycosil/equivalent or equivalent product (1 Zycosil/ equivalent compound :10 water) to saturation level over RCC plinth beam to provide water proofing treatment to joint between wall panel & plinth beam as per the guide lines / instruction by the engineer in charge. (Cost of reinforcement, water proofing of walls and plinth beam/GFRG panel below joints and</p>	sqm	1305.60

Code No.	Description	Unit	Rate
26.53	<p>installation of door/ window frames before filling of concrete shall be paid separately). The rate quoted shall include making provision for laying of lintels, beams, sunshades, staircase beams, lofts, plumbing work, electrical conduits and any structural insertion etc., as per the drawing and direction of the engineer in charge. The payment shall be made based on the actual exposed area (one side only) of the panel. The work shall be carried out as per the Special Conditions For Glass Fibre Reinforced Gypsum (GFRG) Structures mentioned in NIT. Note: i) When cutting panel, "A" side is to be for outside or external surface of respective external wall and B side is to be for internal surface of wall ii) Erection of panel is to be with reference to both building plan & cutting drawing by following notational mark indicated in the cutting drawing as well as notional mark written on each panel cut as per cutting drawing</p>	sqm	251.90
26.54	<p>Filling of empty cavities (as shown in the structural design drawing) with quarry dust mixed with 5% cement (by volume). After initial infill of 50 mm thick with M25 concrete at base/ bottom of cavities to seal off, infill wall panel cavities in 3 stages as detailed below, (i) 1st pour / infill to be limited to 0.3 to 0.50 m height from bottom of the panel. (ii) 2nd Pour/ infill: infilling shall be done only after 90 minutes interval between successive pours. The maximum height of infill shall be restricted to 1.5m height or up to the top level of door / window. (iii) 3rd pour/infill: After an interval of 90 minutes of second pour, infill or pour the balance height up to the bottom of embedded RCC tie beam. Pour enough water just required to dampen the dry mix enough to form cake form after each stage. (cost of laying M25 concrete shall be paid separately) (If any rain falls in between any stages of concrete pour, make sure to cover the panel top to prevent ingress of water or water falling into the cavities. In case of water collection over the concrete inside the panel, drill 10mm hole in GFRG panel immediately above concrete filled level to drain out water before pour/in-fill of balance concreting)</p>	cum	2239.55
26.54	<p>Laying of GFRG panel as roof / floor slab panel and staircase panel using suitable crane as per instructions of Engineer-in Charge, including providing support system with 25mm x 300mm-400 mm wide plywood, as runner with proper prop below proposed micro beams including</p>		

Code No.	Description	Unit	Rate
26.55	<p>(a) Cutting of top flange of panel to 180 mm wide (leaving 25mm projection on either side) to provide RCC embedded micro beam as per cutting drawings and structural drawings.</p> <p>(b) Reinforcement for micro beams and tie beams to be provided in position with proper anchorage as per structural drawings.</p> <p>(c) Provision for Electrical cabling, fan hooks and laying of pipes for plumbing work.</p> <p>(d) Concreting of Tie beam, micro beam and top of GFRG panels (50 mm thick) with M-25 cement concrete mix using coarse aggregate of size less than 20 mm including laying of 10 gauge 100x100 size weld mesh with 25 mm effective cover from the panel top.</p>	sqm	236.45
26.56	Supplying and fixing 10 Gauge weld mesh of size 100mm x100 mm for floor/roof slab concrete screed over the micro beams as reinforcement. The weld mesh shall be fixed as per drawing.	sqm	223.65
26.57	Application of ZMB 60/equivalent solution (100 Kg ZMB 60/ equivalent, 1 litre ZMB Nano Thinner, 20 litre water & 1 Litre Zycoprime/equivalent = 122 litre/kg) over already applied coat of Zycosil / equivalent & Zycoprime/equivalent solution on the top of all the RCC plinth beams by brush/spray coat before erection of GFRG over RCC plinth beams in GF. In the case of upper floors 150 mm wide on floor slab for all the external walls, bath/toilet/wet areas (3 hrs drying time) before erection of wall panel on upper floors including erection of parapet wall.	sqm	227.55
26.58	After erection of GFRG wall panels, seal all GFRG wall joints with paper tape temporarily. Water proofing treatment of vertical joints with Zycosil/equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres) with 50 ml syringe till the gap and in filled concrete is completely saturated. After removing the paper seal, seal off the vertical joints with water proofing material "Grout RW/ equivalent " (Sealing cost excluded.)	metre	66.65
	Filling of joints between RCC plinth beam / floor slab and wall panel of external walls, toilet / bath room / wet areas walls on all floor and parapet wall over roof slab, stair case head room at the time of erection of GFRG panels with Grout RW/ equivalent sealant compound after the erection of panel before the infill of concrete in panel cavities and fine finish. This applies for all horizontal and vertical joints between GFRG wall and slab panels.	metre	28.65

Code No.	Description	Unit	Rate
26.59	Water proofing treatment of Vertical joints (of external side and internal side) between door frame, window & ventilator frames (on all four sides) of outer wall over the Zycosil/ equivalent & Zycoprime/equivalent solution already applied (before the installation of door / window / ventilator frames in position) and fine finish with Grout RW/equivalent.	metre	29.45
26.60	Water proofing treatment of RCC sunshade with Zycosil/ equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres)) till it meets the saturation level and testing as per RILEM or by water drops test in which water drops do not absorb but drops remain or rolls.	sqm	106.05
26.61	In-filling / sealing of joint between RCC lintel cum sunshade and wall (on external side) in all floors by pushing in Grout RW/equivalent in paste form and coving 20 mm x 20 mm after applying a coat of Zycosil/equivalent & zycoprime/equivalent solution before cement plastering of top, bottom and sides of RCC sunshade.	metre	40.40
26.62	Designing, Providing, installing and fixing factory finished customed design pregalvanized high tensile steel joists manufactured from G350 Z275 confirming to IS:277-1992, minimum coating of galvanizing 275 gm/sqm, minimum yield stress 35 MPa & minimum tensile strength of 380 MPa placed 1.23 metre apart to support the load of slab etc as per the design & directions of Engineer-in-Charge.	kg	131.65
26.63	Providing and fixing special adjustable lockbars of mild steel E-250 to support the temporary plywood for work between joists during construction as per design & directions of the Engineer- in-charge.	kg	12.55
26.64	Centering and shuttering with 12mm thick shuttering plywood confirming to IS 4990:2011 and removal of form at all heights. Plywood will be supported on lock bars.		
26.64.1	Suspended floors, roofs, landings, balconies and access platform.	sqm	81.25
26.65	Providing and fixing roofing consist of 0.8 mm thick galvanized steel deck sheet confirming to IS 277:1992 used as permanent shuttering over which MS wire mesh 3mm laid at 100x100 mm grid including edge trim covered with concrete. This metal deck will be supported on structural steel beam with shear studs. (Structural steel like Beam, column, joists etc. & concrete of different grade as per design will be paid separately).	sqm	1408.60

Code No.	Description	Unit	Rate
26.66	<p>Providing and fixing in position, 130 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shotcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia zinc coated G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall and connected by GI wire of 3mm dia at alternate row by welding. The EPS core shall consist of 60 mm thick EPS of density not less than 16 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 35 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting / guniting equipment etc at a pressure not less than 1 bar (100KN/m²) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer- in-charge.</p>	sqm	2295.15
26.67	<p>Providing and fixing of external thermal insulation and composite system with First layer of self-extinguishing type Expanded Polystyrene (EPS) insulation boards of 120 mm thick (max 1mX0.5m section), confirming to IS 4671:1984, having thermal conductivity of 0.034 W / mK, (measured as per IS 3346-1980), density of 20-24 kg / m³ measured as per IS 5688-1982, Fire retardant property self-extinguishing type as per EN 13501- 1, bonded with special polymer modified cementitious adhesive confirming to EOTA ETAG 004 (European Technical Approval) formulated to bond polystyrene insulation boards to typical mineral substrate (according to ETAG 004) and Polypropylene mechanical fasteners with plastic pin confirming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm on finished level wall and the junction between two adjacent EPS boards to be sealed with low expansion moisture cure Polyurethane Foam.</p>		

Code No.	Description	Unit	Rate
	Second layer consists of Fiberglass mesh covered with alkali-resistant coating, mass per unit area > 145 gm/m ² , mesh size: 3.9x4.0 mm ±10% embedded in special polymer modified cementitious Base Coat with hydrophobes and the corners will be protected with Corner-beads with alkali-resistant mesh wings at least 10 cm wide, mesh mass per unit area min 145 gm/m ² . The surface will be levelled, finished, made smooth complete in all respect as per manufactures specification and as per directions of Engineer-in-Charge.		
26.68	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:	sqm	3076.70
26.68.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5140.85
26.69	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level		
26.69.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6197.05
26.70	Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:		
26.70.1	Cement mortar 1:4(1 cement : 4 coarse sand)	sqm	582.60
26.71	Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level:		
26.71.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	674.35
26.72	Providing and laying 60mm thick factory made cement concrete paver block of approved shape and colour of M -30 grade made of C&D waste by block making machine with vibratory compaction laid in required pattern and including over 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in- charge.	sqm	663.30

PREFAB/PRECAST TECHNOLOGY

Code No.	Description	Unit	Rate
26.73	Fabrication & Manufacturing of Prestressed Hollow Core slab (Hollow area 25 to 30%) of different thickness & modular width 1200 mm in Controlled Factory Environment with approved methodology conforming to IS : 10297- 1982 by using long line casting method having arrangement of proper steel bed. Concreting should be done by batch mixing plant capable of producing zero slump concrete, transported through automatic shuttels of standard make & layed on bed with the help of extruder/Slipformer, finishing, curing and also provision of steam curing. Cutting, making necessary cutout/holes of required sizes for services in slab element after achieving required strength, yard handling & stacking all complete as per approved shop drawings & design mix as per the direction of the Engineer-in-charge. (Cost of strands should be paid separately).		
26.73.1	Concrete Grade-M-40 (cement content 400 kg)		
26.73.1.1	100 mm thick hollow core slab	metre	954.05
26.73.1.2	120 mm thick hollow core slab	metre	1119.60
26.73.1.3	150 mm thick hollow core slab	metre	1367.95
26.73.1.4	200 mm thick hollow core slab	metre	1672.35
26.73.1.5	250 mm thick hollow core slab	metre	2058.85
26.73.1.6	300 mm thick hollow core slab	metre	2445.40
26.73.1.7	350 mm thick hollow core slab	metre	2831.90
26.73.1.8	400 mm thick hollow core slab	metre	3218.40
26.73.2	Extra for using M-50 (Cement content 425 kg) instead of M-40		
26.73.2.1	100mm thick hollow core slab	metre	17.30
26.73.2.2	120mm thick hollow core slab	metre	20.80
26.73.2.3	150mm thick hollow core slab	metre	26.00
26.73.2.4	200mm thick hollow core slab	metre	32.35
26.73.2.5	250mm thick hollow core slab	metre	40.40
26.73.2.6	300mm thick hollow core slab	metre	48.50
26.73.2.7	350mm thick hollow core slab	metre	56.60

Code No.	Description	Unit	Rate
26.73.2.8	400mm thick hollow core slab	metre	64.65
26.73.3	Extra for using M-60 (Cement content 440 kq) instead of M-40		
26.73.3.1	100mm thick hollow core slab	metre	27.70
26.73.3.2	120mm thick hollow core slab	metre	33.25
26.73.3.3	150mm thick hollow core slab	metre	41.55
26.73.3.4	200mm thick hollow core slab	metre	51.70
26.73.3.5	250mm thick hollow core slab	metre	64.65
26.73.3.6	300mm thick hollow core slab	metre	77.65
26.73.3.7	350mm thick hollow core slab	metre	90.55
26.73.3.8	400mm thick hollow core slab	metre	103.50
26.74	Fabrication and manufacturing of solid precast concrete element with provisions of shear keys, connecting loops, dowel tubes and proper lifting accessories for walls, beams, slabs, stairs, column etc, of various thickness, shape and size of different concrete grades manufactured in controlled factory environment with approved methodology including moulds (Pallet system, Tilts form, table moulds, battery moulds, vertical moulds, beam moulds, column moulds, staircase moulds, Facade mould, etc.), mixing, transporting and placing of concrete, vibrating, curing, finishing, making necessary cutout/ holes of required sizes for services, yard handling & stacking all complete as per IS 11447:1985 and as per approved shop drawings and design mix as per the direction of Engineer-in- Charge (Cost of reinforcement, Mechanical, Electrical and Plumbing inserts will be paid separately).		
26.74.1	Concrete grade M-35 (Cement content 370 kqs)	cum	15282.15
26.74.2	Extra for using M-40 (Cement content 400 kq) instead of M-35	cum	230.95
26.74.3	Extra for using M-50 (Cement content 425 kq) instead of M-35	cum	423.45
26.74.4	Extra for using M-60 (Cement content 440 kq) instead of M-35	cum	538.95
26.75	Providing & laying in position Prestressing steel strands (low relaxation) on hollow core bed by using mechanical pulling arrangement like Rabbit/ Bed master including all accessories for Stressing & destressing operations as per approved make conforming to IS1343 & grade FY-1860 etc, complete as per drawings and direction of Engineer -in-charge.	kg	141.00

Code No.	Description	Unit	Rate
26.76	Transportation of Precast Elements by flat bed Trailor (Double / Triple axle 40ft Length with proper accessories like A frame etc) from factory, including the cost of loading , unloading & stacking at site with the help of required capacity cranes.		
26.76.1	Lead within 15km	MT	427.85
26.76.2	Add/Deduct over item 26.76.1 for every additional lead of 5 km	MT	97.20
26.77	Erection & Installation of Precast/Prestressed Concrete elements in correct & final position with proper line level and plumb at site making all arrangements (i.e cranes, push-pull jacks & all another T & P for lifting Placing & Alignment of elements, within erection tolerance as per IS 15916 as per approved shop drawings and all complete as per the direction of Engineer-in-Charge but excluding the cost of sim pads, non shrink grout and steel works i.e hangers. All work up to fifth floor.		
26.77.1	Prestressed hollow core Slab up to 200 mm thickness	sqm	139.50
26.77.2	Prestressed hollow core slab above 200 mm up to 400 mm thickness	sqm	250.45
26.77.3	Solid concrete wall elements	cum	1785.95
26.78	Providing & Applying weather proof sealant on outer joints of approved make confirming to IS & directed by Engineer-in- charge.		
26.78.1	Sealant 25mmx10mm at joints	metre	137.00
26.79	Providing & Laying of levelling sim pads required sizes (5x5cm to 10x10cm) of PVC / Rubber to adjust level of bearing surface of supporting members as per the direction of Engineer in charge.		
26.79.1	2mm thick	each	20.15
26.79.2	5 mm thick	each	26.85
26.79.3	10 mm thick	each	40.20
26.80	Providing & Grouting of dowel tubes / Shear keys / Joints of precast members with M-60 grade cementitious grout (Non Shrink) of approved make by suitable means (Free flowing / pump),curing etc. Complete as per directions of Engineer-in- charge. (The payment shall be made on the basis of actual weight of approved grout injected.)		
26.80.1	Stirrer mixed cementitious grout (non shrink) of approved make in dowel tubes / Shear keys / Joints of precast members.	kg	69.80

Code No.	Description	Unit	Rate
26.81	Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100gm/sqm and shading coefficient minimum 75% around the construction site/ for vertical extension as per requirement including fastening/tying with building/scaffolding pipes or with any other fixtures etc. complete as per direction of Engineer-in-Charge. (One time payment shall be made for providing Scaffolding net from start of work till completion of work including shifting if any. The Scaffolding net shall be the property of the contractor on completion of the work)	sqm	23.10

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

3.0 MORTAR

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
3.1	Cement Mortar 1:1 (1 cement : 1 fine sand).	cum	10.20
3.2	Cement mortar 1:2 (1 cement : 2 fine sand).	cum	6.80
3.3	Cement mortar 1:3 (1 cement : 3 fine sand).	cum	5.10
3.4	Cement mortar 1:4 (1 cement : 4 fine sand).	cum	3.80
3.5	Cement mortar 1:5 (1 cement : 5 fine sand).	cum	3.10
3.6	Cement mortar 1:6 (1 cement : 6 fine sand).	cum	2.50
3.7	Cement mortar 1:2 (1 cement : 2 coarse sand).	cum	6.80
3.8	Cement mortar 1:3 (1 cement : 3 coarse sand).	cum	5.10
3.9	Cement mortar 1:4 (1 cement : 4 coarse sand).	cum	3.80
3.10	Cement mortar 1:5 (1 cement : 5 coarse sand).	cum	3.10
3.11	Cement mortar 1:6 (1 cement : 6 coarse sand).	cum	2.50
3.12	Cement mortar 1:2 (1 cement : 2 stone dust).	cum	6.80
3.13	Cement mortar 1:2 (1 cement : 2 marble dust).	cum	6.80
3.14	Cement mortar 1:5 (1 cement : 5 marble dust).	cum	3.10
3.15	White cement mortar 1:2 (1 white cement : 2 marble dust).	cum	6.80*
3.16	White cement mortar 1:3 (1 white cement : 3 marble dust).	cum	5.10*
3.17	White cement mortar 1:5 (1 white cement : 5 marble dust).	cum	3.10*

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

4.0 CONCRETE WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
CEMENT CONCRETE (CAST - IN- SITU)			
4.1	P/L cement concrete - all works upto plinth level :		
4.1.2	1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	4.00
4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	3.20
4.1.4	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	cum	3.20
4.1.5	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	cum	2.20
4.1.6	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	cum	2.20
4.1.8	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	cum	1.70
4.1.10	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	cum	1.30
4.1.11	1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)	cum	1.30
4.1.12	1:2:3½:9 (1 ordinary portland cement : 2 Fly ash : 3½ coarse sand : 9 graded stone aggregate 40 mm nominal size)	cum	1.70
4.1.13	1:2½:4:11 (1 ordinary portland cement : 2½ fly ash : 4 coarse sand : 11 graded stone aggregate 40 mm nominal size)	cum	1.30
4.2	P/L cement concrete in retaining walls, return walls etc.		
4.2.2	1:1½:3 (1 cement:1½ coarse sand:3 graded stone aggregate 20 mm nominal size)	cum	4.00
4.2.3	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	3.20
4.2.5	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	cum	2.20
4.2.8	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	cum	1.30
4.4	P/L cement concrete in kerbs, steps etc.:		
4.4.1	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	4.00

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
CEMENT CONCRETE (PRE-CAST)			
4.5	4.5.1 1:1½:3 (1 cement:1½ coarse sand:3 graded stone aggregate 20 mm nominal size)	cum	4.05
4.6	P/L precast cement concrete in kerbs, edgings etc.:		
	4.6.1 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	4.05
4.7	P/L precast cement concrete solid blocks:		
	4.7.1 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	4.56
4.8	P/L precast cement concrete hollow blocks:		
	4.8.1 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	2.899
4.9	Precasting and placing in position 125 mm dia Bollards 600 mm high.	each	0.097
DAMP- PROOF COURSE			
4.10	P/L D.P.C. 40 mm thick with C.C. (1:2:4).	sqm	0.13
4.11	P/L D.P.C. 50 mm thick with C.C. (1:2:4)	sqm	0.16
MISCELLANEOUS			
4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6	sqm	0.11
4.19	P/L Ready mixed concrete using flyash:		
	4.19.1 All works upto plinth level		
	4.19.1.1 M-15 grade plain cement concrete	cum	2.40
	4.19.1.2 M-10 grade plain cement concrete	cum	2.20
	4.19.2 All works above plinth and upto floor V level		
	4.19.2.1 M-15 grade plain cement concrete	cum	2.40
	4.19.2.2 M-10 grade plain cement concrete	cum	2.20
4.20	P/L ready mix plain cement concrete		
	4.20.1 4.20.1 All works upto plinth level		
	4.20.1.1 M-15 grade plain cement concrete	cum	2.40
	4.20.1.2 M-10 grade plain cement concrete	cum	2.20
	4.20.2 All works above plinth and upto floor V level		
	4.20.2.1 M-15 grade plain cement concrete	cum	2.40
	4.20.2.2 M-10 grade plain cement concrete	cum	2.20

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
5.0 REINFORCED CEMENT CONCRETE

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
CAST-IN-SITU			
5.1	P/L R.C.C. upto plinth level :		
5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	4.00
5.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	3.2
5.2	R.C.C work in walls etc.:		
5.2.2	(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	4.00
5.3	R.C.C. (1:1.5:3) work in beams etc.	cum	4.00
5.4	R.C.C. (1:1.5:3) work in kerbs, steps etc.	cum	4.00
5.5	R.C.C. (1:1.5:3) work in arches,domes etc.	cum	4.00
5.6	R.C.C. (1:1.5:3) work in chimneys & shafts.	cum	4.00
5.7	R.C.C. (1:1.5:3) work in well-steining.	cum	4.00
5.8	R.C.C. (1:1.5:3) work in vertical and horizontal fins individually or forming box louvers, facias and eaves boards.	cum	4.00
PRE - CAST R.C.C.			
5.12	P/F precast R.C.C. (1:1.5:3) work in string courses, bands, copings, bed plates, anchor blocks, plain window sills etc.	cum	4.00
5.13	P/F precast R.C.C. (1:1.5:3) in small lintels not exceeding 1.5m clear span.	cum	4.00
5.14	P/F precast R.C.C. (1:1.5:3) in mouldings as in cornices, windows sills etc.	cum	4.00
5.15	P/F precast R.C.C. (1:1.5:3) in lintels, beams and bressumers etc.	cum	4.00
5.16	P/F precast R.C.C. (1:1.5:3) in shelves.	cum	4.05
5.17	P/F precast R.C.C. (1:1.5:3) in vertical & horizontal fins individually or forming box louvers.	cum	4.00
5.18	Fixing precast cement concrete Jali (1:2:4).		
5.18.1	50 mm thick	100 sqm	1.64*
5.18.2	40 mm thick	100 sqm	1.64*
5.18.3	25 mm thick	100 sqm	1.64*

*** Cement for fixing only.**

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
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ENCASING ROLLED STEEL SECTION

5.19	Encasing rolled steel sections, in beams and columns, with cement concrete (1:1.5:3).	cum	4.00
5.20	Encasing rolled steel section in grillages with cement concrete (1:1.5:3).	cum	4.00

MISCELLANEOUS

5.23	Smooth finishing of exposed surface of R.C.C. work with 6 mm thick cement mortar (1:3).	100 sqm	3.67
5.24	Rendering smooth the top of suspended floors, landings and staircases with cement mortar (1:2).	100 sqm	4.17
5.27	Providing and filling in position bitumen mix filler.	cum	0.032

DESIGN MIX CONCRETE

5.33	P/L Design mix concrete (M-25).	cum	3.30*
5.34	Extra for providing richer mixes at all floor levels :		
5.34.1	Providing M-30 grade concrete instead of M-25 grade B.M.C/ R.M.C.	cum	0.10*
5.34.2	Providing M-35 grade concrete instead of M-25 grade B.M.C./ R.M.C.	cum	0.20*
5.34.3	Providing M-40 grade concrete instead of M-25 grade B.M.C./ R.M.C.	cum	0.30*
5.36	P/F precast R.C.C. in waffle units.	cum	4.16*
5.37	P/L RMC manufactured in fully automatic batching plant M-25 grade R.C.C.	cum	3.30*
5.40	P/L design mix cement concrete M-25 using Fly ash.	cum	3.30*

*** Actual weight for design mix will be worked out taking into consideration the cement requirement as per particular mix design**

5.47.1	P/F factory made precast RCC M-40 doors & windows	metre	0.049
5.47.2	P/F factory made precast RCC M-40 doors & windows	metre	0.044
5.47.3	P/F factory made precast RCC M-40 doors & windows	metre	0.041
5.48	Providing and laying RCC for construction of piers abutments portal frames etc.	cum	4.80
5.49	Constructing cast insitu RCC diaphragm wall by providing	cum.	4.14

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1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

6.0 MASONRY WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
6.1	Brick work in foundation & plinth with non modular bricks.		
6.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.95
6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	0.625
6.2	Brick work in foundation & plinth with modular bricks.		
6.2.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.836
6.2.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	0.55
6.3	Brick work with machine moulded perforated bricks.		
6.3.1	With non modular bricks.	cum	0.625
6.3.2	With modular bricks.	cum	0.55
6.4	Brick work in superstructure		
6.4.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.95
6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	0.625
6.7	Half brick masonry in cement mortar (1:3) for closing cavity 5 to 7.5 cm wide in cavity wall.	100 metre	3.86
6.8	Brick work 7 cm in cement mortar (1:3).	100 sqm	9.23
6.9 & 6.10	Brick work in plain & gauged arches in cement mortar (1:3).	cum	1.28

HALF BRICK MASONRY

6.12 & 6.13	Half brick masonry in foundations & plinth and superstructure.		
6.12.1	Cement mortar 1:3 (1 cement : 3 coarse sand) & 6.13.1	100 sqm	14.28
6.12.2	Cement mortar 1:4 (1 cement : 4 coarse sand) & 6.13.2	100 sqm	10.64

BRICK TILE WORK

6.16	Tile brick masonry in foundation and plinth. :		
6.16.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	1.52
6.16.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	1.00
6.17 & 6.18	Tile brick masonry with m/c moulded tiles in cement mortar 1:6 (1 cement : 6 coarse sand).	cum	1.00
6.20 & 6.21	Tile brick masonry with tile bricks in plain/gauged arches work in in cement mortar (1:4).	cum	1.33
6.22	Tile brick masonry work 5 cm thick in cement mortar (1:3).	100 sqm	7.65

HONEY COMB WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
6.23	Honey-comb brick work 10/11.4 cm thick in cement mortar 1:4.	100 sqm	6.56
EXPOSED BRICK WORK			
6.26	Brick work with selected bricks in cement mortar (1:6).	cum	0.625
6.27	Brick work with modular bricks in cement mortar (1:6).	cum	0.55
6.28	Brick work with machine moulded modular bricks in cement mortar (1:6).	cum	0.55
6.29	Brick work with m/c moulded F.P.S. bricks in cement mortar (1:6).	cum	0.625
6.30	Brick work with machine moulded perforated F.P.S. bricks in cement mortar (1:6).	cum	0.625
6.31	Brick work with machine moulded perforated modular bricks in cement mortar (1:6).	cum	0.55
6.32	Brick work with clay flyash F.P.S. brick		
	6.32.1 Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.95
	6.32.2 Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	0.625
6.34	Brick work with non modular fly ash bricks in		
	6.34.1 Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.95
	6.34.2 Cement mortar 1:6 (1 cement : 6 Coarse sand)	cum	0.625
6.35	Brick work with modular calcium silicate bricks machine moulded in		
	6.35.1 Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.836
	6.35.3 Cement mortar 1:6 (1 cement : 6 Coarse sand)	cum	0.55
6.36	Brick work with modular extruded burnt fly ash clay sewer bricks in :		
	6.36.1 Cement Mortar 1:4 (1 cement : 4 coarse sand)	cum	0.836
6.37	Brick work with modular extruded burnt fly ash clay sewer bricks in cement mortar (1:3).	cum	1.275
6.38	Autoclaved aerated cement blocks masonry with 100mm thick AAC blocks in cement mortar (1:4).	cum	0.57
6.44	Brick edging 7 cm wide in cement mortar (1:4).	100 metre	0.137
6.45	Half brick masonry with non modular fly ash bricks .		
	6.45.1 Cement mortar 1:3 (1 cement :3 coarse sand).	100 sqm	14.28
	6.45.2 Cement mortar 1:4 (1 cement :4 coarse sand).	100 sqm	10.64

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

7.0 STONE WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
RANDOM RUBBLE MASONRY			
7.1 & 7.2	Random rubble masonry with cement mortar (1:6).	cum	0.825
COURSED RUBBLE MASONRY			
7.6	Coursed rubble masonry (first sort) with :		
7.6.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	0.750
7.7	Coursed rubble masonry (second sort) with :		
7.7.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	0.750
ASHLAR MASONRY			
7.12	Stone work in plain ashlar in cement mortar (1:6) including pointing with white cement mortar (1:2).	cum	0.54
7.13 & 7.14	Stone work plain ashlar in arches/domes in cement mortar (1:3) including pointing with white cement mortar (1:2).	cum	1.07
7.15	Stone work ashlar punched in cement mortar 1:6 including pointing with white cement mortar (1:2).	cum	0.54
SUNK, MOULDED, CARVED ASHLAR MASONRY			
7.20	Stone work sunk and / or moulded including pointing with white cement mortar (1:2).	cum	0.54
MISCELLANEOUS STONE WORK			
7.26	P/F stone dowels 10x5x2.50 cm in cement mortar (1:2) .	each	0.007
7.28	P/F sloping chajja of stone 40 mm thick and upto 80 cm wide in cement mortar (1:4) i/c pointing in white cement mortar (1:2).	100 sqm	5.59
7.29	P/F horizontal chajja of stone 40 mm thick and upto 80 cm projection in cement mortar (1:4) i/c pointing in white cement mortar (1:2).	100 sqm	4.94 + 0.03*
7.30	P/F 30 mm red sand stone sun-shade with cement mortar 1:4 including finishing complete.	100 sqm	2.19
7.31	Providing and fixing red sand stone brackets 55x22.5x45cm.	100nos	3.02
7.32	Stone work, plain in copings, cornices, string courses etc. in Cement mortar 1:6 including pointing with white cement mortar (1:2).	cum	0.54
7.38	Stone tile work for wall lining with 12 mm thick bed in cement mortar (1:3).	sqm	10.44 + 1.70*

*** White cement**

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
8.0 CLADDING WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
8.1	Marble work 18 mm thick for wall lining in cement mortar 1:3 including pointing with white cement mortar 1:2.	100 sqm	8.16 + 1.63*
8.2	P/F 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters etc. laid over 20mm thick base cement mortar 1:4.	100 sqm	9.12
8.4	Extra for fixing marble /granite stone over and above corres- ponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive including cleaning etc. complete.	100 metre	1.27
8.7	P/F cramps in RCC/ CC backing with cement mortar 1:2		
8.7.1	Gunmetal cramps	kg	0.0635
8.7.2	Stainless steel cramps	kg	0.0701
8.9	Stone tile work for wall lining over 12mm thick bed of cement mortar (1:3) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.	100 sqm	10.44 + 1.90*
8.11	P/F machine cut mirror/edge polished	100 sqm.	8.16 + 3.30*
8.14	Stone work (machine cut edges) for wall lining etc. (veneer work) in cement mortar (1:3) including pointing in white cement mortar (1:2).	100 sqm	9.18 + 1.56*
8.15	P/F stainless steel cramps in stone wall lining in cement mortar (1:2).	kg	0.07
8.16	P/F copper pins 7.5 cm long 6 mm diameter in stone wall lining in cement mortar (1:2).	each	0.007
8.17	Wall lining butch work with Dholpur stone 40 mm thick, in cement mortar (1:3) including ruled pointing in cement mortar (1:2).	100 sqm	15.50 +1.70*
8.18	Stone work (machine cut edges) for wall lining with grout of 12 mm thick in cement mortar (1:3) and jointed with Cement mortar (1:2).	100 sqm	13.744
8.21	P/F structural steel frame (for dry stone cladding) embedded in brick wall with cement concrete block (1:2:4)	100kg	1.05
8.23	P/F 50x50x50 mm 2nd class teak wood plugs in cement mortar 1:3.	100 nos.	0.01
8.25	P/F 2nd class teak wood plain lining with wooden plugs	100 sqm	0.055
8.31	P/F 1st quality ceramic glazed wall tiles over 12 mm thick bed of cement Mortar (1:3) with grey cement slurry @ 3.3 kg/ sqm	sqm	0.1044

*** White cement**

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
9.0 WOOD AND P.V.C. WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
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MISCELLANEOUS - WOOD WORK

9.46	P/F curtain rods of 1.25mm thick chromium plated brass brackets with wooden plugs, etc.	100 metre	0.01
9.47	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets.	100 metre	0.01
9.53	Providing 40x5 mm flat iron hold fast 40 cm long with cement concrete block 30x10x15cm 1:3:6 mix. 100 nos 1.10	100 nos	1.10

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
10.0 STEEL WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
10.4	P/F 1 mm thick M.S. sheet sliding-shutters with frame.	100 sqm	0.35
10.5	P/F 1 mm thick M.S. sheet door with frame.	100 sqm	0.35
10.6	Supplying and fixing rolling shutters.	100 sqm	0.35
10.10.1 & 10.11.1	Fixing standard steel glaze door windows etc.	100 kg	0.13
10.13.1	P/F 'T' iron froms for doors windows & ventilators	100 kg	0.11
10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with 15x3 mm lugs 10 cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 mix.	100 kg	0.28

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
11.0 FLOORING

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
11.1	Brick on edge flooring.		
11.1.1	1:4 (1 cement : 4 coarse sand)	sqm	0.1850
11.1.2	1:6 (1cement : 6 coarse sand)	sqm	0.1285
11.3	Cement concrete flooring 1:2:4.		
11.3.1	40mm thick with 20mm nominal size stone aggregate	sqm	0.17
11.4	52 mm thick cement concrete flooring.	sqm	0.231
11.5	62 mm thick cement concrete flooring.	sqm	0.263
11.6	Cement plaster skirting with cement mortar (1:3).	sqm	0.14
11.7	Cement concrete pavement with C.C. (1:2:4).	cum	3.20
TERRAZO FLOORING			
11.9	40 mm thick marble chips flooring with under layer 34 mm thick cement concrete (1:2:4).		
11.9.1	Dark shade pigment with ordinary cement	sqm	0.1695
11.9.2	Light shade pigment with white cement	sqm	0.129+0.0405*
11.9.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	0.1492+0.0202*
11.9.4	White cement without any pigment	sqm	0.129+0.0202*
11.9.5	Light shade pigment with ordinary cement	sqm	0.1695
11.9.6	Ordinary cement without any pigment	sqm	0.1695
11.10	40 mm thick marble chips flooring with under layer 31mm thick cement concrete 1:2:4.	sqm	0.1783
11.10.1	Dark shade pigment with Ordinary cement	sqm	0.1205+0.0578*
11.10.2	Light shade pigment with white cement	sqm	0.1494+0.0289*
11.10.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	0.1205+0.0578*
11.10.4	White cement without any pigment	sqm	0.1783
11.10.5	Light shade pigment with ordinary cement	sqm	0.1783
11.10.6	Ordinary cement without any pigment	sqm	0.1783
11.11	40 mm thick marble chips flooring with under layer 28 mm thick cement concrete 1:2:4.	sqm	0.1907
11.11.1	Dark shade pigment with ordinary cement	sqm	0.1097+0.081*
11.11.2	Light shade pigment with white cement and 50% ordinary cement	sqm	0.1502+0.0405*

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
11.11.4	White cement without any pigment	sqm	0.1097+0.081*
11.11.5	Light shade pigment with ordinary cement	sqm	0.1097
11.11.6	Ordinary cement without any pigment	sqm	0.1097
11.12	Marble chips skirting :		
11.12.1	18 mm thick with under layer 12 mm thick in cement plaster 1:3 (1 cement : 3 coarse sand)	sqm	0.1292
11.12.1.1	Dark shade pigment with ordinary cement	sqm	0.0887+0.0405*
11.12.1.2	Light shade pigment with white cement	sqm	0.109+0.0203*
11.12.1.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	0.109+0.0405*
11.12.1.4	White cement without any pigment	sqm	0.1292
11.12.1.5	Light shade pigment with ordinary cement	sqm	0.1292
11.12.1.6	Ordinary cement without any pigment	sqm	0.1292
11.15	Crazy marble stone flooring		
11.15.1	18 mm thick crazy marble stone white, black or as specified	sqm	0.1200+0.0405*
TILE FLOORING			
11.16	Precast terrazo tiles 22mm thick in floors, and landings on 20mm thick bed of cement mortar (1:4).		
11.16.1	Light shade using white cement	sqm	0.0895+0.044*
11.16.2	Medium shade using 50%white cement and 50% ordinary cement	sqm	0.0917+0.0220*
11.16.3	Dark shade using ordinary cement	sqm	0.0939
11.16.4	Ordinary cement without any pigment	sqm	0.0939
11.18	Precast terrazo tiles 22 mm thick in skirting and risers of steps.		
11.18.1	Light shade using white cement.	sqm	0.0734+0.066*
11.18.2	Medium shades using 50% white cement and 50% ordinary cement.	sqm	0.1064+0.033*
11.18.3	Dark shade using ordinary cement	sqm	0.1394
11.18.4	Ordinary cement without any pigment	sqm	0.1394
11.19	Chequered terrazo tiles 22 mm thick in floors on 20 mm thick bed of cement mortar (1:4).		
11.19.1	Light shade using white cement	sqm	0.0895+0.044*
11.19.2	Medium shade using 50% white cement, 50% ordinary cement	sqm	0.0917+0.024*
11.19.3	Dark shade using ordinary cement	sqm	0.0939
11.19.4	Ordinary cement without any pigment	sqm	0.0939
11.20	Chequered precast cement concrete tiles 22 mm thick in foot path on 20 mm thick bed of cement mortar (1:4).		
11.20.1	Light shade using white cement	sqm	0.1291+0.066*
11.20.2	Medium shade using 50% white cement 50% Grey cement	sqm	0.1621+0.033*

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
11.21	11.20.3 Dark shade using ordinary cement 11.20.4 Ordinary cement without any pigment Providing and fixing 10mm thick acid and or alkali resistant tiles.	sqm	0.1951 0.1951
11.21.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)	sqm	0.0786**
11.21.2	11.21.2 Acid and alkali resistant tile In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)	sqm	0.0862**
11.22	11.22 Tile work in skirting, risers of steps etc. with 8 mm thick marble tile.	sqm	0.1044
	STONE FLOORING		
11.23	Marble stone flooring with 18 mm thick marble stone over 20 mm thick cement mortar (1:4).	sqm	0.13512
	KOTA STONE FLOORING		
11.26	Kota stone slab flooring over 20 mm thick bed of cement mortar (1:4).	sqm	0.1491
11.27	Kota stone slabs 20 mm thick in risers of steps, skirting etc. laid on 12 mm (average) thick cement mortar 1:3.	sqm	0.1374
	SAND STONE FLOORING		
11.28	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 with joints finished flush.	sqm	0.0775
11.29	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 including pointing with cement mortar 1:2.	sqm	0.0931
11.30	40 mm thick rubbed stone flooring over 20 mm (average) thick base of cement mortar 1:5 with joints 3mm thick, side buttered with cement mortar 1:2.	sqm	0.0931
	CERAMIC GLAZED TILES		
11.37	P/L ceramic glazed floor tiles laid on 20 mm thick Cement Mortar (1:4) with grey cement slurry @ 3.3 kg/ sqm	sqm	0.1242
11.38	P/L ceramic glazed floor tiles laid on 20mm thick bed of Cement Mortar (1:4) with grey cement slurry @ 3.3 kg/ sqm	sqm	0.1242
11.39 & 11.40	P/L rectified Glazed Ceramic floor tiles laid on 20mm thick cement mortar (1:4).	sqm	0.1242
	VITRIFIED FLOOR TILES		
11.41	P/L vitrified floor tile laid on 20mm thick cement mortar (1:4).	sqm	0.1242
11.44	Crazy ceramic tile flooring.	sqm	0.1046
11.46	P/L vitrified tile in skirting in cement mortar (1:3).	sqm	0.088

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
11.51	P/L Machine cut, Mirror polished, Italian Marble stone flooring	Sqm.	0.085 + 0.05*
11.52	P/L Machine cut Mirror polished Marble stone flooring	Sqm.	0.085 + 0.05*
11.55	P/L flamed finish granite stone flooring	100 sqm.	13.50
11.56	P/L polished granite stone	100 sqm.	13.50

*** White cement**

**** Acid alkali resistant cement.**

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
12.0 ROOFING

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
12.16	10 cm thick mud phaska with flat tile bricks grouted with cement mortar (1:3).	100 sqm	3.11
12.17	10cm thick mud phaska with machine moulded tile bricks grouted with cement mortar (1:3).	100 sqm	3.11
12.19	Providing and laying brick tiles over mumty roofs grouted with cement mortar (1:3).	100 sqm	9.13
12.20	Providing and laying pressed clay tiles on roofs jointed with cement mortar (1:4).	100 sqm	9.92
12.21	Providing gola 75x75 mm in cement concrete (1:2:4).	metre	0.031
12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete (1:2:4).	each	0.06
12.23	Providing sand stone slab for roofing and laying cement mortar (1 : 4).	100 sqm	0.74
12.38	Providing and fixing M.S. holder bat clamps in cement concrete blocks 10x10x10cm of 1:2:4 mix.	each	0.005
12.55	P/F heat resistant tile on roof with cement mortar (1:4) and filling joints with white cement marble mix.	sqm	0.1367

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
13.0 FINISHING

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
CEMENT PLASTER (IN FINE SAND)			
13.1	12 mm cement plaster:		
13.1.1	1:4 (1 cement : 4 fine sand)	100 sqm	5.47
13.1.2	1:6 (1 cement : 6 fine sand)	100 sqm	3.60
13.2	15 mm cement plaster:		
13.2.1	1:4 (1 cement : 4 fine sand)	100 sqm	6.54
13.2.2	1:6 (1 cement : 6 fine sand)	100 sqm	4.30
13.3	20 mm cement plaster :		
13.3.1	1:4 (1 cement : 4 fine sand)	100 sqm	8.51
13.3.2	1:6 (1 cement : 6 fine sand)	100 sqm	5.60
CEMENT PLASTER (IN COARSE SAND)			
13.4	12 mm cement plaster :		
13.4.1	1:4 (1 cement : 4 coarse sand)	100 sqm	5.47
13.4.2	1:6 (1 cement : 6 coarse sand)	100 sqm	3.60
13.5	15 mm cement plaster :		
13.5.1	1:4 (1 cement : 4 coarse sand)	100 sqm	6.54
13.5.2	1:6 (1 cement : 6 coarse sand)	100 sqm	4.30
13.6	20 mm cement plaster :		
13.6.1	1:4 (1 cement : 4 coarse sand)	100 sqm	8.51
13.6.2	1:6 (1 cement : 6 coarse sand)	100 sqm	5.60
CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT			
13.7	12 mm cement plaster finished with a floating coat of neat cement :		
13.7.1	1:3 (1 cement : 3 fine sand)	100 sqm	9.54
13.7.2	1:4 (1 cement : 4 fine sand)	100 sqm	7.67
13.8	15 mm cement plaster finished with a floating coat of neat cement :		
13.8.1	1:3 (1 cement : 3 fine sand)	100 sqm	10.97
13.8.2	1:4 (1 cement : 4 fine sand)	100 sqm	8.74
13.9	Cement plaster (1:3) finished with a floating coat of neat cement.		
13.9.1	12 mm Cement Plaster	100 sqm	9.54
13.9.2	20 mm Cement Plaster	100 sqm	13.62
13.10	15 mm cement plaster (1:3) finished with a floating coat of neat cement.	100 sqm	10.97

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
CEMENT PLASTER IN TWO COATS			
13.11	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 finished with a top layer 6mm thick cement plaster 1:6.	100 sqm	6.26
13.12	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 and a top layer 6mm thick cement plaster (1:3).	100 sqm	8.13
13.13	12 mm cement plaster 1:2 (1 cement : 2 stone dust).	100 sqm	9.79
13.14	15 mm cement plaster 1:2 (1 cement : 2 stone dust).	100 sqm	11.70
13.15	20 mm cement plaster 1:2 (1 cement : 2 stone dust).	100 sqm	15.23
6 MM CEMENT PLASTER			
13.16	6 mm cement plaster of mix :		
13.16.1	13.16.1 1:3 (1 cement : 3 fine sand)	100 sqm	3.67
13.17	6 mm cement plaster (1:3) finished with a floating coat of neat cement.	100 sqm	5.87
13.18	Neat cement punning	100 sqm	2.20
ROUGH CAST PLASTER			
13.19	Rough cast plaster in two layers, under layer 12 mm cement plaster (1:4) and top layer 10mm cement plaster (1:3).	100 sqm	11.59
PEBBLE DASH PLASTER			
13.20	Pebble dash plaster in two layers, under layer 12mm cement plaster 1:4 and top layer 10mm cement plaster with cement mortar (1:3).	100 sqm	11.59
PLAIN CEMENT MORTAR BANDS			
13.28	12 mm thick plain cement mortar bands in cement mortar (1:4) : (Flush /Sunk / Raised / Moulded Band).	100 metre 1cm wide	0.053
13.29	18 mm thick plain cement mortar band in cement mortar (1:4)	100 metre 1cm wide	0.076
13.30	18 mm thick moulded cement mortar band in two coats under layer 12mm thick with cement mortar 1:5, top	100 metre 1cm wide	0.07
POINTING OF BRICK WORK			
13.31	Pointing on brick work with cement mortar (1:3) :		
13.31.1	13.31.1 Flush / Ruled/ Struck or weathered pointing	100 sqm	1.53
	13.31.2 Raised and cut pointing	100 sqm	2.04
POINTING ON TILE BRICK WORK			
13.32	Pointing on tile brick work with cement mortar (1:3).		
	13.32.1 Flush/ Ruled/ Struck or weathered pointing	100 sqm	2.35

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
POINTING ON STONE WORK			
13.33	Pointing on stone work with cement mortar (1:3).		
13.33.1	Flush/ Ruled pointing	100 sqm	1.17
13.33.2	Raised and cut pointing	100 sqm	2.35
13.34	Raised and cut pointing on stone work in white cement mortar (1:3).	100 sqm	2.35*
13.35	Pointing on stone slab ceiling with cement mortar (1:2).	100 sqm	1.02
13.72	Washed stone grit plaster on exterior walls in two layers under layer 12mm cement plaster (1:4), top layer 15mm cement plaster 1:1/2:2.	100 sqm	17.472

Note: - Cement consumption for pointing is same for modular & non modular bricks.

*** White cement**

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

14.0 REPAIRS TO BUILDING

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
14.1	Repairs to plaster of thickness 12 mm to 20 mm in patches with cement mortar 1:4.	100 sqm	6.95
14.2	Fixing chowkhats in existing opening with hold fasts in cement concrete blocks with cement concrete 1:3:6.		
14.2.1	Door chowkhats	each	0.12
14.2.2	Window chowkhats	each	0.06
14.2.3	Clerestory window chowkhats	each	0.03
14.12	Providing and fixing 16 mm M.S. Fan clamps in existing R.C.C. slab.	each	0.016
14.13	Regrading terracing of mud phaska to proper slope.	100 sqm	3.11
14.14	Replacing sand stone slabs in roofing in cement mortar 1:4.	100 sqm	0.78
14.15	Renewing wooden battens in roofs & making good the holes in walls.	cum	0.36
14.16	Renewing wooden beams in roofs & making good the holes in walls.	cum	0.13
14.18	Flush pointing with cement mortar 1:3 for flat tile bricks on top of mud phaska.	100 sqm	0.76
14.57	P/L in situ seven course water proofing treatment with APP (1.5 mm thick @ 2.25 kg./sqm).	sqm	0.036
14.58	P/L in situ five course water proofing treatment with APP (2.00 mm thick @ 3.00 kg./sqm).	sqm	0.024
14.59	P/L in situ seven course water proofing treatment with APP (2.00 mm thick @ 3.00 kg./sqm).	sqm	0.0360
14.60	P/F APP.		
14.60.1	14.60.1 2 mm (for corrugated roof sheets)	sqm	0.0035
14.61	P/L APP modified prefabricated five layer, 3 mm thick water proofing membrane. Tear strength in longitudinal and transverse direction as 60/80N.		
14.61.1	14.61.1 3 mm thick	sqm	0.0035
14.62	P/L APP modified prefabricated five layer 3 mm thick water proofing membrane. Tear strength in longitudinal and transverse direction as 300/250N.		
14.62.1	14.62.1 3 mm thick	sqm	0.0035

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
16.0 ROAD WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
FENCING			
16.23	P/F boundary stone including finishing smooth with cement mortar (1:3).	each	0.082
16.24	P/F precast R.C.C. kilometre stone including finishing smooth in cement mortar (1:3).		
16.24.1	35x111x25 cm size	each	0.37
16.24.2	50x152.5x25 cm size	each	0.698
16.24.3	35x93.5x18 cm size	each	0.23
CONCRETE PAVEMENT			
16.42	Cement concrete (1:2:4) in pavements.	cum	3.20
16.43	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement contentas per design mix.	cum	3.40
MISCELLANEOUS			
16.49	Making bell mouth opening including providing cement concrete (1:3:6) & plastering with cement mortar (1:3).	10 Nos.	6.60
16.52	Providing and fixing precast lime fly ash concrete blocks including finishing with 10mm thick cement mortar (1:3), in foot paths.	sqm	0.05
16.63	P/L kerb channel 30cm wide and 50mm thick of cement concrete (1:3:6).	metre	0.11
16.67	Providing and fixing factory made RCC pavement slab of M-30 grade in footpath over a bed of 20mm average thick cement mortar (1:5).	100 sqm	7.75
16.69	Providing and laying factory made kerb stone of M-25 grade jointed with cement mortar (1:3).	cum	0.05
16.75	Providing and laying C.C. pavement of mix M-25 with readymixed concrete.	cum	3.30
16.80	Dry lean cement concrete sub base.	cum	1.50
16.85	Laying old kerb stones, jointed with cement mortar (1:3).	100 metre	0.3723
16.86	P/L gang saw cut 18 mm thick, morror polished	sqm	0.09
16.87	P/L gang saw cut 30 mm thick mirror polished	sqm	0.09
16.88	P/L Matt finished vitrified tile of size	sqm	0.12
16.89	P/L Matt finished vitrified tile of size	sqm	0.12
16.90	P/L tactile tile	sqm	0.12
16.92	P/F 10x10x7.5 cm. granite stone block	sqm	1.85
16.93	Providing and Placing in position 100mm thick precast RCC covers on drain of footpath	sqm	0.352

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

17.0 SANITARY INSTALLATIONS

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
17.1/17.2/	Fixing Indian European type W.C. pan.	each	0.05
17.3			
17.4	Fixing white vitreous china urinal basin :		
17.4.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	each	0.025
17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	each	0.04
17.4.3	Range of three urinal basins with 10 litre white P.V.C. automatic flushing cistern	each	0.067
17.4.4	Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern	each	0.095
17.5	Fixing white vitreous china flat back half stall urinal :		
17.5.1	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	each	0.051
17.5.2	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern	each	0.102
17.5.3	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	0.153
17.5.4	Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	0.203
17.6	Fixing one piece construction white vitreous china squatting plate :		
17.6.1	Single squatting plate with 5 litre P.V.C. automatic flushing cistern	each	0.051
17.6.2	Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern	each	0.102
17.6.3	Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern	each	0.153
17.6.4	Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern	each	0.203
17.7	Fixing wash basin with C.I. brackets.	each	0.025
17.8	Fixing white vitreous china pedestal for wash basin.	each	0.016*
17.9	Fixing kitchen sink with C.I. brackets.	each	0.025
17.10	Fixing kitchen sink with C.I. brackets.	each	0.025
17.11	Fixing kitchen sink with C.I. brackets.	each	0.025
17.12	Fixing draining board with C.I. brackets.	each	0.014
17.13	Fixing White vitreous china water closet squatting pan.	each	0.025
17.17	Fixing a pair of white vitreous china foot rests.	each	0.025

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
17.23	Fixing white vitreous china flat urinal basin.	each	0.01
17.24	Fixing white vitreous china squatting plate urinal.	each	0.02
17.25	Fixing white vitreous china wash basin.	each	0.015
17.26	Fixing kitchen sink.	each	0.015
17.27	Fixing kitchen sink.	each	0.015
17.37	Providing and fixing M.S. holder-bat clamps.	each	0.005
17.59	Providing and fixing M.S. stays and clamps.	each	0.005
17.60	Providing and fixing trap of self-cleansing design.	each	0.025
17.61	Cutting chases in brick masonry walls for sand cast iron/ centrifugally cast (spun) iron pipes and making good the same with C.C.(1:3:6).		
17.61.1	100 mm dia	100 metre	5.40
17.61.2	75 mm dia	100 metre	3.70
17.61.3	50 mm dia	100 metre	1.87

*** White Cement.**

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
18.0 WATER SUPPLY

Code No.	Description		Unit	Quantity of cement per unit quantity of work (Quintals)
18.1/18.4/18	Providing and fixing G.I./ PE-AL-PE/ PP-R pipes.			
.7/18.10				
18.10.1	15 mm dia nominal bore		100 metre	0.05
18.10.2	20 mm dia nominal bore		100 metre	0.06
18.10.3	25 mm dia nominal bore		100 metre	0.07
18.10.4	32 mm dia nominal bore		100 metre	0.075
18.10.5	40 mm dia nominal bore		100 metre	0.08
18.10.6	50 mm dia nominal bore		100 metre	0.08
18.2/18.5/18	P/F concealed pipes.		100 metre	0.88
.8/18.11				
18.32	Constructing masonry Chamber 30x30x50 cm, for stop cock.		each	0.26
18.33	Constructing masonry Chamber 60x60x75 cm, for sluice valve.		each	1.44
18.34	Constructing masonry Chamber 90x90x100 cm, for sluice valve.		each	2.48
18.35	Constructing masonry Chamber 120x120x100 cm, for sluice valve.		each	3.50
18.36	Constructing masonry Chamber 60x60x75 cm, for fire hydrants.		each	1.30
18.37	Constructing masonry Chamber 60x45x50 cm, for water meter.		each	1.34
18.76	Cutting holes up to 30x30 cm in walls including making good the same.		100 Nos.	2.92
18.77	Cutting holes up to 15x15 cm in R.C.C. floors and roofs and repairing the hole after insertion of drain pipes etc.		100 Nos.	0.70
18.78	Making chases up to 7.5x7.5 cm in walls i/c finishing.		100 metre	0.88
18.79	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement		100 metre	4.90

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
18.0 WATER SUPPLY

Code No.	Description		Unit	Quantity of cement per unit quantity of work (Quintals)
18.1/18.4/18	Providing and fixing G.I./ PE-AL-PE/ PP-R pipes.			
.7/18.10	18.10.1	15 mm dia nominal bore	100 metre	0.05
	18.10.2	20 mm dia nominal bore	100 metre	0.06
	18.10.3	25 mm dia nominal bore	100 metre	0.07
	18.10.4	32 mm dia nominal bore	100 metre	0.075
	18.10.5	40 mm dia nominal bore	100 metre	0.08
	18.10.6	50 mm dia nominal bore	100 metre	0.08
18.2/18.5/18	P/F concealed pipes.		100 metre	0.88
.8/18.11	18.32	Constructing masonry Chamber 30x30x50 cm, for stop cock.	each	0.26
	18.33	Constructing masonry Chamber 60x60x75 cm, for sluice valve.	each	1.44
	18.34	Constructing masonry Chamber 90x90x100 cm, for sluice valve.	each	2.48
	18.35	Constructing masonry Chamber 120x120x100 cm, for sluice valve.	each	3.50
	18.36	Constructing masonry Chamber 60x60x75 cm, for fire hydrants.	each	1.30
	18.37	Constructing masonry Chamber 60x45x50 cm, for water meter.	each	1.34
	18.76	Cutting holes up to 30x30 cm in walls including making good the same.	100 Nos.	2.92
	18.77	Cutting holes up to 15x15 cm in R.C.C. floors and roofs and repairing the hole after insertion of drain pipes etc.	100 Nos.	0.70
	18.78	Making chases up to 7.5x7.5 cm in walls i/c finishing.	100 metre	0.88
	18.79	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement	100 metre	4.90

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
19.0 DRAINAGE

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
19.1	Jointing glazed stoneware pipes with stiff mixture of cement mortar in the proportion of (1:1).		
19.1.1	100 mm diameter	100 metre	2.17
19.1.2	150 mm diameter	100 metre	3.23
19.1.3	200 mm diameter	100 metre	4.33
19.1.5	250 mm diameter	100 metre	5.40
19.1.6	300 mm diameter	100 metre	6.47
19.2	Laying cement concrete (1:5:10) alround S.W. pipes:		
19.2.1	100 mm diameter S.W. pipe	100 metre	19.24
19.2.2	150 mm diameter S.W. pipe	100 metre	23.53
19.2.3	200 mm diameter S.W. pipe	100 metre	27.43
19.2.5	250 mm diameter S.W. pipe	100 metre	31.72
19.3	Laying cement concrete (1:5:10) upto haunches of S.W. pipes:		
19.3.1	100 mm diameter S.W. pipe	100 metre	9.14
19.3.2	150 mm diameter S.W. pipe	100 metre	14.82
19.3.3	200 mm diameter S.W. pipe	100 metre	17.42
19.3.4	250 mm diameter S.W. pipe	100 metre	20.28
19.3.5	300 mm diameter S.W. pipe	100 metre	23.40
19.4	Providing and fixing square-mouth S.W. gully trap :		
19.4.1	100x100 mm size P type	each	0.27
19.4.2	150 x 100 mm size P type.	each	0.26
19.4.3	180x150 mm size P type	each	0.25
19.6	P/L NP2 class R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of (1:2):		
19.6.1	100 mm dia. R.C.C. pipe	100 metre	0.50
19.6.2	150 mm dia. R.C.C. pipe	100 metre	0.60
19.6.3	250 mm dia. R.C.C. pipe	100 metre	0.90
19.6.4	300 mm dia. R.C.C. pipe	100 metre	1.10
19.6.5	450 mm dia. R.C.C. pipe	100 metre	2.40
19.6.6	500 mm dia. R.C.C. pipe	100 metre	2.60
19.6.7	600 mm dia. R.C.C. pipe	100 metre	3.20
19.6.8	700 mm dia. R.C.C. pipe	100 metre	3.70
19.6.9	800 mm dia. R.C.C. pipe	100 metre	4.20
19.6.10	900 mm dia. R.C.C. pipe	100 metre	4.90

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
19.6.11	1000 mm dia. R.C.C. pipe	100 metre	5.50
19.6.12	1100 mm dia. R.C.C. pipe	100 metre	6.10
19.6.13	1200 mm dia. R.C.C. pipe	100 metre	6.80
19.7	Constructing brick masonry manhole in cement mortar (1:4).		
19.7.1	Inside size 90x80 cm and 45 cm deep	each	2.92
19.7.2 &	Inside size 120x90 cm and 90 cm.deep	each	4.73
19.7.3			
19.8	Extra for depth for manholes		
19.8.1	Size 90x80 cm	metre	1.26
19.8.2	Size 120x90 cm	metre	1.52
19.9	Constructing brick masonry circular type manhole 0.91		
19.9.1	0.91 m deep	each	2.75
19.10	Extra depth for circular type manhole 0.91m internal dia (at bottom) with beyond 0.91m to 1.67m	metre	1.40
19.11	Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56m dia at top in cement mortar (1:4).		
19.11.1	1.68 m deep	each	5.39
19.12	Extra depth for circular type manhole 1.22m internal dia (at bottom) beyond 1.68 m to 2.29 m.	metre	1.43
19.13	Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar (1:4).		
19.13.1	2.30 m deep	each	10.86
19.14	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m.	metre	3.11
19.15	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks (1:3:6).	100 nos.	0.88
19.16	Providing orange colour safety foot rest.	100 nos.	1.98
19.17	Replacement of M.S. foot rests in manholes with 20x10x10 cm C.C. blocks (1:3:6) mix.	100 nos.	0.88
19.19	Providing and fixing in position precast R.C.C. manhole cover and frame.		
19.19.1	LD- 2.5		
19.19.1.1	Rectangular shape 600x450mm internal dimensions	each	0.128
19.19.1.2	Square shape 450mm internal dimensions	each	0.096
19.19.1.3	Circular shape 450mm internal diameter	each	0.096
19.19.2	M D - 10		
19.19.2.1	Square shape 450mm internal dimension	each	0.128
19.19.2.2	Circular shape 500mm internal diameter	each	0.096
19.19.3	H D - 20		

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
19.19.3.1	Circular shape 560 mm internal diameter	each	0.096
19.19.4	EHD - 35		
19.19.4.1	Circular shape 560 mm internal dia	each	0.096
19.21	Making connection of drain or sewer line with existing manhole and making good the walls, floors with C.C. (1:2:4) mix.		
19.21.1	For pipes 100 to 250 mm diameter	each	0.056
19.21.2	For pipes 100 to 300 mm diameter	each	0.095
19.21.3	For pipes 100 to 450 mm diameter	each	0.153
19.22	Providing sand cast iron drop connection externally for 60 cm drop from branch sewer line to main sewer manhole. :		
19.22.1	100 mm dia sand cast iron drop connection	each	0.34
19.22.2	150 mm dia sand cast iron drop connection	each	0.46
19.23	Extra for depths beyond 60 cm of sand cast iron drop connection. :		
19.23.1	For 100 mm dia. sand cast iron drop connection	metre	0.21
19.23.2	For 150 mm dia. sand cast iron drop connection	metre	0.26
19.27	Constructing brick masonry road gully chamber 50x45x 60cm in cement mortar (1:4).	each	0.93
19.28	Constructing brick masonry road gully chamber 45x45x77.5 cm in cement mortar (1:4).	each	0.82
19.29	Constructing brick masonry road gully chamber 110x50x 77.5 cm in cement mortar (1:4).	each	1.66
19.30	Constructing brick masonry chamber for underground C.I. inspection chamber and bends in cement mortar (1:4).		
19.30.1	Inside dimensions 455x610 mm and 45 cm deep for single pipe line	each	0.90
19.30.2	Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets	each	1.02
19.30.3	Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets	each	1.27
19.31	Extra for depth beyond 45 cm of brick masonry chamber :		
19.31.1	For 455x610 mm size	metre	0.87
19.31.2	For 500x700 mm size	metre	0.95
19.31.3	For 600x850 mm size	metre	1.12
19.32	Making soak pit 2.5 m diameter 3.0 metre deep.	each	0.072
19.34	Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar (1:1).		
19.34.1	100 mm dia	each	0.013
19.34.2	150 mm dia	each	0.019
19.35	P/L Non pressure Np-3 class		

Code No.	Description		Unit	Quantity of cement per unit quantity of work (Quintals)
19.35.1	450 mm dia RCC pipe		100 metre	1.20
19.35.2	600 mm dia RCC pipe		100 metre	1.60
19.35.3	900 mm dia RCC pipe		100 metre	2.50
19.35.4	1000 mm dia RCC pipe		100 metre	2.80
19.35.5	1200 mm dia RCC pipe		100 metre	3.40
19.35.6	1800 mm dia RCC pipe		100 metre	4.90
19.36	P/L Non pressure Np-4 class			
19.36.1	450 mm dia RCC pipe		100 metre	1.20
19.36.2	600 mm dia RCC pipe		100 metre	1.60
19.36.3	900 mm dia RCC pipe		100 metre	2.50
19.36.4	1000 mm dia RCC pipe		100 metre	2.80
19.36.5	1200 mm dia RCC pipe		100 metre	3.40
19.36.6	1800 mm dia RCC pipe		100 metre	4.90

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
20.0 PILE WORK

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
20.1	Providing, driving and installing driven cast-in-situ reinforced cement concrete piles of grade M -25.		
20.1.1	400 mm dia piles	metre	0.414
20.1.2	450 mm dia piles	metre	0.525
20.1.3	500 mm dia piles	metre	0.648
20.1.4	550 mm dia piles	metre	0.784
20.1.5	750 mm dia piles	metre	1.456
20.1.6	1000 mm dia piles	metre	2.590
20.1.7	1200 mm dia piles	metre	3.729
20.1.8	1500 mm dia piles	metre	5.83
20.2	Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M -25 by tripod and mechanical winch machine.		
20.2.3	450 mm dia piles	metre	0.525
20.2.4	500 mm dia piles	metre	0.648
20.2.5	600 mm dia piles	metre	0.932
20.2.6	750 mm dia piles	metre	1.456
20.2A	Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M -25 by crawler mounted, telescopic boom hydraulic piling Rig.		
20.2A.1	600 mm dia piles	metre	0.932
20.2A.2	750 mm dia piles	metre	1.456
20.2A.3	1000 mm dia piles	metre	2.59
20.2A.4	1200 mm dia piles	metre	3.729
20.2A.5	1500 mm dia pile	metre	5.83
20.3	Boring, Providing and installing cast in situ single under reamed piles of grade M -25.		
20.3.1	300 mm dia piles	metre	0.257
20.3.2	400 mm dia piles	metre	0.488
20.3.3	450 mm dia piles	metre	0.629
20.3.4	550 mm dia piles	metre	0.792
20.4	Extra for providing additional blub in under reamed piles.		
20.4.1	300 mm dia piles	each	0.109
20.4.2	400 mm dia piles	each	0.208
20.4.3	450 mm dia piles	each	0.267
20.4.4	550 mm dia piles	each	0.396

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
20.5	Providing, driving and installing driven Pre-cast reinforced cement concrete piles of grade M -25.		
20.5.1	400 mm dia piles	metre	0.414
20.5.2	450 mm dia piles	metre	0.525
20.5.3	500 mm dia piles	metre	0.648
20.5.4	550 mm dia piles	metre	0.784
20.5.5	750 mm dia piles	metre	1.795
20.5.6	1000 mm dia piles	metre	2.590

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION
22.0 WATER PROOFING

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
22.1	P/L integral cement based treatment for water proofing		
22.1.1	Using rough kota stone	sqm	0.342
22.2	P/L integral cement based treatment for water proofing		
22.2.1	Using rough Kota stone	sqm	0.443
22.3	P/L water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:		
	i) 1st course of applying cement slurry @ 4.4 kg/sqm		
	ii) 2nd course of 20mm cement plaster (1:3)		
	iii) 3rd course of applying blown or residual bitumen applied hot at 1.7 Kg. per sqm of area		
	iv) 4th course of 400 micron thick PVC sheet	sqm	0.158
22.5	P/L water proofing treatment in sunken portion of WCs, bathroom etc.	sqm	0.0123
22.6	P/L water proofing treatment on roofs.	sqm	0.0195
22.7	P/L integral cement based water proofing treatment on roofs, balconies, terraces etc. :		
22.7.1	With average thickness of 120mm and minimum thickness at khurra as 65 mm	sqm	0.387
22.14	Grading roof for water proofing treatment with		
22.14.1	Cement concrete 1:2:4	cum	3.20
22.14.2	Cement mortar 1:3	cum	5.10
22.14.3	Cement mortar 1:4	cum	3.80

1.0 COEFFICIENTS FOR CEMENT CONSUMPTION

26.0 NEW TECHNOLOGIES AND MATERIALS

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
26.31.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @2.2 kg cement per sqm.	100 sqm	2.20
26.32	Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used).		
26.32.1	12 mm average thickness.	100 sqm	5.47
26.32.2	25 mm average thickness in 2 layers.	100 sqm	11.40
26.32.3	50 mm average thickness in 3 layers.	100 sqm	22.80
26.33	Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members.		
26.33.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	16.50
26.33.2	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	24.75
26.34	Providing and laying SBR Polymer modified (of approved make @ minimum 2% by wt. of cement used) plain/reinforced concrete jacket for the structural members e.g. columns, pillars, piers, beams etc with concrete.		
26.34.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	16.5
26.34.2	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	24.75
26.34.3	100mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	33.00
26.35	Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honeycomb area of concrete/ masonry by suitable gun/pump.		
26.35.1	Stirrer mixed Acrylic Polymer of approved make @ 2% of weight of cement used) modified Cement slurry made with non shrink compound in concrete/RCC work	100 kg	1.00
26.35.2	Stirrer mixed SBR Polymer (of approved make) modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work.	100 kg	1.00
26.38	Shotcreting R.C.C. columns, beams and slabs etc. in layers with approved design mix concrete having .		
26.38.1	25mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	10.31
26.38.2	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	20.63
26.38.3	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	100 sqm	30.94

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
26.46	Providing and fixing in position, 200 mm thick factory made Expanded olystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh. applying the layer of 50 mm thick cement mortar 1:3 (1 cement: 3 coarse sand)	100 sqm	51.00
26.47	Providing and fixing in position, 230mm thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels. applying a layer of 60-65 mm thick cement mortar1: 3 {1 cement: 3 coarse sand. applying 70-75 mm thick layer of cement concrete 1:1.5: 3 (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	100 sqm cum	58.60 0.72
26.53	Filling of empty cavities with quarry dust mixed with cement	100 metre	0.03125
26.58	Filling of joints between RCC plinth beam/floor slab and wall panel of external walls	100 metre	0.03125
26.59	Waterproofing treatment of vertical joints between door frame, window & ventilator frames	100 metre	0.03125
26.61	In filling/ sealing of joint between RCC lintel cum sunsdhade and wall	100 metre	0.03125
26.66	P/F factory made EPS wall panels consisting EPS core sandwiched between two Enginered sheets	sqm	0.357
26.68	P/F Factory made Precast Concrete solid blocks in foundation and plinth	cum	0.2825
26.69	P/F Factory made Precast Concrete solid blocks in superstructure above plinth level up to floor V level	cum	0.2825
26.70	Providing and laying half block masonry with factory made Precast concrete solid blocks in foundation and plinth	100 sqm	2.6904
26.71	Providing and laying half block masonry with factory made Precast concrete solid blocks insuperstructure above plinth level up to floor V level	100 sqm	2.6904
26.73.1	Fabrication & Manufacturing of prestressed Hollow Core slab of concrete grade M-40 (cement conetent 400kg)		
26.73.1.1	100 mm thick hollow core slab	metre	0.36
26.73.1.2	120 mm thick hollow core slab	metre	0.432
26.73.1.3	150 mm thick hollow core slab	metre	0.54
26.73.1.4	200 mm thick hollow core slab	metre	0.672
26.73.1.5	250 mm thick hollow core slab	metre	0.84
26.73.1.6	300 mm thick hollow core slab	metre	1.008
26.73.1.7	350 mm thick hollow core slab	metre	1.176
26.73.1.8	400 mm thick hollow core slab	metre	1.344
26.73.2	Extra for using M-50 (Cement content 425kg) instead of M-40		
26.73.2.1	100 mm thick hollow core slab	metre	0.0225
26.73.2.2	120 mm thick hollow core slab	metre	0.027
26.73.2.3	150 mm thick hollow core slab	metre	0.03375
26.73.2.4	200 mm thick hollow core slab	metre	0.042

Code No.	Description	Unit	Quantity of cement per unit quantity of work (Quintals)
26.73.2.5	250 mm thick hollow core slab	metre	0.0525
26.73.2.6	300 mm thick hollow core slab	metre	0.063
26.73.2.7	350 mm thick hollow core slab	metre	0.0735
26.73.2.8	400 mm thick hollow core slab	metre	0.084
26.73.3	Extra for using M-60 (Cement content 440kg) instead of M-40		
26.73.3.1	100 mm thick hollow core slab	metre	0.036
26.73.3.2	120 mm thick hollow core slab	metre	0.0432
26.73.3.3	150 mm thick hollow core slab	metre	0.054
26.73.3.4	200 mm thick hollow core slab	metre	0.0672
26.73.3.5	250 mm thick hollow core slab	metre	0.084
26.73.3.6	300 mm thick hollow core slab	metre	0.1008
26.73.3.7	350 mm thick hollow core slab	metre	0.1176
26.73.3.8	400 mm thick hollow core slab	metre	0.1344
26.74	Fabrication and maufacturing of solid precast concrete element for walls,stairs,column etc.,		
26.74.1	Concrete grade M-35 (Cement content 370kgs)	cum	3.70
26.74.2	Extra for using M-40 (Cement content 400 kg) instaed of M-35	cum	0.30
26.74.3	Extra for using M-50 (Cement content 425 kg) instaed of M-35	cum	0.55
26.74.4	Extra for using M-60 (Cement content 440 kg) instaed of M-35	cum	0.70

2.0 COEFFICIENTS FOR BITUMEN CONSUMPTION
16.0 ROAD WORK

Code No.	Description	Unit	Quantity of bitumen per unit quantity of work (Quintals)
SURFACE DRESSING			
16.25	Surface dressing on new surface with paving bitumen of grade	sqm	0.0225
16.26	Surface dressing on new surface in two coats with bitumen of	sqm	0.029
16.27	Surface dressing on old surface with hot bitumen of grade VG -	sqm	0.0195
16.28	Surface dressing one coat on new surface :		
16.28.1	Using bitumen emulsion	sqm	0.0195
16.29	Surface dressing one coat on old surface :		
16.29.1	Using bitumen emulsion	sqm	0.0122
PREMIX CARPET			
16.30	Providing and applying tack coat with bitumen of grade VG-10 :		
16.30.1	On W.B.M. @ 0.75 Kg / sqm	sqm	0.0075
16.30.2	On bituminous surface @ 0.50 Kg / sqm	sqm	0.0050
16.31	Providing and applying tack coat using bitumen emulsion (Rapid Setting):		
16.31.1.1	On W.B.M @ 0.4kg/sqm	sqm	0.0040
16.31.1.2	On bituminous surface @ 0.25kg/sqm	sqm	0.0025
16.32	2 cm premix carpet surfacing with paving asphalt VG-10/ VG-30/modified bitumen CRMB 55.	sqm	0.0144
16.33	2.5 cm premix carpet surfacing with paving asphalt VG-10/ VG-30/modified bitumen CRMB 55.	sqm	0.018
16.34	2 cm premix carpet surfacing with bitumen emulsion.	sqm	0.0255*
16.35	2.5 cm premix carpet surfacing with bitumen emulsion.	sqm	0.0313*
16.36	Providing and laying Bitumen Penetration Macadam :		
16.36.1	For 50mm compacted thickness with paving asphalt VG-10 @ 50 kg/10 sqm	sqm	0.050
16.36.2	For 75 mm compacted thickness in two layers with paving asphalt VG-10 @ 68 kg/10 sqm	sqm	0.068
MASTIC AND BITUMASTIC WEARING COURSE			
16.37	Providing and laying bitumen mastic wearing course:		
16.37.1	25 mm thick	sqm	0.059
16.37.2	40 mm thick	sqm	0.0941
16.38	2.5 cm thick bitumastic sheet with hot bitumen, paving asphalt VG-10/VG-30/modified bitumen CRMB 55.	sqm	0.0303
16.39	4 cm thick bitumastic sheet with hot bitumen, paving asphalt VG-10/VG-30/modified bitumen CRMB 55.	sqm	0.0479
SEAL COAT			
16.40	P/L seal coat using 128 kg of bitumen of grade VG-10.	sqm	0.0077
16.41	P/L seal coat using 98 kg of bitumen of grade VG-10.	sqm	0.0098
16.54	P/L Dense Bituminous macadam :		

Code No.	Description	Unit	Quantity of bitumen per unit quantity of work (Quintals)
16.54.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	1.1538
16.54.2	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	1.1538
16.55	Providing and laying Bituminous Macadam.		
16.55.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	0.7683
16.55.2	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	0.7683
16.56	Providing and laying Semi Dense Bituminous concrete		
16.56.1	25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	100 sqm	2.8846
16.56.2	25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	100 sqm	2.8846
16.57	P/L Bituminous Concrete :		
16.57.1	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	1.2958
16.57.2	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	1.2958

Code No.	Description	Unit	Quantity of bitumen per unit quantity of work (Quintals)
16.57.3	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	1.2958
16.57.4	40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	1.2958
16.57.5	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	1.2958
16.57.6	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	1.2958
16.57.7	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	1.2958
16.57.8	40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	1.2958

* Including tack coat

2.0 COEFFICIENTS FOR BITUMEN CONSUMPTION
22.0 WATER PROOFING

Code No.	Description	Unit	Quantity of bitumen per unit quantity of work (Quintals)
SURFACE DRESSING			
22.3	P/L water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like..	sqm	0.0170
22.6	P/L water proofing treatment on roofs with cement slurry & fibre glass cloth.	sqm	0.0097
22.8	P/L four courses water proofing treatment with bitumen felt over roofs:		
	22.8.1 Bitumen felt (hessian base)type 3 grade I	sqm	0.0290
22.9	P/L six courses water proofing treatment with bitumen felt over roofs applied hot @ 1.45, 1.20 & 1.45 for 1st, 3rd and 5th course.	sqm	0.041
22.10 & 22.11	P/L six courses water proofing treatment with bitumen felt over roofs applied hot @ 1.45, 1.20 & 1.70 for 1st, 3rd and 5th course.	sqm	0.0435