

CHAPTER - 1 : EARTHWORK				
Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
	EARTHWORK WITH DEFINED LEAD			
011010	Earth work in excavation as per approved drawings and dumping at embankment site or spoil heap, within railway land, including 50m lead and 1.5m lift, the lead to be measured from the centre of gravity of excavation to centre of gravity of spoil heap; the lift to be measured from natural ground level and paid for in layers of 1.5m each including incidental work, as per specifications			
011011	All kinds of soils	cum	103.32	103.32
011012	Ordinary Rock (not requiring blasting)	cum	303.29	303.29
011013	Hard Rock (requiring blasting)	cum	363.30	363.30
011014	Hard Rock (blasting prohibited)	cum	778.47	778.47
011020	Extra over 011010 when controlled blasting is required and is carried out with approval of Engineer.	cum	113.08	111.83
011030	Extra over item 011010 for spreading and finishing of fill material on embankment by manual means in accordance with specifications	cum	129.27	129.24
011040	Extra for manual compaction of earthwork, where permitted, with rammers	cum	15.23	8.26
011050	Extra for lead of earth work above initial lead of 50m in all kind of soils and rocks :			
011051	For every 50 m or part thereof - lead over 50m and upto 150m	cum	13.18	13.18
011052	For every 50m or part thereof - lead over 150m and upto 500m	cum	10.40	10.40
011060	Extra for Crossing of railway track (each track). Note : This item is payable only where crossing of operational lines is involved.	Each Track	10% per track	10% per track
011070	Extra for every additional lift of 1.5m or part thereof after the initial 1.5m for earth work in all soils	cum	9.97	9.97
	EARTH WORK IN BUILDINGS			
012010	Extra over item 011010 for excavation in foundations for buildings and bridges to cover dressing to neat dimension and plumbing sides etc. Note : Dressing under this item is payable for the total quantity of excavation in foundation and not partly.	cum	10.30	10.30
012020	Benching of rock upto average 10cm depth for foundations. Note : Rate is for benched area measured in plan.	10 Sqm	680.70	680.70
012030	Extra for watering and ramming earth in foundation and floors in 15cm layers. Note : This item is payable where ramming is not included in the original rate for earthwork in filling.	cum	19.20	19.20
012040	Filling, watering and ramming earth in 15cm layers in floors and foundations with surplus earth from foundations including 50m lead and 1.5m lift	cum	23.00	23.00
012050	Supplying and filling sand in plinth and under floors including watering, ramming, consolidating and dressing complete	cum	2314.74	649.64
012060	Preparing and laying puddle on roof etc. including supply of materials and all lead and lift			
012061	With Railway's earth	cum	79.20	79.20

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
012062	With Contractor's earth	cum	239.90	342.10
012070	Open timbering in trenches for foundations and shafts, wells, cesspits, manholes, underground tanks & the like - including strutting and shoring complete :			
012071	Depth upto 1.5m	Sqm	68.10	68.68
012072	Depth exceeding 1.5m but not exceeding 3m	Sqm	70.06	70.64
012073	Depth exceeding 3m	Sqm	75.51	74.35
012080	Close Timbering in trenches for foundations and shafts, wells, cesspits, manholes, underground tanks & the like, including strutting and shoring complete :			
012081	Depth upto 1.5m	Sqm	139.75	140.33
012082	Depth exceeding 1.5m but not exceeding 3m	Sqm	142.97	143.55
012083	Depth exceeding 3m	Sqm	150.42	151.00
012090	Extra for planking and strutting, if required to be left permanently in position (face area of the timber permanently left to be measured)			
012091	In open timbering	Sqm	1497.03	752.55
012092	In close timbering	Sqm	2938.84	1473.45
	Earthwork with indeterminate lead in New lines, Doubling, Projects etc.			
013110	Earthwork in cutting (classified) in formation, trolley refuges, side drains, level crossing approaches, platforms, catch water drains, diversion of nallah & finishing to required dimension and slopes to obtain a neat appearance to standard profile inclusive of all labour, machine & materials and removing & leading all cut spoils either to make spoil dumps beyond 10m from cutting edge or for filling in embankment with all leads within the section limit, lifts, ascent, descent, loading, unloading, all taxes/royalty, clearance of site and all incidental charges, bailing & pumping out water, if required, etc. complete as per directions of the Engineer-in-Charge. The work is to be executed as per latest / updated edition of "Guidelines for Earthwork in Railway Projects" issued by RDSO, Lucknow. Cut trees shall be property of Railways and to be deposited in the railway godown unless specified otherwise in the Special Conditions of Contract			
	Note - (i) All usable earth arising from cut spoils shall be led into bank formation and Unusable spoils shall be dumped / stacked (ii) All hard rock /and boulders not fit for filling will be stacked by the contractor and will be property of the Railways.			
013111	In all conditions and classifications of soil except rock	cum	139.73	120.56
013112	Soft rock not requiring blasting in all conditions	cum	244.40	213.91
013113	In hard rock requiring blasting with explosives and blasting/drilling equipment Including all incidental work in all conditions. Rate includes cost of all explosive material.	cum	414.88	353.90

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
013114	In rock and very hard rock with hammer / chisel / pavement breaker etc. where blasting is not permitted due to special circumstances and if specifically ordered in writing including drilling and all incidental work in all conditions	cum	525.42	464.44
013115	In any other type of soil not covered above where classification is not possible	cum	139.73	120.56
013120	Earthwork in filling in embankment, guide bunds, around buried type abutments, bridge gaps, trolley refuges, rain bunds, if provided, platforms etc. with earth excavated from outside railway boundary entirely arranged by the contractor at his own cost as per RDSO's latest guidelines and specifications and special condition of contract including all leads, royalty, lifts, ascents, descents, crossing of nallahs or any other obstructions. The rates shall include all dressing of bank to final profile, demarcation and setting out of profile, site clearance, removing of shrubs, roots of vegetations growth, heavy grass, benching of existing slope of old bank, all handling/re-handling, taxes, octroi and royalty etc. as a complete job. Cut trees shall be property of railways and to be deposited in the railway godown unless specified otherwise in the Special Conditions of Contract.	cum	248.88	321.82
013130	Extra for mechanical compaction of earth/blanketing material filled in embankment with contractor's rollers of suitable capacity, type and size to achieve specified density as per specification, testing as per IS codes including cost of water, T&P, consumable material and all labour as a complete job. The work is to be executed as per Latest edition of "Guidelines for Earthwork in Railway Projects" issued by RDSO, Lucknow.	cum	30.47	16.53
13140	Removal of excavated / slip earth / debris / malba from the site of works to any other place outside Railway land/premises, including all excavations, handling, re-handling, loading, unloading & leading etc. all labour and material as a complete job. Removal of Earth (all kinds of soils)/Rocks, Boulders including mud/slush, slipped earth in catch water drains, side drains, over berms in cutting, -- contd. ...	cum	383.30	191.65
	 contd. --- water way of bridges, over coping of toe/breast/retaining walls etc. including crossing of nallah, railway tracks, making/repairing approach roads, if required, all lead, lift, ascent, descents, or any other obstruction. Earth spoils to be dumped outside the cutting or railway embankments as per direction of Engineer in charge.			

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
013150	Laying and spreading blanketing materials (Natural or Mechanically prepared as per GE-1 or G.E.IRS-2) over new / old embankment / cutting in layers of 30cm in loose state to make the embankment of designed profile as per specifications. The rate is inclusive of initial site clearance, cutting of shrubs, removal of roots of vegetation growth & heavy grass, surfacing & leveling to give required slope, benching, if required on existing bank slope, dressing and finishing of bank, all lead & lift, ascent, descent, crossing of nallahs / other obstructions, spreading the material and final dressing of slopes and top surface as per specified camber using contractor's own machinery, equipment, T&P, labour etc. as a complete job. Note - The rate does not include supply / compaction of blanketing material at site which shall be paid separately.	cum	70.90	70.90
013160	Finishing blanketing material, already compacted, in accordance with specification - over embankment including sides/cutting	100 Sqm	734.58	734.58
	MISCELLANEOUS :			
014010	Dressing surface (average excavation or filling upto 15 cm) including removing vegetation in all kind of soil. Payment against this item is to be made only if it is not included in earth work item.	10 sqm	69.50	69.50
014020	Daghdhel or lock spit 15cm deep & minimum width at top 20cm. Payment against this item is to be made only if it is not included in earth work item.	100 metre	114.60	114.60
014030	Felling trees of girth (measured at a height of 1m above ground level) including lead and stacking of material within 100m. Note : 1. When stumps are grubbed up in addition, the rates shall be doubled for trees cut and grubbed. 2. Payment for grubbing shall only be made where specially ordered. 3. Grubbing shall be ordered only where it is essential to remove the stumps, including the roots, as per specification. 4. Grubbing shall include removal of roots of trees and saplings to a depth of 60cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower.			
014031	Girth over 30 cm and upto 60 cm	Each	116.50	116.50
014032	Girth over 60 cm and upto 1.5m	Each	319.30	319.30
014033	Girth over 1.5m upto 3 m	Each	634.80	634.80
014034	Girth over 3 m	Each	1064.80	1064.80
014040	Benching slopes, cuts 30 cm in height and approximately 60 cm wide	Sqm	7.93	7.93
014050	Turfing / planting, including all lead & lift and watering as required until properly rooted with. Note - Initially payment of only 40% will be made. Balance 60% will be paid only after 3 months of maintenance period, if the turfing is properly rooted.			
014051	Turfing with sods, 10cm thick and 20cm square closely laid	100 Sqm	15805.20	15805.20
014052	Turfing with planted doob grass	100 Sqm	12126.40	12126.40

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
014053	Planting Sarkanda / sarpat or any other suitable species approved by the engineer	100 Sqm	2884.25	2884.25
014060	Providing and laying Jute Geo-Textile (JGT) in slopes of Railway embankment in accordance with RDSO's guidelines for application of Jute Geotextile in Railway embankments and hill slopes no. RDSO/2007/GE:G-0008 or its subsequent versions, including incidental earthwork and fixing arrangements			
014061	With GJ - Type 1	100 Sqm	3671.11	3671.11
014062	With GJ - Type 2	100 Sqm	4293.09	4293.09
014063	With GJ - Type 3	100 Sqm	5506.57	5506.57
014070	Cleaning out silt from bed of reservoir/canals including 50m lead and lift upto 1.5m	10 cum	679.83	679.83
014080	Cleaning side drains in cuttings by the side of track (Kutcha or Pucca) including disposal of the debris, soil, muck etc. as directed by the engineer. Note - Rates are for disposal at the end of cutting. Disposal of debris/soil/muck beyond end of cutting to be paid for under relevant lead item.			
014081	Lead within cutting is up to 50m	cum	116.50	116.50
014082	Lead within cutting is over 50m and up to 200m - for every 50m or part thereof	cum	35.00	35.00
014083	Lead within cutting exceeds 200m - for every 100m or part thereof	cum	35.00	35.00
014090	Earth work in embankment from Railway land for repairing of cess/formation/level crossing, rain cuts etc. to make the surface to the desired level and slope to the entire satisfaction of Engineer-in-charge. The rate will include free lead upto 200m, all lifts, descends, ascends, crossing of track/road/nallah etc. including breaking of clods etc and compaction by rollers/rammers/temping rods etc. Note - This item is only to be paid when specially ordered in writing.	cum	90.18	90.18
014100	Extra rate for quantities of works executed. Note - The extra percentage rate is applicable in respect of each item, but limited to quantities of work executed in these difficult conditions.			
014101	In or under water and/or liquid mud, including pumping out water as required. Note - In or under water means locations/levels where there is continuous ingress of water.	cum	0.20	0.20
014102	In or under foul position, including pumping out water as required. Note - Foul position means filthy and unhygienic conditions where physical movements are hampered such as soil mixed with sewage or night-soil	cum	0.25	0.25

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
014110	Providing and removing barricading with the help of portable fencing along the running track where the work is to be done in close vicinity of the track. Fencing shall consist of self supporting steel angles of size 50 x50x6mm, 1.5m long provided with hooks etc. and embedded in CC 1:2:4 block of size 0.23x0.23x0.23m placed at c/c distance of 2m along the track. 12mm dia rods in three horizontal layers tack welded with the angle posts including providing retro-reflective tapes in Horizontal & vertical direction. Note : Released material will be the property of the contractor after the completion of work. Cost of cement to be paid separately.	metre	400.64	392.42
014120	Supplying and laying of Biaxial Geo-grid, made from virgin high density polypropylene, having aperture size of 65mmx 65mm and ultimate tensile strength of 30 kN/m with minimum junction efficiency of 95% & minimum radial stiffness of 350 kN/m (@0.5% strain) and laying below ballast over formation, including transportation, contractor's labour, lead and lift complete as per directions of Engineer-in-charge	Sqm	190.11	190.11
014130	Supplying and laying of Woven Geotextile made from polypropylene multifilament yarn, having minimum mass of 220 GSM & ultimate tensile strength of 40 kN/m with puncture resistance of 600 N and apparent opening size of 150 microns and laying at interface of sub-grade and blanketing layer, including transportation, contractor's labour, lead and lift complete as per directions of Engineer-in-charge	Sqm	149.35	149.35
	New Items To Be Added By Zonal Railways			
015010				
015020				
015030				
015040				
015050				
015060				
015070				

CHAPTER - 2 : CARRIAGE OF MATERIALS				
Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
	Note : For all items under this Chapter : (1) Only net quantity after deduction of voids, if any as per specifications will be paid. (2) Rates are for complete items and include all lift, ascent and descent, if any. (3) Where heavy materials are involved, rates include use of machinery and equipment like cranes, lifting tackles, tripod with chain and pulley, ramps, cribs etc. complete at contractor's cost. (4) Distance for lead will be the shortest practicable distance and may be less than the route adopted by the contractor for his own convenience and will be decided by the Engineer in-charge. (5) Loading and unloading to be considered separate operations for purpose of payment.			
021010	Loading/Unloading F.P.S. / Modular bricks including manual lead upto 50m and stacking properly into/from trucks, trailers or wagons	1000 nos.	455.38	455.38
021020	Leading bricks FPS / Modular upto 50m including picking up	1000 nos.	683.02	683.02
021021	Additional lead for every subsequent 50m or part thereof over 50m and upto 500m over item 021020	1000 nos.	112.74	112.74
021030	Leading bricks FPS / Modular by truck, trailer, etc. for lead upto 10 km. Lead under this item is payable when the same exceeds 500m	1000 nos.	244.91	148.11
021040	Loading/Unloading stone sets of different sizes including lead upto 50m and stacking properly into/from trucks, trailers or wagons	Cum	455.37	455.37
021050	Leading stone setts of different size upto 50m including picking up and stacking	Cum	568.03	568.03
021051	Additional lead for every subsequent 50m or part thereof over 50m and upto 500m over item 021050	Cum	118.50	118.50
021060	Leading stone setts by trucks, trailer, etc. for lead upto 10 km. Note : Lead under this item is payable when the same exceeds 500m	Cum	122.45	74.06
021070	Loading/Unloading ballast, kankar, brickbats, stone-chips, shingle, stone boulders, block kankar, pitching stones, rubble stones, laterite, coal, surkhi, dry mortar, sand, moorum, earth, manure or sludge, ashes, lime etc. including lead up to 50m and stacking into/from trucks, trailers or wagons	Cum	47.97	47.97
021080	Leading ballast, kankar, surkhi, lime, sand, ashes, stone-chips, pitching, stone, boulders, soling, stone, rubble stone, brickbats, shingle, dry mortar, laterite or similar materials including picking up and stacking, lead upto 50m	Cum	114.23	114.23
021081	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021080	Cum	28.48	28.48
021090	Leading ballast, kankar, brickbats, stone-chips, shingle, stone boulders, block kankar, pitching stones, rubble stones, laterite, coal, surkhi, dry mortar, sand, moorum, earth, manure or sludge, ashes, lime, debris, muck, malba, etc. for lead upto 25 km. Note : Lead under this item is payable when the same exceeds 500m.	Cum	122.45	74.06

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021100	Loading/Unloading cement in bags, coal-tar, asphalt, paint etc. including lead upto 50m and stacking properly into/from trucks, trailers or wagons	MT	38.43	38.43
021110	Leading cement in bags, coal-tar, asphalt, paint including picking up and stacking, lead upto 50m	MT	106.10	106.10
021111	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021110	MT	27.24	27.24
021120	Leading cement in bags, coal-tar, asphalt, paint by truck, trailer etc. for lead upto 10 km. Note : Lead under this item is payable when it exceeds 500m.	MT	146.94	88.87
021121	Additional lead for every subsequent km or part thereof over 10 km and upto 100 km	MT/Km	9.82	5.98
021122	Additional lead for every subsequent km or part thereof, over 100 km and upto 400 km	MT/Km	6.16	3.84
021123	Additional lead for every subsequent km or part thereof over 400 km and upto 1000 km	MT/Km	5.87	3.55
021130	Loading/Unloading G.I. sheets, rails, joists, built up sections, angles, C.I./Ductile pipes, A.C Pipes, or G.I. pipes RCC/PCC beams/slabs and other miscellaneous ironwork or wood work including lead upto 50m and stacking properly into/from trucks, trailers or wagons			
021131	Individual length upto 3.5m	MT	119.16	119.16
021132	Individual length more than 3.5m	MT	130.42	130.42
021140	Leading miscellaneous materials such as iron work, rails, fitting & fastenings, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams/slabs etc. and all similar articles (each individual article or bundle being not more than 3.5m long in the longest direction) including picking up unloading and stacking, lead upto 50m	MT	116.57	116.57
021141	Additional lead for every subsequent 50m or part thereof over 50m and upto 500m over item no. 021140	MT	32.20	32.20
021150	Leading miscellaneous materials such as iron work, rails, fittings & fastenings, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams/slabs etc. and all similar articles (each individual article or bundle being not more than 3.5m long in the longest direction) including all loading, unloading and stacking, lead over 500m and upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	MT	221.29	134.18
021151	Additional lead for every subsequent km or part thereof, over 10 km and upto 100 km over item no. 021150	MT/Km	9.93	6.10
021152	Additional lead for every subsequent km or part thereof over 100 km and upto 400 km over item nos. 021150 & 021151	MT/Km	9.06	5.58
021153	Additional lead for every subsequent km or part thereof, over 400 km and upto 1000 km over item nos. 021150, 021151 & 021152	MT/Km	7.61	4.71

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021160	Leading miscellaneous materials such as iron work, rail, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams/slabs etc. and all similar articles (each individual article or bundle being more than 3.5m long in the longest direction) including picking up and stacking, lead upto 50m.	MT	118.22	118.22
021161	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021160	MT	36.38	36.38
021170	Leading miscellaneous materials such as iron work, rails, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams/slabs etc. and all similar articles (each individual article or bundle being more than 3.5m long in the longest direction) by truck, trailer etc. including all loading, unloading and stacking, lead over 500m and upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	MT	236.52	143.60
021171	Additional lead for every subsequent km or part thereof, over 10 km and upto 100 km over item no. 021170	MT/Km	11.66	7.01
021172	Additional lead for every subsequent km or part thereof, over 100 km and upto 400 km over item nos. 021170 & 021171	MT/Km	8.75	5.27
021173	Additional lead for every subsequent km or part thereof, over 400 km and upto 1000 km over item nos. 021170, 021171 & 021172	MT/Km	7.88	4.75
021180	Loading/Unloading wooden sleepers (BG/MG/NG) of all varieties, new and serviceable including lead upto 50m and stacking properly into/from trucks, trailers or wagons	MT	36.22	36.22
021190	Leading (BG/MG/NG) wooden sleepers including picking up and stacking, lead upto 50m	MT	115.25	115.25
021191	Additional lead to for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021190	MT	24.82	24.82
021200	Leading (BG/MG/NG) wooden sleepers / wooden scrap by truck trailer etc. including loading, unloading and stacking for lead upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	MT	133.53	104.49
021201	Additional lead for every subsequent km or part thereof, over 10 km and upto 100 km over item no. 021200	MT/Km	10.22	6.16
021202	Additional lead for every subsequent km or part thereof, over 100 km and upto 400 km over item no. 021200 & 021201	MT/Km	8.74	5.26
021203	Additional lead for every subsequent km or part thereof, over 400 km and upto 1000 km over item nos. 021200, 021201 & 021202	MT/Km	7.29	4.38
021210	Loading/Unloading wooden sleepers scrap (BG/MG/NG) into/from tracks, trailers or wagons including lead upto 50m	MT	47.92	47.92
021220	Loading/Unloading ballies of all varieties including lead upto 50m and stacking into/from wagons, trailers or trucks :			
021221	Upto 7m long	100 no.	207.54	207.54
021222	Over 7m & upto 10m long	100 no.	254.30	254.30

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021230	Leading ballies upto 7m long, including loading, unloading and stacking, lead upto 50m	100 no.	455.40	455.40
021231	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021230	100 no.	106.14	106.14
021240	Leading ballies over 7m & upto 10m long, including loading, unloading and stacking, lead upto 50m	100 no.	680.73	680.73
021241	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021240	100 no.	117.40	117.40
021250	Leading ballies over 7m & upto 10m long by truck, trailor, including loading, unloading and stacking for lead upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	100 no.	611.53	553.45
021260	Loading/Unloading hume pipes with or without collars of all types including lead upto 50m and stacking into/from wagons, trailers or trucks	MT	478.54	478.54
021270	Leading hume pipes with or without collars by truck, trailor etc. including loading, unloading and stacking for lead upto 10 km. Note : (i) Lead under this item is payable when the same exceeds 500m.	MT	164.00	117.54
021280	Loading/Unloading into wagons, trailers or trucks light articles such as wooden or steel almirahs, tables, chairs, machinery and other miscellaneous articles, each weighing less than ½ quintal including lead upto 50m and stacking	Each	17.32	17.32
021290	Leading light articles such as wooden or steel almirahs, tables, chairs and other miscellaneous articles, machinery etc. each weighing less than ½ quintal including loading unloading and stacking, lead upto 10 km. Lead under this item is payable when the same exceeds 500m.	Each	30.23	22.97
021291	Additional lead for every subsequent km or part thereof over 10 km and upto 100 km over item no. 021290	Each	2.96	1.80
021292	Additional lead for every subsequent km or part thereof over 100 km and upto 400 km over item nos. 021290 & 021291	Each	2.38	1.45
021293	Additional lead for every subsequent km or part thereof over 400 km and upto 1000 km over item nos. 021290, 021291 & 021292	Each	2.09	1.27
021300	Loading/Unloading into/from wagons, trailers or trucks heavy articles such as wooden or steel almirahs, tables, machinery and other miscellaneous articles, each weighing over ½ quintal and upto 2 quintal including lead upto 50m and stacking	Each	23.93	23.93
021310	Leading heavy articles such as wooden or steel almirahs, tables, machinery etc. and other miscellaneous articles, each weighing less than ½ quintal and upto 2 quintals, including loading, unloading and stacking, lead upto 10 km. Lead under this item is payable when the same exceeds 500m.	Each	96.52	67.48
021311	Additional lead for every subsequent km or part thereof, over 10 km and upto 100 km over item 021310	Each/Km	3.66	2.20

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021312	Additional lead for every subsequent km or part thereof, over 100 km and upto 400 km over item nos. 021310 & 021311	Each/Km	2.93	1.77
021313	Additional lead for every subsequent km or part thereof, over 400 km and upto 1000 km over item nos. 021310, 021311 & 021312	Each/Km	2.49	1.51
021320	Loading/Unloading into/from wagons, trailers or trucks heavy machinery each weighing over 2 quintals and upto 5 quintals each, including lead upto 50m and stacking	Each	48.32	48.32
021330	Leading heavy machinery (individual piece weighing over 2 quintals and upto 5 quintals) for lead upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	Each	164.00	117.54
021331	Additional lead for every subsequent km or part thereof, over 10 km and upto 100 km over item no. 021330	Each/Km	14.59	8.79
021332	Additional lead for every subsequent km or part thereof, over 100 km and upto 400 km over item nos. 021330 & 021331	Each/Km	11.69	7.04
021333	Additional lead for every subsequent km or part thereof, over 400 km and upto 1000 km over item nos. 021330, 021331 & 021332	Each/Km	10.24	6.17
021340	Loading / unloading of four wheeler wagon. (A bogie wagon will be taken as equivalent to two four wheeled wagons)	Each	6969.00	6969.00
021341	Extra, if the loading/unloading in four wheeler wagon has to be done in a block section, i.e. on the running line outside station section (a bogie wagon will be taken as equivalent to two four wheeled wagons) in day time (from 6.00 AM to 18.00 PM)	Each	2439.15	2439.15
021342	Extra, if the loading/unloading in four wheeler wagon has to be done in a block section, i.e. on the running line outside station section (a bogie wagon will be taken as equivalent to two four wheeled wagons) in night time (from 18.00 PM to 6.00 AM)	Each	3484.50	3484.50
021350	Stacking / Restacking wooden sleepers of all varieties and sizes including lead upto 50m -			
021351	BG Sleepers	100 no.	478.54	478.54
021352	MG Sleepers	100 no.	365.87	365.87
021353	NG Sleepers	100 no.	297.11	297.11
021360	Stacking ballast, kankar, brickbats, stone chips, shingle, stone boulders, block kankar, pitching stones, rubble stones, surkhi, laterite, dry mortar, sand, moorum, ashes, lime etc. if not covered in the original item	Cum	13.74	13.74
021370	Extra over initial lead of 50m for crossing each running track for the items covered in this chapter	Each	0.10	0.10
021380	Leading of flower pots of sizes each weighing upto 10kg, i.e. flower pots with plants including picking up and stacking, lead upto 50m	100 no.	128.11	128.11
021381	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021380	100 no.	34.21	34.21

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021390	Leading of flower pots of sizes each weighing upto 10kg, i.e. flower pots with plants including loading, unloading and stacking, lead over 500m and upto 10 km	100 no.	584.70	352.40
021400	Leading of flower pots of sizes each weighing over 10kg, i.e. flower pots with plants including picking up and stacking, lead upto 50m	100 no.	229.40	229.40
021401	Additional lead for every subsequent 50m or part thereof over 50m and upto 500m over item no. 021400	100 no.	40.77	40.77
021410	Leading of flower pots of sizes each weighing over 10kg, i.e. flower pots with plants including loading, unloading and stacking, lead over 500m and upto 10 km.	100 no.	179.39	121.32
021420	Sorting of steel materials of any type, size-wise into/from the store yard, measuring and stacking the same / including weighing, if required within the lead of 100m, as directed	MT	498.40	498.40
021430	Hiring and operating Multi-Utility vehicle of loading capacity one MT with sitting capacity of 4/6 persons, 4 strokes, 4 cylinders engine, factory-built metal body, cargo box type or passenger cabin type or both (with 24 hours availability) including cost of fuel, lubricants, major/minor repairs, salary of driver, toll tax, all other tax complete, operation and maintenance including running upto 1200 km in a month. The vehicle shall run on pucca, kutcha road and along the track. The contractor shall arrange road permit for vehicles for all the States of operation, as per instructions of engineer in-charge and vehicle shall not be more than three years old.	Each per month	56498.61	56498.61
021440	Extra over item no. 021430 for every additional km or part thereof over 1200 km in a month.	Km	47.03	47.03
021450	Hiring of Truck of loading capacity 9.0 MT and running upto 2500 km per month (with 24 hours availability) for leading of Engineering Machines, Materials & Men, as desired by Engineer-in-charge. It includes cost of driver, helper, fuel, e.g. diesel, mobil oil, brake oil etc. alongwith related repairs works and all type of taxes as admissible by State or Central Governments, octroi, toll tax, barrier tax etc. Vehicle shall run on pucca, kutcha road including along the track. The contractor shall arrange road permit for vehicle for all the States of operation, as per instructions of engineer in-charge and vehicle shall not be more than three years old.	Each per month	132188.86	107797.36
021460	Extra over item no. 021450 for every additional km or part thereof over 2500 km in a month	Km	52.83	43.07

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021470	Hiring of Truck of loading capacity 4.5 MT and running upto 2000 km per month (with 24 hours availability) for leading of Engineering Machines, Materials & Men, as desired by Engineer-in-charge. It includes cost of driver, helper, fuel, e.g. diesel, mobil oil, brake oil etc. alongwith related repair works and all type of taxes as admissible by State or Central Governments, octroi, toll tax, barrier tax etc. Vehicle shall run on pucca, kutcha road including along the track. The contractor shall arrange road permit for vehicle for all the States of operation, as per instructions of engineer in-charge and vehicle shall not be more than three years old.	Each per month	98865.89	84927.89
021480	Extra over item no. 021470 for every additional km or part thereof over 2000 km in a month.	Km	49.74	42.77
021490	Hiring of Truck of loading capacity 1 MT and running upto 1500 km per month (with 24 hours availability) for leading of Engineering Machines, Materials & Men, as desired by Engineer-in-charge. It includes cost of driver, helper, fuel, e.g. diesel, mobil oil, brake oil etc. alongwith related repairs works and all type of taxes as admissible by State or Central Governments, octroi, toll tax, barrier tax etc. Vehicle shall run on pucca, kutcha road including along the track. The contractor shall arrange road permit for vehicle for all the States of operation, as per instructions of engineer in-charge and vehicle shall not be more than three years old.	Each per month	75112.46	57689.96
021500	Extra over item no. 021490 for every additional km or part thereof over 1500 km in a month	Km	50.04	38.42
021510	Hiring of JCB Machine (in good working condition) for leveling and dressing ground / dismantling structures including disposal of debris through dumpers etc. with contractor's labour, JCB machine, machine operator, fuel etc. The contractor shall arrange road permit for vehicle for all the States of operation, as per instructions of engineer in-charge and vehicle shall not be more than three years old. Payment shall be made for actual working hours at site.	Hour	857.91	741.76
021520	Hiring of Truck with covered body of 2 MT capacity for one shift of 8 hours running upto 80 km including driver, cleaner together with fuel and other consumable stores etc. for transport of different engineering materials	Day	3235.32	2654.57
021530	Extra over item no. 021520 for every additional km or part there of over 80 km in a day	Km	39.71	32.45
021540	Hiring of Bulldozer with 12 feet wide blade including necessary fuel, oil and operator etc. complete as directed by engineer in-charge. The contractor shall be responsible for arranging all types of permits required for movement of the bulldozer. Payment shall be made for actual working hours at site.	Hour	1032.14	567.54

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
021550	Hiring of Road Crane of 25 MT capacity including necessary fuel, oil and operator etc. complete as directed by engineer in-charge. The contractor shall be responsible for arranging all types of permits required for movement of the Crane. Payment shall be made for actual working hours at site.	Hour	2984.04	3709.98
	New Items To Be Added By Zonal Railways			
022010				
022020				
022030				
022040				
022050				
022060				
022070				
022080				
022090				
022100				

CHAPTER - 3 : PLAIN CONCRETE					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	CEMENT CONCRETE (CAST-IN-SITU) :				
031010	Providing and laying in position cement concrete of specified proportion excluding cost of cement, centering and shuttering - All works upto plinth level :				
031011	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size)	cum	3021.12	1611.29	2.200
031012	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 40mm nominal size)	cum	2888.71	1575.63	2.200
031013	1:4:8 (1 cement : 4 sand : 8 graded stone aggregate 40mm nominal size)	cum	2628.37	1509.86	1.700
031014	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size)	cum	2622.63	1504.12	1.300
031015	1:2:3.5:9 (1 cement : 2 Fly Ash : 3.5 sand : 9 graded stone aggregate 40mm nominal size)	cum	2625.42	1512.94	1.700
031016	1:2.5:4:11 (1 cement : 2.5 Fly Ash : 4 sand : 11 graded stone aggregate 40mm nominal size)	cum	2540.05	1489.94	1.300
031020	Providing and laying cement concrete, up to plinth in retaining walls, walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc, excluding the cost of cement and of shuttering, centering.				
031021	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size)	cum	3279.52	1869.69	2.200
031022	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 40mm nominal size)	cum	3232.73	1919.66	2.200
031023	1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size)	cum	3204.94	1866.25	3.200
031024	1:1.5:3 (1 cement : 1.5 sand : 3 graded stone aggregate 20mm nominal size)	cum	3204.94	1866.25	4.000
031030	Providing and laying 1:3:6 cement concrete (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) in kerbs, steps and the like at or near ground level excluding cost of cement and of centering, shuttering and finishing	cum	3083.74	1673.92	2.200
031040	Dry concrete without mortar in foundation and floors rammed in layers not exceeding 15 cm thick :				
031041	a) With graded stone aggregate 40mm nominal size	cum	1284.41	982.94	
031042	b) With graded brick aggregate 40mm nominal size	cum	1295.56	848.38	
031050	Providing and laying in position cement concrete of M 20 grade, excluding the cost of cement and of centering and shuttering, as per direction of the Engineer in charge :				
031051	All works upto plinth level	cum	3057.43	1791.11	As appd in Design Mix
031052	All works above plinth level in retaining walls, walls (of any thickness) including attached pilasters, columns, pillars, posts, struts, buttresses, anchor blocks, parapets, copings, bed blocks, string or lacing courses, window sills, fillets, kerbs, steps etc.	cum	3212.24	1945.92	As appd in Design Mix

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
031060	Centering and shuttering including strutting, propping etc. and removal of form work for :				
031061	Foundations, footings, bases of columns	Sqm	145.30	145.30	
031062	Retaining walls, return walls, walls (any thickness) including attached plasters, buttresses, plinth and string courses fillets etc.	Sqm	247.17	247.17	
031063	Columns, pillars, posts and struts & miscellaneous parts	Sqm	326.42	326.42	
	CEMENT CONCRETE (PRECAST) :				
032010	Providing and fixing precast 1:3:6 cement concrete (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size) in string or lacing courses, coping, bed plates, anchor blocks, plain window sills, shelves, louvers, steps etc. upto floor two level including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required shuttering, centering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 sand) on exposed surface complete - excluding the cost of cement (cast at site)	cum	3254.88	1810.33	2.800
032020	Providing and fixing precast M 15 grade cement concrete in string or lacing courses, coping, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, etc. upto floor two level, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required shuttering, centering complete - excluding the cost of cement (cast at site)	cum	3458.99	2085.58	3.8 or as appd in design mix
032030	Providing and fixing at or near ground level, Precast M 20 grade cement concrete as per approved design and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), including the cost of required centering and shuttering complete but excluding the cost of cement (cast at site)				
032031	In kerbs, edging etc.	cum	3264.87	1972.50	4.04 or as appd in design mix
032032	In ash pit stones, platform coping stones etc.	cum	3857.66	2518.17	4.04 or as appd in design mix
032040	Extra over items 032010 and 032020 for providing and fixing precast concrete above floor two level for every floor or part thereof.	cum	169.00	169.00	
032050	Providing and laying cement concrete 1:2:4 in damp-proof course (1 cement : 2 sand : 4 graded stone aggregate 12.5mm nominal size - excluding the cost of cement and including providing, fixing and removal of forms.				
032051	25mm thick	Sqm	135.38	101.91	0.080
032052	40mm thick	Sqm	188.36	134.81	0.130
032053	50mm thick (20 mm coarse aggregate instead of 12.5mm)	Sqm	225.64	158.71	0.160
032060	Extra for providing and mixing water proofing material of brand approved by railway, if not included in relevant item	per 50 kg of cement	71.87	71.87	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
032070	Applying a coat of residual petroleum bitumen of penetration 80/ 100 of approved quality using 1.7kg per sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil	Sqm	93.23	93.43	
032080	Providing precast plain cement concrete jali 1:2:4 (1 cement : 2 sand : 4 stone chips 12.5mm nominal size) including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand) including the cost of centering, shuttering and finishing complete including the cost of cement and of plastering of jambs, sills and soffits				
032081	40mm thick	Sqm	638.89	638.89	0.002
032082	50mm thick	Sqm	726.19	726.19	0.003
	MISCELLANEOUS :				
033010	Extra for every subsequent 3m height (or part thereof) above floor two level from plinth level for concrete work in superstructure	cum	169.00	169.00	
033020	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. Note : The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto 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.	cum/m depth	266.45	276.82	
033030	Extra for laying concrete in or under foul positions	cum	101.26	101.26	
033040	Supplying and using fly ash in concrete as per approved mix design where permitted by engineer	cum	91.29	49.48	
033050	Extra for rounding of drains and keeping to proper template and grade including the cost of template	metre	33.65	33.65	
033060	Supply and using cement at worksite :				
033061	OPC 43 Grade	Tonne	5290.00	5290.00	
033062	OPC 53 Grade	Tonne	5497.00	5497.00	
033063	PPC	Tonne	5175.00	5175.00	
033064	Sulphate Resisting Cement	Tonne	6325.00	6325.00	
033070	Supplying and applying bisphenol and butyl based epoxy for repairing pot holes, spalled area, ramps stairs, heavy duty floors etc. and grouting application on surfaces which need chemical resistance. (Item includes removing all loose and chipped concrete plaster etc., cutting surface in proper square or rectangular shape, cleaning surface with compressed air, applying epoxy grout and finishing it with suitable tools with minimum 3mm thickness. Complete job is inclusive of scaffolding, as required.	Sqm	4019.63	4019.63	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
033080	Supplying and applying magnesium poly phosphate based concrete fast repair epoxy for providing bonding to all construction materials, such as steel, glass, wood or concrete. (Complete job includes removing loose, chip substances, cleaning area with damped cloth and subsequently cleaning with compressed air. Applying epoxy and finishing smooth the repaired area with suitable tools etc. job includes providing scaffolding etc., wherever required.)	Sqm	4701.69	4701.69	
033090	Supplying and applying gun grade, poly urethane grade crack sealer for filling cracks in concrete, metals, plastic, wood etc. (Complete job includes cleaning surface, applying surface activation agent and applying sealer agent, finishing and smoothening with proper tools)	metre	148.56	148.56	
033100	Supplying and applying bisphenol polyurethane coating of 100% solid epoxy compound for repairs of leaky metal/concrete water storage tanks. (Complete job : Tank surface should be identified & cleaned by suitable water based Bio-Degradable Cleaner. It should be abrasive blasted to a near metal finish alongwith application of priming coat. Ferro Silicone based epoxy compound be applied on built-up surface upto minimum thickness of 3mm and top coat of bisphenol polyurethane coating to be applied upto thickness of 500 microns. Entire coated surface be inspected using NDT-pin Hole Detector.	Sqm	7873.85	7873.85	
033110	Supplying and applying two components anti-slip epoxy coating (as per IR Standard Specifications) which should withstand heavy vehicular and pedestrian traffic and should adhere to metal, wood and concrete surfaces. It should be chemical resistant. The job includes priming of surface with suitable primer, abrasive cleaning of surface, followed by cleaning with solvents.	Sqm	1135.48	1135.48	
033120	Supplying, applying and finishing abrasion-resistant colour hardener over freshly laid concrete surface as per manufacturers recommended quantity for incorporating non-fading permanent colour pattern and design as approved by Engineer-Incharge	Kg	31.25	27.66	
033130	Supplying & mixing high range poly carboxylate ether base water reducing admixture Plast Super-C700 conforming to IS:9103-1999 (to be added @ 1% by weight of cement) for CC & RCC work for controlling water cement ratio and for gaining early strength	Kg	74.27	74.27	
	New Items To Be Added By Zonal Railways				
034010					
034020					
034030					
034040					
034050					
034060					

CHAPTER - 4 : REINFORCED CEMENT CONCRETE					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	CAST IN SITU				
041010	Providing and laying in position M-20 Grade concrete for reinforced concrete structural elements, but excluding cost of centering, shuttering, reinforcement and Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer in charge				
041011	All work upto plinth level including raft foundation of washable aprons, HS tank, pile cap, footings of FOB and Platform shelter etc.	cum	3426.21	1927.58	3.44 or as appd. in design mix
041012	All works in buildings above plinth level upto floor two level	cum	3690.00	2135.97	3.44 or as appd. in design mix
041015	In kerbs, steps and the likes etc.	cum	3558.43	2219.74	3.44 or as appd. in design mix
041016	In arches, arch ribs, domes, vaults, shells, folded plates and roofs having slopes above 150	cum	3320.87	1982.18	3.44 or as appd. in design mix
041017	In chimneys and shafts	cum	3484.80	1986.17	3.44 or as appd. in design mix
041018	In vertical and horizontal fins individually or forming box louvers, facias and eaves boards	cum	3293.72	1951.35	3.44 or as appd. in design mix
	FORM WORK :				
042010	Centering and shuttering including strutting, propping etc. and removal of form for :				
042011	Foundations, footings, bases of columns, raft foundation of washable aprons, Pile caps, Footings of FOB etc.	Sqm	144.80	144.80	
042012	Walls (any thickness) including attached plasters, buttresses, plinth and string courses etc.	Sqm	247.20	247.20	
042013	Suspended floors, roofs, landings, balconies, FOB slabs, walkway slabs and access platform	Sqm	244.27	244.27	
042014	Lintels, beams, plinth beams, bed blocks, girders, bressumers and cantilevers	Sqm	206.61	206.61	
042015	Columns, pillars, posts and struts	Sqm	326.50	326.50	
042016	Stairs (excluding landings) except spiral-staircases	Sqm	502.20	311.30	
042017	Spiral staircases (including landing)	Sqm	311.65	311.65	
042018	Arches, domes, vaults upto 6m span	Sqm	1242.60	827.70	
042019	Extra for arches, domes, vaults exceeding 6m span	Sqm	912.91	460.94	
042020	Centering and shuttering including strutting, propping etc. and removal of form for special shapes				
042021	Chimneys and shafts	Sqm	250.80	250.80	
042022	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards	Sqm	419.90	318.60	
042023	Extra for shuttering in circular work (20% of respective centering and shuttering items)	Sqm	0.20	0.20	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
042024	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and items of similar shape and size	Sqm	106.51	106.51	
042025	Edges of slabs and beams in floors and walls under 20cm wide	metre	171.30	99.50	
042026	Edges of slabs and beams in floors and walls above 20cm wide	Sqm	799.00	458.60	
042027	Cornices and mouldings	Sqm	921.99	499.92	
042028	Small surfaces such as cantilever ends, brackets and ends of steps, caps and bases to pilasters and columns and items of similar shape & size	Sqm	591.01	372.88	
042029	Weather shade, Chajjas, corbels etc. including edges	Sqm	618.61	381.35	
042030	Extra for additional height in centering, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering and de-centering at all levels, over a height of 3.5m for every additional height of 1 metre or part thereof in suspended floors, roofs, landing, beams and balconies (plan area to be measured)	Sqm	101.90	101.90	
042040	Supplying and applying shuttering oil for mould releasing, having (flash point 54°C and specific gravity 0.88±0.02) for concrete formwork to be applied either by brush or with spray machine to the entire satisfaction of Engineer Incharge	Sqm	7.57	7.57	
	PRE-CAST R.C.C. (Cast at site)				
043010	Providing, hoisting and fixing in position upto floor two level M-20 Grade precast RCC work including setting in cement mortar 1:3 (1 cement : 3 coarse sand) and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete including cost of centering, shuttering, finishing, admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, excluding cost of cement and steel reinforcement, as per approved plan & direction of Engineer incharge				
043011	In string courses, bands, coping, bed plates, anchor blocks, plain window sills and the like	cum	3816.02	2538.15	4.04 or as appd in design mix
043012	In small lintels upto 1.50m clear span	cum	4707.83	3429.97	4.04 or as appd. in design mix
043013	In lintels, beams, bressumers	cum	5627.51	4348.40	4.04 or as appd. in design mix
043014	In Shelves, cantilevers, chajjas, sunshades etc.	cum	4742.25	3465.02	4.04 or as appd. in design mix
043015	In slabs for drain covers, manhole covers, flue tops etc.	cum	3944.35	2670.33	4.04 or as appd. in design mix
043016	In vertical and horizontal fins individually or forming box louvers	cum	8522.13	6328.71	4.04 or as appd. in design mix

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
043017	In mouldings as in cornices, window sills etc.	cum	5870.51	4390.52	4.04 or as appd. in design mix
043018	In door and window frames	cum	3942.18	2443.55	4.04 or as appd. in design mix
043019	In blocks of complicated design such as C blocks of cabins, platform walls etc.	cum	6275.48	4996.37	4.04 or as appd. in design mix
043020	Providing, hoisting and fixing in position M-25 Grade reinforced cement concrete in precast standard platform wall sections including the cost of centering, shuttering, finishing, admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, but excluding cost of cement and steel reinforcement as per approved plan & as per direction of the Engineer incharge	cum	3795.03	2436.88	4.34 or as appd. in design mix
	ENCASING ROLLED STEEL SECTION :				
044010	Encasing rolled steel sections, in beams and columns with Grade 15 cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate of 12.5mm nominal size) including centering and shuttering, but excluding cost of cement & reinforcement, ungalvanised wire mesh/expanded metal and hangers	cum	6185.68	4802.27	3.20 or as appd. in design mix
044020	Extra for providing and fixing expanded metal mesh of size 20x60mm and strands 3.25mm wide 1.6mm thick weighing 3.64kg per sqm for encasing of rolling steel sections/built up sections in beams, columns and grillages excluding cost of hangers	Sqm	239.77	239.77	
044021	Encasing RS or rail section with 12mm mesh rabbit wire including cost of rabbit wire	Sqm	77.57	77.57	
	REINFORCEMENT :				
045010	Supplying reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete -				
045011	Mild steel and medium tensile steel bars	Kg	46.42	46.42	
045012	Hard drawn steel wire	Kg	66.44	66.44	
045013	Cold twisted bars	Kg	53.05	53.05	
045014	High yield strength deformed bars	Kg	53.05	53.05	
045015	Hard drawn steel wire fabric	Kg	63.81	63.81	
045016	Thermo-Mechanically Treated bars	Kg	53.05	53.05	
045020	Supplying anti corrosive reinforcement bars with fusion bonded epoxy coating after sand blasting, cleaning, induction, heating etc. of the reinforcement bars complete as per specification. including cutting, bending, placing in position and binding all complete				
045021	Upto 16mm dia bars	Kg	52.02	52.02	
045022	More than 16mm dia bars	Kg	52.02	52.02	
045030	Extra for providing and mixing polyester triangular synthetic fibres in specified ratio (@ 0.25% of cement by weight), 6 to 18 mm in length, designed for melting point 240°C to 260°C and having specific gravity of 1.33 to 1.40 in all types of works of CC, RCC, plaster etc.	Kg	390.26	390.26	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	ADDITIONS / DEDUCTIONS				
046010	Extra for RCC work in superstructure above floor two level for every floor or part thereof	cum	357.32	357.32	
046020	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 7.5cm of earth laid over	Sqm	62.20	31.29	0.073
046030	Add or deduct for plaster drip course / groove in plastered surface or moulding to R.C.C. projections	metre	17.45	17.45	
	EXPANSION JOINTS				
047010	Providing and fixing in position copper plate as per design for expansion joints	Kg	614.78	614.78	
047020	Providing and filling in position, blown bitumen in expansion joints	per cm depth/cm width/ 100m length	530.41	531.70	
047030	Providing and filling in position bitumen mix filler of proportion 80kg of hot bitumen, 1kg of cement and 0.25cum of coarse sand for expansion joints	per cm depth/cm width/ 100m length	170.10	153.78	
047040	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS : 1838 including cost of primer, sealing compound in expansion joints	per cm depth/ 100m length	465.31	465.31	
047050	Providing and fixing sheet covering over expansion joints with iron screws as per design to match the colour / shade of wall treatment.				
047051	Non-Asbestos sheet 6mm thick, 150mm wide	metre	75.01	75.01	
047052	Non-Asbestos sheet 6mm thick, 200mm wide	metre	100.80	100.80	
047053	Aluminium fluted strips 3.15mm thick, 150mm wide	metre	350.69	350.69	
047054	Aluminium fluted strips 3.15mm thick, 200mm wide	metre	408.11	408.11	
	MISCELLANEOUS				
048010	Extra for laying reinforced cement concrete in or under water and / or liquid mud including cost of pumping out water and removing slush etc. complete. Note : The quantity will be calculated by multiplying the depth measured from the subsoil water level upto the centre of gravity of the R.C.C. in cum executed under subsoil 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. No extra payment shall be made for placing the reinforcement or centrring or shuttering under the sub soil water level.	cum/m depth	26.65	27.68	
048020	Extra for laying reinforced cement concrete in or under foul position	cum/m depth	101.26	101.26	
048030	Supplying cement / epoxy grout and sealing of cracks by injection process through nipples with pressure of at least 1.4 kg/sqm till the grout comes out through adjacent nipples, complete as per specification				
048031	Using cement grout	kg	96.61	87.90	
048032	Using epoxy grout as per manufacturer's specification	kg.	1159.79	1159.79	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
048040	Supplying, fitting and fixing nipples with approved fixing compound after making grooves 10mm wide and 10mm deep, drilling holes for grouting along cracks in CC/RCC structures, sealing of grooves including subsequent cutting / removal and sealing of the holes of nipples after grouting by the approved fixing compound, complete as per specification	Each	320.43	297.20	As per actual consumption at site
048050	Supplying and applying epoxy mortars (average thickness 5mm) over leached, honey combed, spalled concrete surface and exposed steel reinforcement after thorough cleaning of the exposed concrete / reinforcement with wire brush etc. complete as per specification. Note : This item is to be paid for only where concreting of the defective work was not the responsibility of the same contractor.	Sqm	5826.63	5817.92	
048060	Providing and fixing shear anchors made of HTS bars of required dia, shape & design & fixing by drilling holes in the existing concrete/masonry to bond new work with the old work. Shear anchors to be provided at specified distance. These anchors will be embedded as per drawing inside existing concrete/masonry and will be fixed by Polymer based ready grouts as per manufacture's specification to ensure proper bonding with old structures. The shear anchor will be as per drawing or as directed by Engineer-in-charge				
048061	With 12mm dia bars	Each	68.56	68.56	
048062	With 16mm dia bars	Each	123.04	123.04	
048070	Vacuum dewatering of all types & grades concrete by mechanical means including draining out the sucked excess water from concrete & then finishing the surface smooth with mechanical trowelling with suitable equipment etc. complete. The methodology to be adopted will be as per user manual of dewatering & trawling machine and as directed by Engineer.	Sqm	7.83	7.83	
048080	Carrying out mechanical trowelling of concrete surface so as to obtain smooth shrinkage cracks free surface. Methodology to be adopted as per users manual of the equipment & as directed by Engineer-in-charge.	Sqm	11.07	12.23	
048090	Extra for making anti-slip grooves in RCC staircase 3mm wide and 3mm deep	Sqm	175.03	175.03	
048100	Keeping holes for holding down bolts in foundation blocks or bed blocks	Each	45.09	45.09	
048110	Grouting of holding down bolts with cement mortar in foundation blocks or bed blocks	Each	61.97	38.66	0.002
048120	Manufacturing, supplying & fixing of pre-fabricated RCC coping stone of size 530mm x 1125mm x 100mm thick as per top face designed and approved by site Engineer with M-30 grade RCC with 8 mm dia. tor steel at 150mm c/c both ways and manufactured by vibro compaction process using jointless FRP/GRP steel moulds of required size, shape & design. The item includes cost of cement, reinforcement, transportation etc. (Note : Under layer of cement mortar to be laid as per site conditions & should be paid for separately)	Each	669.52	602.78	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
048130	Supplying & applying with mechanical sprayer water-based concrete curing compound (membrane curing) covering 3.5 to 5 sqm of surface area per litre of compound. It should give 75% or more curing efficiency when tested to BS 7542 & comply with BS 8110 Part-I, Clause 6.63(c)	Sqm	21.00	21.58	
	New Items To Be Added By Zonal Railways				
049010					
049020					
049030					
049040					
049050					
049060					
049070					
049080					
049090					
049100					

CHAPTER - 5 : BRICK WORK					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
051010	Brick work with non-modular (FPS) bricks of class designation 7.5 in foundation and plinth in :				
051011	Cement lime mortar 1:1:6 (1 cement : 1 lime putty : 6 fine sand)	cum	4894.94	4187.21	0.625
051012	Cement lime mortar 1:2:9 (1 cement : 2 lime putty : 9 fine sand)	cum	4960.07	4241.29	0.425
051013	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	4881.43	4063.97	1.270
051014	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	4879.95	4062.85	0.950
051015	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	4666.33	3991.67	0.625
051016	Cement mortar 1:3 (1 cement : 3 coarse sand)	cum	4667.66	3882.00	1.270
051017	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	4815.89	4030.31	0.950
051018	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	4815.89	4030.31	0.625
051019	In mud mortar (with contractor's mud)	cum	3894.94	3649.71	
051020	Brick work with modular bricks of class designation 7.5 in foundation and plinth in :				
051021	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	4666.33	3819.53	1.120
051022	Cement Mortar 1:4 (1 cement : 4 fine sand)	cum	4666.33	3819.53	0.840
051023	Cement Mortar 1:6 (1 cement : 6 fine sand)	cum	4666.33	3819.53	0.550
051024	Cement mortar 1:3 (1 cement : 3 coarse sand)	cum	4667.66	3709.86	1.120
051025	Cement Mortar 1:4 (1 cement : 4 coarse sand)	cum	4817.90	3860.19	0.840
051026	Cement Mortar 1:6 (1 cement : 6 coarse sand)	cum	4817.90	3860.19	0.550
051030	Brick work with machine moulded perforated bricks of class designation 12.5 conforming to IS:2222-1991 in superstructure from beyond plinth level upto 6m above plinth level in cement mortar 1:6 (1 cement : 6 coarse sand)				
051031	With non-modular (FPS) bricks	cum	8988.09	6224.33	0.625
051032	With Modular bricks	cum	8937.50	6671.49	0.550
051040	Extra over items 051010 & 051020 for brick work in superstructure beyond plinth level upto floor two level :	cum	171.68	171.68	
051050	Extra for brick work in superstructure beyond second floor level for every 3m or part thereof :	cum	338.00	338.00	
051060	Extra for brick work in square or rectangular pillars	cum	211.06	211.06	
051070	Extra for brick work in circular pillars	cum	219.35	207.73	
051080	Extra for making tapered surface of brick masonry	cum	230.67	222.31	
051090	Extra for brick work with bricks of class designation 7.5 curved on plan upto a mean radius not exceeding 6m	cum	442.64	425.91	
051100	Extra for cutting or chamfering of bricks to required shape in masonry work	metre	4.50	4.50	
051110	Constructing tharri (platform) with bricks of class designation 7.5 laid on edge in cement mortar 1:4 (1 cement : 4 coarse sand), cement pointing 1: 2 (1 cement : 2 fine sand) including necessary excavation and 10cm bed of cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate, 40mm nominal size) complete	Sqm	757.87	655.79	0.313

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
051120	Extra for forming cavity 5cm to 7.5cm 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 300mm long of 25x3mm section at not less than 3 ties per sqm as per approved design	Sqm	62.84	62.84	
051130	Providing half brick masonry with FPS bricks of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure for closing cavity 5 to 7.5cm wide in cavity wall complete with 10cm / 11.4cm wide bitumen felt type 3 grade-1	metre	172.15	148.24	1.430
051140	Brickwork 7cm thick with bricks of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure	Sqm	410.39	352.61	0.092
051150	Brick work in plain arches in superstructure including centring and shuttering complete for span upto 6m with bricks of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand)	cum	7929.53	6210.34	1.280
051160	Brickwork in gauged arches in superstructure in cement mortar 1:3 (1 cement : 3 coarse sand) including centring and shuttering complete, for span upto 6m with bricks of class designation 7.5	cum	9049.94	7310.30	1.280
051170	Extra for additional cost of centring/shuttering for arches exceeding 6m span including all shuttering, bolting, wedging and removal (area of the soffit to be measured)	Sqm	912.91	460.94	
051180	Half brick masonry with bricks of class designation 7.5 in foundations and plinth in :				
051181	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm	562.23	473.69	0.143
051182	Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	562.23	473.70	0.106
051190	Extra for half brick masonry in superstructure above plinth level upto floor two level	Sqm	47.55	47.55	
051200	Extra for half brick masonry in superstructure above floor two level for every floor or part thereof	Sqm	18.03	18.03	
051210	Extra for providing and placing in position 2 nos. 6mm dia. M.S. bars at every third course of half brick masonry {with non-modular (FPS) bricks} including cost of M.S. bars	Sqm	53.55	53.55	
051220	Extra for providing and placing in position 2 nos. 6mm dia. M.S. bars at every third course of half brick masonry (with modular bricks) including cost of M.S. bars	Sqm	53.88	53.88	
051230	Providing brick band/string course 10/7 cm thick 5/5.7 cm projected from wall face, in bricks of class designation 7.5 laid in cement mortar 1:4 (1 cement : 4 coarse sand)	metre	13.22	5.56	Extra 0.004
	BRICK TILE WORK				
052010	Tile brick masonry with tile bricks of class designation 10 in foundation and plinth in :				
052011	Lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	cum	10688.15	6795.40	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
052012	Cement lime mortar 1:1:6 (1 cement : 1 lime putty : 6 fine sand)	cum	10339.24	6325.15	1.000
052013	Cement lime mortar 1:1:6 (1 cement : 1 lime putty : 6 coarse sand)	cum	10591.99	6400.69	1.000
052014	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	9975.32	6014.14	2.040
052015	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	9975.32	6014.14	1.520
052016	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	9975.32	6014.14	1.000
052017	Cement mortar 1:3 (1 cement : 3 coarse sand)	cum	10217.85	6079.05	2.040
052018	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	10217.84	6079.19	1.520
052019	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	10217.84	6079.19	1.000
052020	Tile brick masonry with machine moulded tile bricks of class designation 12.5 conforming to IS : 2690 (Part I) - 1992 in foundation and plinth in :				
052021	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	10217.84	6079.19	1.000
052022	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	10217.84	6079.19	1.520
052030	Extra over items 052011 to 052019 for tile bricks masonry with tile bricks of class designation 10 in superstructure beyond plinth level upto floor two level	cum	449.40	449.40	
052040	Extra over items 052011 to 052019 for tile brick masonry with tile bricks of class designation 10 in superstructure above floor two level for every floor or part thereof	cum	254.62	254.62	
052050	Deduct from items 052011 to 052019, if tile bricks of class designation 7.5 are specified or permitted by engineer instead of class designation 10	cum	270.55	812.24	
052060	Extra over Item (Items 052011 and 052021) for tile brick masonry in square or rectangular pillars	cum	301.41	301.41	
052070	Extra over items 052011 and 052021 for tile brick masonry curved on plan upto a mean radius not exceeding 6m	cum	857.07	608.28	
052080	Tile brick masonry with tile bricks of class designation 10 in plain arch work in superstructure in cement mortar 1:4 (1 cement : 4 coarse sand) including centring and shuttering complete	cum	13290.84	8329.87	1.520
052090	Tile brick masonry with tile bricks of class designation 10 in gauged arch work in superstructure in cement mortar 1:4 (1 cement : 4 coarse sand) including centring and shuttering complete	cum	14309.88	9290.37	1.330
052100	Tile brick masonry work 5cm thick with tile bricks of class designation 10 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure	Sqm	545.93	354.93	0.077
	HONEY COMB WORK				
053010	Honey-comb brick work 10/11.4 cm thick with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	359.36	305.15	0.066
053020	Honey-comb brick work 20/23 cm thick with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	718.72	610.31	0.132
	MOULDING AND CORNICE				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
054010	Moulding and cornices with brick masonry in cement mortar 1:4 (1 cement : 4 coarse sand) (girth to be measured in cm and length in running metre)	metre/cm girth	2.26	1.96	Extra 0.004
054020	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/m depth	266.45	276.82	
054030	Extra for laying brick work in or under foul position	cum	101.26	101.26	
	EXPOSED BRICK WORK				
055010	Brickwork with selected non-modular (FPS) bricks of class designation 7.5 in exposed brickwork including making horizontal and vertical grooves 10mm wide, 12mm deep complete from ground level upto plinth level in cement mortar				
055011	1:6 (1 cement : 6 fine sand)	cum	4715.90	4041.24	0.625
055012	1:6 (1 cement : 6 coarse sand)	cum	4867.47	4081.89	0.625
055020	Brickwork with modular bricks of class designation 7.5 in exposed brickwork including making horizontal and vertical grooves 10mm wide 12mm deep complete from ground level upto plinth level in cement mortar				
055021	1:6 (1 cement : 6 fine sand)	cum	4150.48	3384.75	0.550
055022	1:6 (1 cement : 6 coarse sand)	cum	4328.93	3465.59	0.550
055030	Brickwork with machine moulded modular bricks of class designation 12.5 in exposed brickwork including making horizontal and vertical grooves 10mm wide 12mm deep complete from ground level upto plinth level in cement mortar				
055031	1:6 (1 cement : 6 fine sand)	cum	4442.93	3655.25	0.550
055032	1:6 (1 cement : 6 coarse sand)	cum	4576.32	3691.03	0.550
055040	Brickwork with machine moulded non-modular (FPS) bricks of class designation 12.5 in exposed brickwork including making horizontal and vertical grooves 10mm wide 12mm deep complete from ground level upto plinth level in cement mortar				
055041	1:6 (1 cement : 6 fine sand)	cum	6475.76	6407.71	0.550
055042	1:6 (1 cement : 6 coarse sand)	cum	6589.44	6429.84	0.550
055050	Brickwork with machine moulded / perforated non-modular (FPS) bricks of class designation 12.5 conforming to IS : 2222-1991 in exposed brickwork including making horizontal and vertical grooves 10 mm wide 12mm deep complete from ground level upto plinth level in cement mortar				
055051	1:6 (1 cement : 6 fine sand)	cum	8324.16	5796.24	0.625
055052	1:6 (1 cement : 6 coarse sand)	cum	8449.44	5829.84	0.625
055060	Extra for exposed brickwork in superstructure above plinth level upto floor two level	cum	553.59	553.59	
055070	Brickwork with clay fly ash FPS bricks of class designation 7.5 in superstructure above plinth level upto floor two level in :				
055071	Cement lime mortar 1:2:9 (1 cement : 2 lime putty : 9 fine sand)	cum	3557.07	2257.63	0.425
055072	Cement lime mortar 1:1:6 (1 cement : 1 lime putty : 6 coarse sand)	cum	3648.75	2249.60	0.625

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
055073	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	3263.33	2008.01	0.950
055074	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	3263.33	2008.01	0.625
055075	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	3414.91	2048.66	0.950
055076	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	3414.91	2048.66	0.625
055080	Extra for exposed brickwork / clay fly ash brickwork in superstructure above floor two level for every floor or part thereof	cum	338.00	338.00	
055090	Brickwork with modular fly ash lime bricks (FALG Bricks) conforming to IS:12894-1989, class designation 10 in superstructure above plinth level upto floor two level in :				
055091	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	3854.82	2286.20	0.836
055092	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	3721.43	2250.42	0.836
055093	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	3854.82	2286.20	0.550
055094	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	3721.43	2250.42	0.550
	Note for item no. 055090 : These items will be operated only for load bearing structure upto 2 storeys and for non-load bearing walls 23cm thick in multi-storeyed building				
055100	Brickwork with modular calcium silicate bricks machine moulded conforming to IS:41398-1989, class designation 10 in superstructure above plinth level upto floor two level in :				
055101	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	5446.49	3082.03	0.836
055102	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	5313.10	3046.26	0.836
055103	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5446.49	3082.03	0.550
055104	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	5313.10	3046.26	0.550
055110	Brickwork with modular extruded burnt fly ash clay sewer bricks (conforming to IS : 4885 - 1988) in foundation and plinth				
055111	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	3549.24	2692.23	0.836
055112	Cement mortar 1:5 (1 cement : 5 fine sand)	cum	3553.54	2788.60	0.682
055120	Brickwork with modular extruded burnt fly ash sewer bricks (conforming to IS : 4885 - 1988) in arches in foundation and plinth in cement mortar 1:3 (1 cement : 3 fine sand)	cum	6941.62	5151.06	1.120
055130	Deduct from any brickwork item, if bricks (FPS) supplied by Railway	cum	3408.60	3181.36	
055140	Deduct from any brickwork item, if brickbats supplied by Railway	cum	426.08	241.44	
055150	Joining old brickwork with new brickwork	Sqm	76.68	76.68	0.020
	CC BLOCK MASONRY				
056010	Cement Concrete Hollow Block Masonry in foundation and plinth with : (factory made blocks)				
056011	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	1502.13	1056.99	As per actual consumption at site
056012	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	1502.13	1056.99	As per actual consumption at site

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
056013	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	1653.71	1097.64	As per actual consumption at site
056014	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	1502.13	1056.99	As per actual consumption at site
056020	Extra over Item 056010 for Cement Concrete Hollow Block masonry in superstructure above plinth level upto floor two level	cum	429.21	429.21	
056030	Extra over Item 056010 for Cement Concrete Hollow Block masonry in superstructure above floor two level for every floor or part thereof	cum	338.00	338.00	
056040	Cement Concrete Solid Block Masonry in foundation and plinth with : (factory made blocks)				
056041	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	1533.07	1087.93	As per actual consumption at site
056042	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	1533.07	1087.93	As per actual consumption at site
056043	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	1684.65	1128.58	As per actual consumption at site
056044	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	1533.07	1087.93	As per actual consumption at site
056050	Extra over Item 056040 for Cement Concrete Solid Block masonry in superstructure above plinth level upto floor two level	cum	530.91	530.91	
056060	Extra over Item 056040 for Cement Concrete Solid Block masonry in superstructure above floor two level for every floor or part thereof	cum	405.60	405.60	
	MISCELLANEOUS				
057010	Reinforced brickwork with well burnt bricks in lintels and shelves with cement mortar 1:2 (1 cement : 2 coarse sand) including centering and shuttering and fabrication of steel reinforcement complete. (Reinforcement not to be paid separately)	cum	6966.56	6308.44	1.610
057020	Cutting vertical/horizontal/sloping chase in old brickwork upto 10X10 cm and making good the same with CC 1:2:4 or cement mortar 1:2 as per site conditions	metre	88.12	75.81	0.020
057030	Making holes in old brick walls upto 15cm square, fixing bolts clamps etc. and making good the same with CC 1:2:4 or cement mortar 1:2 as per site conditions	Each	78.48	77.24	0.010

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
057040	Cutting holes, 0.1 sqm size for bathroom drains, exhaust fan holes or for similar purposes etc. including repairs				
057041	In 10/11.5cm thick walls	Each	10.00	10.00	0.010
057042	In 20/23cm thick walls	Each	19.99	19.99	0.020
057043	In 30/34.5cm thick walls	Each	26.31	26.31	0.030
057050	Stripping off / chipping & cleaning bricks recovered from dismantled masonry including stacking	1000 Nos.	282.48	282.48	
057060	Extra to rates for steining in wells with bricks, FPS/Modular of designation 12.5/10/7.5				
057061	Upto 2m inside dia.	cum	1842.39	1726.24	
057062	Above 2m and upto 6m inside dia.	cum	1814.58	1698.43	
057070	Jack arching (brick work only) 115cm thick {Class designation 7.5 - non-modular (FPS) / Modular} including all lead and lift at any floor				
057071	In cement mortar 1:3	Sqm	632.99	556.39	0.153
057072	In cement mortar 1:4	Sqm	638.68	557.92	0.114
057080	Changing weathered bricks {Class designation 7.5 - non-modular (FPS) / Modular} in building or bridges in cement mortar 1:4	Each	11.46	9.74	0.002
057090	Cutting bricks to different sizes for work like ornamental cornice etc. where each brick has to be cut to produce the finished work when not covered in original rates	100 no.	43.96	43.96	
057091	Extra rate for brickwork in coping including chamfering	cum	168.30	168.30	
057092	Fixing wooden plugs (average size 40mm x40 mm x75 mm) in walls or floors and finishing the surface, complete in brickwork	Each	16.32	16.32	
057100	Add or deduct from rates of brickwork when the bricks specified or permitted to be used by Engineer are of Class designation other than 7.5				
057101	Add for Class Designation 12.5	cum	1215.77	1043.64	
057102	Add for Class Designation 10	cum	641.99	1043.64	
057103	Deduct for Class Designation 5	cum	126.19	355.70	
057104	Deduct for Class Designation 3.5	cum	872.70	356.30	
057110	Add or deduct from rates of brickwork when the machine moulded bricks specified or permitted to be used by Engineer are of Class Designation other than 12.5				
057111	Deduct for Class Designation 10	cum	584.61	1158.39	
057112	Deduct for Class Designation 7.5	cum	1445.28	1445.28	
057120	Making plinth protection with bricks of class designation 7.5 laid on edge in cement mortar 1:6 (1 cement : 6 coarse sand) with 12mm thick bed of cement mortar 1:6 (1 cement : 6 coarse sand) over 75mm bed of cement dry brick aggregate 40mm nominal size rammed, consolidated and grouted with fine sand and the top of bricks pointed with cement mortar 1:3 (1 cement : 3 fine sand)				
057121	With non-modular (FPS) bricks	Sqm	798.02	632.09	0.105
057122	With modular bricks	Sqm	818.93	630.87	0.097

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
057130	Brick edging (approx.) 7cm wide 11.4cm deep to plinth protection / along road edges with bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand)	metre	39.03	36.27	0.014
057140	Edging with bricks laid dry length-wise (approx 7.5cm deep) including excavation, refilling, consolidating with hand packing and spreading neatly surplus earth within a lead of 50m				
057141	7.5 class designation, non-modular (FPS) / modular bricks	metre	38.25	35.93	
057142	5 class designation, non-modular (FPS) / modular bricks	metre	35.34	35.93	
057150	Providing brick edging (with bricks of class designation 7.5) 22.5cm wide and 11.5cm deep laid dry including excavation refilling and disposal of surplus earth within 50m	metre	103.91	97.87	
057160	Providing toothed (diagonal) brick edging (with bricks of class designation 7.5) laid dry along paths etc. with FPS/ Modular bricks	metre	51.45	48.43	
057170	Providing and fixing 50mm overall thickness, non-asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement concrete core composed of portland cement, fly ash, binders etc. and 4mm thick non-asbestos fiber cement boards conforming to IS:14862-2000 and ISO 8336-1993 (E) on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel modules are installed using galvanised iron steel channels 1.0mm thick and of size 15mm x 50mm x 25mm as bottom track; size 38mm x 50mm x 38mm as top track for fixing to floor and top of wall respectively including all necessary materials required for grouting of joints, fixtures etc. complete as per directions of engineer in charge (for payment net area of wall to be measured).	Sqm	2274.48	2274.48	
	New Items To Be Added By Zonal Railways				
058010					
058020					
058030					
058040					
058050					

CHAPTER - 6 : STONE WORK					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	RANDOM RUBBLE MASONRY :				
061010	Random rubble masonry with hard stone in foundation and plinth including levelling up with concrete as per specifications, upto plinth level with :				
061011	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	2588.62	1768.73	1.680
061012	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	2588.62	1768.73	1.250
061013	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2810.01	1843.70	0.830
061014	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	2609.93	1790.03	0.830
061015	Lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	cum	3198.01	2434.57	
061016	Cement Lime mortar 1:1:6 (1 cement : 1 lime : 6 fine sand)	cum	2888.86	2025.31	0.775
061020	Extra for random rubble masonry with hard stone in superstructure above plinth level up to floor two level, including levelling up with concrete as per specifications, at window sills, ceiling level and the like	cum	466.80	466.80	
061030	Extra for random rubble masonry with hard stone in :				
061031	Square or rectangular pillars	cum	209.05	209.05	
061032	Circular pillars	cum	677.50	610.14	
061033	Extra for random rubble masonry with hard stone, curved on plan for a mean radius not exceeding 6m	cum	269.72	246.49	
	COURSED RUBBLE MASONRY :				
062010	Coursed rubble masonry (1st sort) with hard stone in foundation and plinth with :				
062011	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	2958.85	2143.59	1.530
062012	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	2958.85	2143.59	1.130
062013	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	3146.48	2198.12	0.750
062014	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	2958.85	2143.59	0.750
062015	Lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	cum	3493.47	2729.54	
062016	Cement Lime mortar 1:1:6 (1 cement : 1 lime : 6 fine sand)	cum	3231.79	2376.85	0.705
062020	Coursed rubble masonry (2nd sort) with hard stone in foundation and plinth with :				
062021	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	2777.43	1987.72	1.530
062022	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	2777.43	1987.72	1.130
062023	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2965.05	2042.24	0.750
062024	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	2777.43	1987.72	0.750
062025	Lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	cum	3312.05	2573.67	
062026	Cement Lime mortar 1:1:6 (1 cement : 1 lime : 6 sand ordinary)	cum	3050.37	2220.97	0.705
062030	Extra for coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level upto floor two level	cum	398.72	398.72	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
062040	Extra for coursed rubble masonry with hard stone (first or second sort) in superstructure above floor two level for every floor or part thereof	cum	225.33	225.33	
062050	Extra for coursed rubble masonry with hard stone (first or second sort) in :				
062051	Square or rectangular pillars	cum	232.04	232.04	
062052	Circular pillars	cum	765.78	691.44	
062060	Extra for coursed rubble masonry (first or second sort) with hard stone curved on plan for a mean radius not exceeding 6m	cum	293.19	267.63	
	LATERITE MASONRY				
063010	Laterite Masonry in foundation and plinth with :				
063011	Cement mortar 1:3 (1 cement : 3 fine sand)	cum	2652.69	1751.44	1.530
063012	Cement mortar 1:4 (1 cement : 4 fine sand)	cum	2652.69	1751.44	1.130
063013	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2761.83	1780.71	0.750
063014	Cement mortar 1:6 (1 cement : 6 fine sand)	cum	2652.69	1751.44	0.750
063015	Lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	cum	2973.46	2103.00	
063016	Cement Lime mortar 1:1:6 (1 cement : 1 lime : 6 sand ordinary)	cum	2816.46	1891.39	0.705
063020	Extra for Laterite Masonry in superstructure above plinth level upto floor two level	cum	237.70	237.70	
063030	Extra for Laterite Masonry in superstructure above floor two level for every floor or part thereof	cum	241.70	241.70	
063040	Extra for Laterite masonry in :				
063041	Square or rectangular pillars	cum	130.00	130.00	
063042	Circular pillars	cum	534.20	365.78	
063050	Extra for Laterite masonry curved on plan for a mean radius not exceeding 6m	cum	258.09	200.01	
	ASHLAR MASONRY :				
064010	Stone work plain ashlar in superstructure upto floor two 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				
064011	Red Sand Stone	cum	20167.65	19789.53	0.490
064012	White Sand Stone	cum	20921.19	20543.07	0.490
064020	Stone work plain ashlar in superstructure upto floor two level in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing with cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade				
064021	Red Sand Stone	cum	19707.70	19329.57	0.690
064022	White Sand Stone	cum	20618.74	20240.61	0.690
064030	Stone work plain ashlar in arches in cement mortar 1:3 (1 cement : 3 coarse sand) including centring, shuttering and pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade				
064031	Red Sand Stone	cum	22336.18	21957.99	1.070
064032	White Sand Stone	cum	23427.71	23049.53	1.070

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
064040	Stone work plain ashlar in domes in cement mortar 1:3 (1 cement : 3 coarse sand) including centring, shuttering and pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade				
064041	Red Sand Stone	cum	32159.45	31781.26	1.070
064042	White Sand Stone	cum	33250.98	32872.80	1.070
064050	Stone work ashlar punched (ordinary) in superstructure upto floor two 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				
064051	Red Sand Stone	cum	19426.62	19048.49	0.540
064052	White Sand Stone	cum	20518.15	20140.03	0.540
064060	Extra for stone work, plain ashlar or ashlar punched above floor two level for every floor or part thereof	cum	450.66	450.66	
064070	Extra for plain ashlar or ashlar punched :				
064071	Square or Rectangular pillars	cum	1041.87	1041.87	
064072	Circular pillars	cum	1982.68	1982.68	
064080	Extra for stone work; plain ashlar or ashlar punched curved on plan with a mean radius not exceeding 6m	cum	724.78	724.78	
064090	Extra over Item 064030 for additional cost of centring for arches exceeding 6m span including all strutting, bolting, wedging etc. and removal (area of soffit to be measured)	Sqm	912.91	460.94	
	MISCELLANEOUS STONE WORK :				
065010	Stone work (Red Sand Stone) for wall lining etc. (veneer work) over 12mm thick bed of cement lime mortar 1:1:6 (1 cement : 1 lime putty : 6 fine sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade. (To be secured to the backing by means of cramps which shall be paid for separately)				
065011	Red Sand Stone, 70mm thick	Sqm	1927.73	1887.69	0.045
065012	Red Sand Stone, 60mm thick	Sqm	1829.49	1789.45	0.045
065013	Red Sand Stone, 50mm thick	Sqm	1731.48	1691.43	0.045
065014	Red Sand Stone, 40mm thick	Sqm	1632.94	1592.90	0.045
065015	Red Sand Stone, 30mm thick	Sqm	1534.70	1494.66	0.045
065020	Stone work (White Sand Stone) for wall lining etc. (veneer work) over 12mm thick bed of cement lime mortar 1:1:6 (1 cement : 1 lime putty : 6 fine sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade. (To be secured to the backing by means of cramps this shall be paid for separately)				
065021	White Sand Stone, 70mm thick	Sqm	2004.16	1964.11	0.045
065022	White Sand Stone, 60mm thick	Sqm	1895.00	1854.96	0.045
065023	White Sand Stone, 50mm thick	Sqm	1786.09	1746.05	0.045
065024	White Sand Stone, 40mm thick	Sqm	1676.37	1636.32	0.045

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
065025	White Sand Stone, 30mm thick	Sqm	1567.46	1527.42	0.045
065030	Extra for stone work (veneer work) curved on plan with a mean radius not exceeding 6m	cum	1041.87	1041.87	
065040	Providing and fixing gun metal cramps of required 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 fine sand) including making the necessary chases				
065041	25mmx6mm – 30cm long	Each	55.71	54.13	0.030
065042	15mmx6mm – 16.5cm long	Each	26.44	24.86	0.020
065050	Providing and fixing stone dowels 10cmx5cmx2.5cm cut to double wedge shape as per design in cement mortar 1:2 (1 cement : 2 fine sand) including making the necessary chases	Each	19.16	17.58	0.007
065060	Providing and fixing copper pins 7.5cm long 6mm dia. for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 fine sand) including making the necessary chases	Each	7.42	5.83	0.007
065070	Providing and fixing sloping chajja of stone 40mm thick and upto 80cm wide beyond the wall as measured along the slope, exposed surface well dressed on both sides, in cement mortar 1:4 (1 cement : 4 coarse sand) with 12mm diameter anchoring steel bar 45cm long fixed in each stone and supported on and including with bricks cove of class designation 7.5 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				
065071	Red Sand Stone	Sqm	894.52	871.96	0.056
065072	White Sand Stone	Sqm	935.46	912.90	0.056
065080	Providing and fixing horizontal chajja of stone 40mm thick and upto 80cm projection exposed surface well dressed on both sides, in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing in white cement mortar 1:2 (1 cement : 2 stone dust) with an admixture of pigment matching the stone shade				
065081	Red Sand Stone	Sqm	537.32	537.32	0.049
065082	White Sand Stone	Sqm	576.62	576.62	0.049
065090	30 mm thick Red Sand Stone sun-shade (chisel-dressed) supported on Red Sand Stone brackets, fixed in wall with cement mortar 1:4 (1 cement : 4 coarse sand) including finishing complete including brackets 30 mm thick	Sqm	594.50	594.50	0.022
065100	Providing and fixing red sand stone brackets 55cmx22.5cmx45cm sunk and moulded including providing and fixing with 4 nos. gun metal cramp 25x6mm, 30cm long and dowel bars 7.5cm long 6mm dia. as per design	Each	1798.20	1798.20	0.030

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
065110	Stone work, plain in copings, cornices, string courses and plinth courses, 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				
065111	Red Sand Stone	cum	26115.84	25737.07	0.540
065112	White Sand Stone	cum	26888.76	26509.74	0.540
065120	Providing and fixing Red Sand Stone shelves fixed in wall in cement mortar 1:3 (1 cement : 3 coarse sand) including finishing complete				
065121	30mm thick	Sqm	300.35	300.35	0.050
065122	40mm thick	Sqm	345.93	345.93	0.050
065123	50mm thick	Sqm	395.47	395.47	0.050
065124	75mm thick	Sqm	776.94	776.94	0.080
065125	100mm thick	Sqm	999.87	999.87	0.080
065130	Providing and fixing red sand stone shelves (chiesel dressed) supported on 40x40x6mm T or angle iron brackets 0.75m apart fixed on 15cmx10cmx10cm blocks of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) - with all labour and material complete				
065131	30mm thick	Sqm	685.81	682.28	0.030
065132	40mm thick	Sqm	738.94	735.41	0.030
065133	50mm thick	Sqm	780.93	777.40	0.030
065134	75mm thick	Sqm	1162.39	1158.87	0.030
065135	100mm thick	Sqm	1385.33	1381.80	0.030
065140	Providing and fixing in cement mortar 1:6 (1 cement : 6 fine sand) red sand stone slabs 30mm thick over				
065141	Drains	Sqm	250.38	250.38	0.010
065142	Flue tops	Sqm	249.86	249.86	0.020
065150	Providing and fixing stone jali 40mm thick throughout (without sunking and moulding in jali slab) 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 stone shade, jali slab without any chamfers etc.				
065151	Red Sand Stone	Sqm	5424.96	5424.96	0.020
065152	White Sand Stone	Sqm	5460.99	5460.99	0.020
065160	Extra for laying stone work in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete	cum per m depth	266.45	276.82	
065170	Extra for laying stone work in or under foul position	cum	101.26	101.26	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
065180	Wall lining butch work upto 10m height with Dholpur stone 40mm thick rough facing on the exposed surface with stone strips of minimum length 230mm and required width including embedding every tenth layer and bottom most layer in masonry or concrete after making necessary chases of size 75mmx75mm and by providing layer of 75mm thick strips including 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) including 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 the Engineer-in-Charge	Sqm	1994.72	1910.18	0.155
065190	Stone work for wall lining upto 10m height etc. (veneer work) over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry @ 3.30kg/sqm including rubbing and polishing complete. (to be secured to the backing by means of cramps which shall be paid for separately) Kota Stone slabs rough chiseled, 25mm thick	Sqm	1389.19	1357.16	0.137
065200	Stone tile work for wall lining upto 10m height with special adhesive like araldite or equivalent over 12mm 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				
065201	8mm thick (mirror polishing and machine cut edge) Granite Black Stone	Sqm	1061.40	1030.25	0.077
065202	8mm thick (mirror polishing and machine cut edge) Granite Brown Ruby Red Stone	Sqm	1324.73	1293.59	0.077
065203	8mm thick (mirror polishing and machine cut edge) Raj Nagar White Stone	Sqm	1099.84	1068.70	0.077
065210	Extra for stone work for wall lining on exterior walls of height more than 10m from ground level for every additional height of 3m or part thereof	Sqm	61.46	61.46	
065220	Dry rubble masonry in retaining walls, toe walls etc.	cum	1609.07	1376.77	
065230	Bevelling edge in Red Ashlars -				
065231	Bevelling edge 2.5cmx2.5cm	metre	7.52	7.52	
065232	Bevelling edge 7.5cmx7.5cm	metre	15.04	15.04	
065240	Bevelling edge in White Ashlars -				
065241	Bevelling edge 2.5cmx2.5cm	metre	10.03	10.03	
065242	Bevelling edge 7.5cmx7.5cm	metre	20.06	20.06	
065250	Cutting groove, rough dressed in masonry -				
065251	Girth not exceeding 15cm	metre	31.19	31.19	
065252	Girth exceeding 15cm but not exceeding 30cm	metre	43.96	43.96	
065253	Girth exceeding 30cm	metre	62.37	62.37	
065260	Cutting groove, well dressed instead of rough dressed -				
065261	Girth not exceeding 15cm	metre	47.34	47.34	
065262	Girth exceeding 15cm but not exceeding 30cm	metre	66.76	66.76	
065263	Girth exceeding 30cm	metre	94.69	94.69	
065270	Drilling or cutting holes in hard stone -				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
065271	Upto 20mm dia	metre	199.42	199.42	
065272	Exceeding 20mm and upto 40mm dia	metre	245.19	245.19	
065280	Cutting figures/letters in hard stone upto 80mm height (depth of cut 6mm)	Each	26.03	26.03	
065290	Extra over Item 065280 for cutting figures/letters in hard stone over 80mm height for every additional 20mm or part thereof	Each	4.42	4.42	
	New Items To Be Added By Zonal Railways				
066010					
066020					
066030					
066040					
066050					
066060					
066070					
066080					
066090					
066100					

CHAPTER - 7 : WOOD WORK					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	FRAMES				
071010	Providing wood work in frames of doors, windows, clerestory windows and other frames and trusses, wrought, framed and fixed in position :				
071011	Second class teak wood	cudm	148.81	77.09	
071012	Sal wood	cudm	81.38	44.60	
071013	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - Kiln seasoned & chemically treated	cudm	83.40	45.75	
071014	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	cudm	76.47	42.15	
071020	Providing wood work in frames of false ceiling, partitions etc. sawn and put up in position :				
071021	Sal wood	cudm	76.66	40.05	
071022	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - Kiln seasoned & chemically treated	cudm	78.52	41.04	
071023	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	cudm	71.78	37.61	
071030	Extra for additional labour for circular works, such as in frames of fan light :				
071031	Second class teak wood	cudm	14.70	7.53	
071032	Sal wood	cudm	7.96	4.28	
071033	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - Kiln seasoned & chemically treated	cudm	8.16	4.39	
071034	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	cudm	7.47	4.03	
	SHUTTERS FOR DOORS AND WINDOWS				
072010	Providing and fixing panelled/glazed or panelled and glazed shutters for doors, windows and clerestory windows including ISI marked black enamelled M.S. butt hinges with necessary screws excluding, panelling/glazing which will be paid for separately				
072011	Second class teak wood, 35mm thick	Sqm	3694.86	2049.41	
072012	Second class teak wood, 30mm thick	Sqm	3243.17	1823.56	
072013	Kiln seasoned and chemically treated hollock wood, 35mm thick	Sqm	2090.03	1247.93	
072014	Kiln seasoned and chemically treated hollock wood, 30mm thick	Sqm	1858.86	1132.35	
072015	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway) - 35mm thick	Sqm	2573.45	1532.63	
072016	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway) - 30mm thick	Sqm	2320.03	1405.92	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
072020	Providing and fixing panelling/glazing or panelling & glazing in panelled/glazed or panelled & glazed shutters for doors, windows & clerestory windows (area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling/glazing for panelled/glazed or panelled & glazed shutters 25mm to 40mm thick				
072021	Second class teak wood - 15mm thick	Sqm	2947.18	1605.38	
072022	Hollock wood or locally available comparable species of country wood (to be listed by respective railway). - Kiln seasoned & chemically treated - 15mm thick	Sqm	1677.56	980.47	
072023	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway) - 15mm thick	Sqm	1629.71	948.65	
072024	Plywood 5-ply 9mm thick - Teak ply on both faces	Sqm	1943.00	1943.00	
072025	Plywood 5-ply 9mm thick - Commercial ply on one face and teak ply on other face	Sqm	1514.75	1514.75	
072026	Plywood 7-ply 9mm thick - Commercial ply on one face and teak ply on other face	Sqm	1514.75	1514.75	
072030	Providing and fixing paneling and/or glazing in panelled and/or glazed shutters for doors, windows and clerestory windows (area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling/glazing for panelled/ glazed or panelled and glazed shutters 25mm to 40mm thick :				
072031	Particle board 12mm thick, flat pressed 3-layer (like Novapan, Ecoboard etc.) or graded wood particle board (like Bhutan Board) medium density Grade-I, IS:3087 marked	Sqm	634.88	634.88	
072032	Particle board 12mm thick, Veneered particle board with commercial veneering on both sides conforming to IS:3097	Sqm	938.52	938.52	
072033	Prelaminated particle board 12mm thick with decorative lamination on one side and balancing lamination on other side Grade-I, Type-II IS:12823 marked	Sqm	788.82	788.82	
072034	Prelaminated particle board 12mm thick with decorative lamination on both sides, Grade-I, Type-II IS:12823 marked	Sqm	889.55	889.55	
072035	Coir veneer board (conforming to IS:14842-2000) 8mm thick	Sqm	962.57	962.57	
072036	Coir veneer board (conforming to IS : 14842-2000) 12mm thick	Sqm	1159.51	1159.51	
072037	Glazing with float glass panes 4mm thick (10kg/sqm)	Sqm	455.73	455.73	
072040	Extra for providing heavy float glass panes 13.75 kg/sqm (5.5mm thick) instead of ordinary float glass panes 10 kg/sqm (4mm thick), in doors, windows and clerestory window shutters. (area of opening for glass panes excluding portion inside rebate shall be measured)	Sqm	87.52	87.52	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
072050	Deduction for providing frosted glass panes 10 kg/sqm (4mm thick) instead of ordinary glass panes 10 kg/sqm (4mm thick) in doors, windows and clerestory window shutters. (area of opening for glass panes excluding portion inside rebate shall be measured)	Sqm	-150.03	-150.03	
072060	Deduct for providing pin headed glass panes instead of ordinary glass panes weighing 10 kg/sqm (4mm thick) in doors, windows and clerestory windows, shutters (area of opening for glass panes excluding portion inside rebate shall be measured)	Sqm	92.14	92.14	
072070	Providing and fixing 35mm thick framed, ledged and battened door and window shutters (battens 12mm thick) including bright satin finish or black stone enamelled iron hinges with necessary screws, with :				
072071	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	Sqm	2415.05	1473.49	
072072	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated	Sqm	2599.88	1567.32	
072080	Providing and fixing 35mm thick framed, ledged, braced and battened door and window shutters (battens 12mm thick) including bright finished or/and black enamelled iron hinges with necessary screws with :				
072081	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	Sqm	1814.72	1203.57	
072082	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated	Sqm	1936.70	1266.18	
072090	Providing and fixing wire gauge shutter using galvanized M.S. wire gauge of average width of aperture 1.4mm with wire of dia 0.63mm for doors, windows and clerestory windows including ISI marked bright finished or black enamelled M.S. butt hinges with necessary screws				
072091	2nd class teak wood - 35mm thick	Sqm	3974.07	2315.71	
072092	2nd class teak wood - 30mm thick	Sqm	3525.74	2106.13	
072093	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated - 35mm thick	Sqm	2354.25	1505.55	
072094	Locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated - 30mm thick	Sqm	2106.30	1379.79	
072095	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway) - 35mm thick Kail wood	Sqm	2205.15	1431.25	
072100	Extra over Item 072090 for providing SS wire gauge instead of Galvanised MS wire gauge	Sqm	75.61	75.61	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
072110	Deduct from Item nos. 072020 & 072090, if fixed shutters (without hinges) are provided instead of openable shutters for doors, windows or clerestory windows	Sqm	69.69	69.69	
072120	Extra for providing ISI marked stainless steel butt hinges instead of black enamelled M.S. butt hinges with necessary screws. (Shutter area to be measured)				
072121	For 35mm thick shutters	Sqm	82.51	82.51	
072122	For 30mm thick shutters	Sqm	74.04	74.04	
072123	For 25mm thick shutters	Sqm	49.36	49.36	
072130	Extra for providing ISI marked bright finished brass butt hinges with screws instead of black enamelled M.S. butt hinges with necessary screws. (Shutter area to be measured)				
072131	For 35mm thick shutters	Sqm	583.53	583.53	
072132	For 30mm thick shutters	Sqm	242.34	242.34	
072140	Providing and fixing to IS:2202 Part-1 marked flush door shutter 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				
072141	35mm thick including ISI marked stainless steel butt hinges with necessary screws	Sqm	2017.29	2017.29	
072142	30mm thick including ISI marked stainless steel butt hinges with necessary screws	Sqm	1595.34	1595.34	
072143	25mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges IS:3818 marked with necessary screws	Sqm	1490.50	1490.50	
072150	Providing and fixing flush door shutters 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				
072151	35mm thick including ISI marked stainless steel butt hinges with necessary screws	Sqm	1243.72	1243.72	
072152	30mm thick including ISI marked stainless steel butt hinges with necessary screws	Sqm	1103.06	1103.06	
072153	25mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	Sqm	998.22	998.22	
072160	Extra for providing and fixing flush doors with teak veneering on one side in Item 072150	Sqm	703.25	703.25	
072170	Extra for providing lipping with 2nd class teak wood battens 25mm minimum depth on all edges of shutters (overall area of door shutters to be measured)	Sqm	82.39	82.39	
072180	Extra for providing vision panel not exceeding 0.1 sqm in all types of flush door shutters including providing and fixing glass panes in the panel - area of vision panel to be measured				
072181	Rectangular or square	Sqm	92.73	92.73	
072182	Circular	Sqm	307.80	307.80	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
072190	Extra, if louvers (not exceeding 0.2 sqm) are provided in flush door shutters (overall area of door shutters to be measured) :				
072191	(a) In 2nd class teak wood	Sqm	406.53	406.53	
072192	(b) In commercial quality timber	Sqm	348.45	348.45	
072200	Extra for cutting rebate in flush door shutters (total area of the shutters to be measured)	Sqm	65.33	65.33	
072210	Providing and fixing magic eye piece 25mm size in all type of door shutters	Each	111.07	111.07	
	Shutters With Cupboard etc.				
073010	Providing and fixing 25mm thick panelled or panelled and glazed shutters for cup board etc. including ISI marked black enamelled MS butt hinges with necessary screws (Panelling & glazing with 4mm float glass)				
073011	Second class teak wood	Sqm	3350.07	2059.51	
073020	Providing and fixing 25mm thick glazed shutters for cup board etc. including ISI marked black stone enamelled MS hinges with necessary screws including glazed panels with 4mm float glass				
073021	Second class teak wood	Sqm	3187.38	1896.82	
073030	Providing and fixing 25mm thick cup board shutters, with prelaminated flat pressed 3 layer particle board conforming to IS:12823 Grade-I, having one side decorative lamination of approved shade and other side balancing lamination including second class teak wood lipping 25x12mm thick with necessary screws and nickel plated bright finished MS piano hinges complete	Sqm	1805.80	1805.80	
073040	Providing and fixing 25mm thick cup board shutters, with veneered particle board conforming to IS:3097 Grade-1 of approved make including second class teak wood lipping 25x12mm thick with necessary screws and nickel plated bright finished MS piano hinges complete				
073041	With teak veneering on one side and commercial veneering on other side	Sqm	2619.67	2619.67	
073042	With commercial veneering on both sides	Sqm	2812.93	2812.93	
073050	Extra, if ISI marked anodised aluminium butt hinges with necessary screws are used in place of ISI marked black enamelled MS butt hinges with necessary screws	Sqm	154.26	154.26	
	MISCELLANEOUS – WOOD WORK :				
074010	Providing 50x50x50mm 2nd class teak wood plugs including cutting brickwork and fixing in cement mortar 1:3 (1 cement : 3 fine sand) and making good the walls etc.	Each	24.28	14.73	0.0010
074020	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanized M.S. screws including drilling holes in masonry work / C.C. / R.C.C. and making good etc. complete :				
074021	25mm long	Each	2.88	2.88	
074022	32mm long	Each	3.60	3.60	
074023	40mm long	Each	3.72	3.72	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
074024	50mm long	Each	3.83	3.83	
074030	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				
074031	25mm thick	Sqm	4416.47	2428.31	0.0010
074032	20mm thick	Sqm	3529.59	1928.56	0.0010
074033	12mm thick	Sqm	2233.32	1245.57	0.0010
074040	Providing and fixing flat pressed 3 layer particle board medium density exterior grade (Grade-I) (like Novapan, Ecoboard etc.) or graded wood particle board (like Bhutan Board) IS:3087 marked, to frame, backing or studding with screws etc. complete (frame, backing or studding to be paid separately)				
074041	12mm thick	Sqm	393.23	393.23	
074042	18mm thick	Sqm	392.96	392.96	
074050	Providing & fixing prelaminated particle board with one side decorative & other side balancing lamination Grade-I, Type-II IS:12823 marked in shelves with screws and M.S. or aluminium brackets wherever required, edges to be painted with polyurethane primer (brackets to be paid separately) :				
074051	18mm thick	Sqm	648.96	648.96	
074052	25mm thick	Sqm	842.59	842.59	
074060	Providing and fixing in wall lining flat pressed three layer (medium density) particle board prelaminated one side decorative lamination on other side balancing lamination Grade-I, Type-II, IS:12823 marked including priming coat on unexposed surface with necessary fixing arrangement & screws etc. complete				
074061	12mm thick	Sqm	573.76	573.76	
074062	18mm thick	Sqm	684.16	684.16	
074063	25mm thick	Sqm	887.02	887.02	
074070	Providing and fixing specified wood frame work consisting of battens 50mmx25mm fixed with rawl plug and drilling necessary holes for rawl plugs etc. including priming coat complete :				
074071	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated	cudm	86.08	49.28	
074072	Kail, ventek, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	cudm	81.50	47.16	
074080	Providing and fixing plywood plain lining with necessary screws, priming coat on unexposed surface etc. complete with :				
074081	4mm thick decorative ply facings of approved manufacturer	Sqm	768.26	715.75	
074082	3mm thick decorative ply facings of approved manufacturer	Sqm	656.95	604.44	
074083	3mm thick commercial ply lining of approved manufacturer	Sqm	656.95	604.44	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
074084	6mm thick commercial ply lining of approved manufacturer	Sqm	796.33	743.82	
074090	Providing and fixing 4mm thick coir veneer board, ISI marked IS:14842-2000, plain lining with necessary screws, priming coat on unexposed surface etc. complete	Sqm	772.55	720.03	
074100	Providing and fixing plain non-asbestos cement sheet 6mm thick (high pressure steam cured as per IS:14862-2000) in partitions including fixing to frames with brass screws etc. complete with 50mm x 12mm deodar wood beading (frames to be paid separately)	Sqm	531.01	451.13	
074110	Providing and fixing wooden planks in floors, shelves, lofts, decking of bridges, etc. with Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective Railways)				
074111	25mm thick	Sqm	1980.84	1059.38	
074112	30mm thick	Sqm	2284.38	1211.15	
074113	35mm thick	Sqm	2691.58	1439.49	
074114	40mm thick	Sqm	3049.32	1618.36	
074115	50mm thick	Sqm	3828.69	2039.98	
074120	Providing and fixing skirting of prelaminated with (one side decorative and other side balancing lamination) flat pressed, three layer (like Novapan, Ecoboard etc.) or graded particle board (like Bhutan 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				
074121	18mm thick	Sqm	715.84	715.84	
074122	25mm thick	Sqm	918.69	918.69	
074130	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete :				
074131	2nd class teak wood, 50mmx12mm	metre	131.71	85.71	
074132	2nd class teak wood, 50mmx20mm	metre	193.74	117.08	
074133	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated, 50mmx12mm	metre	85.71	62.71	
074134	Hollock wood or locally available comparable species of country wood (to be listed by respective railway). - kiln seasoned & chemically treated, 50mmx20mm	metre	116.75	78.42	
074140	Providing and fixing plain jaffri of 35mmx10mm laths placed 35mm apart (frames to be paid separately) including fixing 50mmx12mm beading complete with Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	Sqm	1245.47	772.42	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
074150	Providing and fixing 18mm thick, 150mm wide pelmet of flat pressed 3 layer (like Novapan, Ecoboard etc.) or graded wood particle board (like Bhutan board) medium density grade-I, IS:3087 marked including top cover of 6mm commercial ply wood, nickel plated M.S. pipe 20mm dia (heavy type) curtain rod with nickel plated brackets including fixing with 25x3mm M.S. flat 10cm long and rawl plugs 50mm long (designation 10 no.) etc. all complete	metre	227.89	227.89	0.0001
074160	Extra for using veneered particle board in item of pelmet 18mm thick 150mm wide	metre	103.10	103.10	
074170	Providing and fixing 18mm thick, 150mm wide pelmet of coir veneer board ISI marked IS:14842- 2000, including top cover of 6mm coir veneer board, nickel plated M.S. pipe 20mm dia (heavy type) curtain rod with nickel plated brackets including fixing with 25mmx3mm M.S. flat 10cm long and rawl plugs 50mm long (designation 10 no.) etc. all complete :				
074171	Commercial veneering on both sides	metre	286.31	286.31	0.0001
074172	Teak veneering on both sides	metre	360.64	360.64	0.0001
074180	Providing and fixing 12mm thick and 150mm wide wooden pelmets with 25mm dia wooden curtain rod and brackets including fixing with MS flat and plugs etc with painting or oiling as required all labour and material as a complete job :				
074181	With 2nd class teak wood	metre	485.35	279.63	0.0001
074182	With Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	metre	279.83	176.87	0.0001
074190	Extra to Item for providing in pelmet brass curtain rods of 1.25mm thick brass plate with brackets instead of 25mm dia. wooden curtain rods				
074191	12mm dia.	metre of pelmet	523.95	558.79	0.0001
074192	20mm dia.	metre of pelmet	690.47	725.31	0.0001
074193	25mm dia.	metre of pelmet	1077.72	1137.72	0.0001
074200	Providing and fixing teak wood lipping of size 25mmx3mm	metre	26.01	26.01	
074210	Providing and fixing curtain rods of 1.25mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs etc. wherever necessary complete				
074211	12mm dia.	metre	1010.03	1000.48	0.0001
074212	20mm dia.	metre	1075.36	1065.82	0.0001
074213	25mm dia.	metre	1794.04	1784.49	0.0001
074220	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets				
074221	20mm dia (heavy type)	metre	61.01	61.01	0.0001
074222	50mm dia (heavy type)	metre	121.99	121.99	0.0001

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
074230	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete				
074231	Fixed to steel windows by welding	Kg	74.34	74.34	
074232	Fixed to opening / wooden frames with rawl plugs screws etc.	Kg	75.97	75.97	
074240	Providing and fixing expanded metal 20x60mm strands 3.25mm wide and 1.6mm thick for windows etc.				
074241	With 50mmx20mm 2nd class Teak wood beading	Sqm	881.95	610.43	
074242	With 50mmx20mm Deodar wood beading	Sqm	756.39	568.58	
074250	Providing and fixing hard drawn steel wire fabric 75mmx25mm mesh of weight not less than 7.75 kg/sqm to windows frames etc.				
074251	With 50mmx20mm 2nd class teak wood beading	Sqm	1118.47	846.95	
074252	With 50mmx20mm 2nd class Deodar wood beading	Sqm	982.71	794.91	
074260	Providing and fixing fly proof galvanized M.S. wire gauge to windows and clerestory windows using galvanized M.S. wire gauge with average width of aperture 1.4mm in both directions with wire of dia 0.63mm :				
074261	With 2nd class teak wood beading 50mmx20mm	Sqm	906.56	635.04	
074262	With 12mm mild steel 'U' beading	Sqm	420.09	420.09	
074263	With Deodar wood beading 50mmx20mm	Sqm	730.81	558.66	
074270	Deduction for fixing 75mmx25mm hard drawn steel wire fabric of weight not less than 7.75 kg/sqm in panelled and glazed door and window shutters in lieu of 4mm glass glazing	Sqm	-135.51	-135.51	
074280	Providing 40mmx5mm flat iron hold fast 40cm long including fixing to frame with 10mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30cmx10cmx15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate-20mm nominal size)	Each	69.99	62.94	0.0110
074290	Providing beams including hoisting, fixing in position and applying wood preservative for the unexposed surface etc. complete with :				
074291	Sal wood	Cum	74580.73	39031.97	
074292	Hollock wood or locally available comparable species of country wood (to be listed by respective railway) - kiln seasoned & chemically treated	Cum	74580.73	39031.97	
074293	Kail, venteak, pillamarudhu or locally available comparable species of good country wood (to be listed by respective railway)	Cum	69741.84	36569.40	
074294	2nd class teak wood	Cum	139640.91	70334.20	
074295	Deodar wood	Cum	89645.30	46521.13	
074300	Providing and fixing float glass panes with putty and nails including removal of old broken panes wherever required				
074301	Float Glass panes 4mm thick (10 kg/sqm)	Sqm	438.66	438.66	
074302	Frosted glass panes 4mm thick (10 kg/sqm)	Sqm	603.69	603.69	
074303	Heavy sheet glass panes 5.5mm thick (13.75 kg/sqm)	Sqm	534.93	534.93	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
074310	Providing and fixing float glass panes with 12mm wooden beading including removal of old broken panes and old wooden beading, wherever necessary				
074311	Float Glass panes 4mm thick (10 kg/sqm)	Sqm	454.34	454.34	
074312	Frosted glass panes 4mm thick (10 kg/sqm)	Sqm	619.37	619.37	
074313	Heavy sheet glass panes 5.5mm thick (13.75 kg/sqm)	Sqm	550.61	550.61	
074320	Providing, erecting and fixing sal ballies in posts, purlins, rafters, etc. including cost of iron nails and spikes required and supplying & applying wood preservative to exposed surfaces :				
074321	80mm dia. ballies	metre	60.02	40.85	
074322	100mm dia. ballies	metre	70.72	38.78	
074323	125mm dia. ballies	metre	81.41	49.47	
074324	150mm dia. Sal ballies	metre	88.28	55.06	
074325	80mm dia. Eucalyptus ballies	metre	40.65	25.32	
074326	100mm dia. Eucalyptus ballies	metre	48.60	30.71	
074327	125mm dia. Eucalyptus ballies	metre	55.25	36.09	
074328	150mm dia. Eucalyptus ballies	metre	64.48	42.76	
074330	Providing, erecting and fixing Ballies of locally available species approved by the zonal railway in posts, purlins, rafters, etc., including cost of iron nails and spikes required and supplying & applying wood preservative to exposed surfaces				
074331	80mm dia. ballies	metre	27.88	32.99	
074332	100mm dia. ballies	metre	38.38	46.04	
074333	125mm dia. ballies	metre	68.03	52.70	
074334	150mm dia. ballies	metre	78.53	58.09	
	Note : The diameter shall be the average diameter as measured at the centre of balli.				
074340	Providing and fixing rafters, purlins, ridges, posts, hips, wall plates, hand rails in staircase etc. with 2nd class teak wood	cum	143556.24	72588.59	
074350	Providing and fixing decorative laminated plastic veneers of approved quality and make (e.g. sunmica, formica or equivalent) over wooden surfaces including smoothening of wooden surface and fixing of veneers with approved synthetic resin adhesive, complete				
074351	1.0mm thick	Sqm	439.98	439.98	
074352	0.8mm thick	Sqm	185.76	185.76	
074353	0.6mm thick	Sqm	123.25	123.25	
074360	Providing and fixing Teak Wood veneer sheet of approved quality and make over wooden surfaces including smoothening of wooden surface and fixing of veneers with approved synthetic resin adhesive complete				
074361	3mm thick	Sqm	309.90	309.90	
074362	2.5mm thick	Sqm	309.90	309.90	
074363	2mm thick	Sqm	234.88	234.88	
	M.S. FITTINGS - BRIGHT SATIN FINISH :				
075010	Providing and fixing M.S. pressed butt hinges generally conforming to IS:1341, bright satin finish with necessary screws etc. complete of size				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
075011	125mmx65mmx2.12mm	Each	38.93	38.93	
075012	100mmx58mmx1.9mm	Each	27.94	27.94	
075013	75mmx47mmx1.7mm	Each	17.45	17.45	
075014	50mmx37mmx1.5mm	Each	10.71	10.71	
075020	Providing and fixing MS pressed Parliament hinges generally conforming to IS:362 bright finished with necessary screws etc. complete of size				
075021	150mmx125mmx27mmx2.5mm	Each	100.36	100.36	
075022	125mmx125mmx27mmx2.5mm	Each	85.53	85.53	
075023	100mmx125mmx27mmx2.5mm	Each	71.68	71.68	
075024	75mmx100mmx20mmx2.4mm	Each	62.51	62.51	
075030	Providing and fixing M.S. single acting spring hinges bright satin finish with necessary screws etc. complete of size				
075031	150mm	Each	414.71	414.71	
075032	125mm	Each	382.11	382.11	
075033	100mm	Each	348.26	348.26	
075040	Providing and fixing M.S. double acting spring hinges generally conforming to IS:453, bright satin finish with necessary screws etc. complete of size				
075041	150mm	Each	675.98	675.98	
075042	125mm	Each	610.67	610.67	
075043	100mm	Each	544.44	544.44	
075050	Providing and fixing M.S. sliding door bolts generally conforming to IS:281, bright satin finish or black stone enamelled with nuts and screws etc. complete of size				
075051	300mmx16mm	Each	175.09	175.09	
075052	250mmx16mm	Each	167.77	167.77	
075060	Providing and fixing M.S. tower bolts generally conforming to IS:204 (Part I) with necessary screws etc. complete of size :				
075061	250mmx10mm	Each	71.04	71.04	
075062	200mmx10mm	Each	58.37	58.37	
075063	150mmx10mm	Each	45.39	45.39	
075064	100mmx10mm	Each	34.28	34.28	
075070	Providing and fixing M.S. door handles with necessary screws etc. complete :				
075071	125mm	Each	17.93	17.93	
075072	100mm	Each	12.71	12.71	
075073	75mm	Each	10.05	10.05	
075080	Providing and fixing MS hooks and eyes :				
075081	300mm	Each	17.45	17.45	
075082	250mm	Each	14.83	14.83	
075083	200mm	Each	12.22	12.22	
075084	150mm	Each	6.99	6.99	
075085	100mm	Each	5.69	5.69	
075090	Providing and fixing M.S. fan light pivot with necessary screws etc. complete	Each	22.90	22.90	
075100	Providing and fixing M.S. fan light catch with necessary screws etc. complete	Each	19.71	19.71	
075110	Providing and fixing M.S. hasp and staple (Safety type) with necessary screws etc. complete :				
075111	150mm	Each	53.09	53.09	
075112	115mm	Each	34.57	34.57	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
075113	90mm	Each	29.88	29.88	
075120	Providing and fixing 300mm long M.S. chain with hook for fan light including necessary screws etc. complete	Each	40.08	40.08	
075130	Providing and fixing M.S. casement stays (straight peg type) with necessary screws etc. complete				
075131	300mm weighing not less than 200 gm	Each	38.34	38.34	
075132	250mm weighing not less than 150 gm	Each	31.34	31.34	
075133	200mm weighing not less than 120 gm	Each	31.34	31.34	
075140	Providing and fixing IS-1378 marked oxidised M.S. pressed butt hinges with necessary screws etc. complete of size :				
075141	125mmx65mmx2.12mm	Each	32.95	32.95	
075142	100mmx58mmx1.9mm	Each	24.35	24.35	
075143	75mmx47mmx1.7mm	Each	16.01	16.01	
075144	50mmx37mmx1.5mm	Each	10.36	10.36	
075150	Providing and fixing IS-1378 marked oxidised M.S. pressed parliamentary hinges with necessary screws etc. complete of size :				
075151	150mmx125mmx27mmx2.8mm	Each	99.43	99.43	
075152	125mmx125mmx27mmx2.8mm	Each	84.67	84.67	
075153	100mmx125mmx27mmx2.8mm	Each	70.82	70.82	
075154	75mmx100mmx20mmx2.24mm	Each	62.32	62.32	
075160	Providing and fixing IS-1378 marked oxidised M.S. single acting spring hinges with necessary screws etc. complete of size :				
075161	150mm	Each	413.32	413.32	
075162	125mm	Each	380.66	380.66	
075163	100mm	Each	347.47	347.47	
075170	Providing and IS-1378 marked fixing oxidised M.S. double acting spring hinges with necessary screws etc. complete of size :				
075171	150mm	Each	674.66	674.66	
075172	125mm	Each	609.33	609.33	
075173	100mm	Each	543.47	543.47	
075180	Providing Copper oxidized M.S. Piano hinges ISI marked IS:3818 finished with nickel plating and fixing with necessary screws etc. complete				
075181	Overall width 35mm	metre	102.60	102.60	
075182	Overall width 50mm	metre	102.60	102.60	
075183	Overall width 65mm	metre	200.60	200.60	
075190	Providing and fixing ISI marked Copper oxidized M.S. sliding door bolts with nuts and screws etc. complete of size				
075191	300mmx16mm	Each	175.19	175.19	
075192	250mmx16mm	Each	168.53	168.53	
075200	Providing and fixing IS-1378 marked oxidised M.S. tower bolts black finish (Barrel type) with necessary screws etc. complete of size :				
075201	250mmx10mm	Each	93.66	93.66	
075202	200mmx10mm	Each	82.19	82.19	
075203	150mmx10mm	Each	68.60	68.60	
075204	100mmx10mm	Each	33.99	33.99	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
075210	Providing and fixing IS:1378 marked 85mmx42mm oxidised M.S. pull bolt lock conforming to IS:7534 with necessary screws bolts, nuts and washers etc. complete	Each	137.80	137.80	
075220	Providing and fixing ISI marked oxidised M.S. door latches conforming to IS: m5930 with screws etc. complete				
075221	300mmx20mmx6mm	Each	140.04	140.04	
075222	250mmx20mmx6mm	Each	126.97	126.97	
075230	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 - with necessary screws etc. of size :				
075231	125mm	Each	18.18	18.18	
075232	100mm	Each	12.85	12.85	
075233	75mm	Each	10.24	10.24	
075240	Providing and fixing ISI-1378 marked copper oxidised M.S. fan light pivot with necessary screws etc. complete	Each	22.91	22.91	
075250	Providing and fixing ISI-1378 marked copper oxidised M.S. fan light catch with necessary screws etc. complete	Each	19.46	19.46	
075260	Providing and fixing 300mm long oxidised M.S. chain with hook for fan light including necessary screws etc. complete	Each	15.73	15.73	
075270	Providing and fixing oxidised M.S. hasp and staple (Safety type) conforming to IS : 363 with necessary screws etc. complete of size :				
075271	150mm	Each	53.22	53.22	
075272	115mm	Each	34.71	34.71	
075273	90mm	Each	30.06	30.06	
075280	Providing and fixing IS-1378 marked copper oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete				
075281	300mm weighing not less than 200 gm	Each	103.02	103.02	
075282	250mm weighing not less than 150 gm	Each	96.74	96.74	
075283	200mm weighing not less than 120 gm	Each	96.74	96.74	
075290	Providing and fixing oxidised M.S. safety chain with necessary fixtures for doors (weighing not less than 450 gm)	Each	202.58	202.58	
	STAINLESS STEEL FITTINGS :				
076010	Providing and fixing ISI:12817 marked stainless steel butt hinges with stainless steel screws etc. complete of size :				
076011	125mmx64mmx1.9mm	Each	61.69	61.69	
076012	100mmx58mmx1.9mm	Each	48.26	48.26	
076013	75mmx47mmx1.8mm	Each	30.93	30.93	
076014	50mmx37mmx1.5mm	Each	19.68	19.68	
076020	Providing and fixing IS:12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :				
076021	125mmx64mmx2.5mm	Each	63.00	63.00	
076022	100mmx60mmx2.5mm	Each	54.79	54.79	
076023	75mmx50mmx2.5mm	Each	46.61	46.61	
	BRASS FITTINGS - BRIGHT SATIN FINISH :				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
077010	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete				
077011	125mmx85mmx5.5mm (heavy type)	Each	343.36	343.36	
077012	125mmx70mmx4mm (ordinary type)	Each	319.84	319.84	
077013	100mmx85mmx5.5mm (heavy type)	Each	277.00	277.00	
077014	100mmx70mmx4mm (ordinary type)	Each	233.88	233.88	
077015	75mmx65mmx4mm (heavy type)	Each	112.08	112.08	
077016	75mmx40mmx2.5mm (ordinary type)	Each	96.66	96.66	
077017	50mmx40mmx2.5mm (ordinary type)	Each	29.64	29.64	
077020	Providing and fixing bright finished brass parliamentary hinges with necessary screws etc. complete :				
077021	150mmx125mmx27mmx5mm	Each	531.40	531.40	
077022	125mmx125mmx27mmx5mm	Each	460.84	460.84	
077023	100mmx125mmx27mmx5mm	Each	390.28	390.28	
077024	75mmx100mmx20mmx3.2mm	Each	353.67	353.67	
077030	Providing and fixing bright finished brass single acting spring hinges with necessary screws etc. complete of size :				
077031	150mm	Each	505.55	505.55	
077032	125mm	Each	427.73	427.73	
077033	100mm	Each	351.60	351.60	
077040	Providing and fixing bright finished brass double acting spring hinges with necessary screws etc. complete of size -				
077041	150mm	Each	890.05	890.05	
077042	125mm	Each	748.35	748.35	
077043	100mm	Each	608.33	608.33	
077050	Providing and fixing bright finished brass sliding doors bolts - with screws etc. complete of size :				
077051	300mmx16mm	Each	598.35	598.35	
077052	250mmx16mm	Each	428.48	428.48	
077060	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
077061	250mmx10mm	Each	188.18	188.18	
077062	200mmx10mm	Each	130.78	130.78	
077063	150mmx10mm	Each	102.69	102.69	
077064	100mmx10mm	Each	74.25	74.25	
077070	Providing and fixing bright finished brass handles - with screws etc. complete of size :				
077071	125mm	Each	224.00	224.00	
077072	100mm	Each	217.46	217.46	
077073	75mm	Each	204.40	204.40	
077080	Providing and fixing bright finished brass door latch with necessary screws etc. complete :				
077081	300mmx16mmx5mm	Each	429.76	429.76	
077082	250mmx16mmx5mm	Each	429.76	429.76	
077090	Providing and fixing bright finished brass 100mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	Each	904.72	904.72	
077100	Providing and fixing bright finished brass 100mm mortice latch with one dead bolt and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	Each	904.72	904.72	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
077110	Providing and fixing bright finished brass night latch including necessary screws etc. complete (best make of approved quality)	Each	904.72	904.72	
077120	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers including necessary screws etc. complete (best make of approved quality) :				
077121	40mm	Each	137.70	137.70	
077122	50mm	Each	137.70	137.70	
077123	65mm	Each	157.94	157.94	
077124	75mm	Each	178.20	178.20	
077130	Providing and fixing 50mm bright finished brass cup board or ward robe knob with necessary screws (best make of approved quality)	Each	82.93	82.93	
077140	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws etc. complete	Each	129.80	129.80	
077150	Providing and fixing bright finished brass fan light pivot with necessary screws etc. complete	Each	39.25	39.25	
077160	Providing and fixing bright finished brass fan light catch with necessary screws etc. complete	Each	36.09	36.09	
077170	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete				
077171	150mm	Each	78.83	78.83	
077172	115mm	Each	59.33	59.33	
077173	90mm	Each	51.20	51.20	
077180	Providing and fixing IS:3564 marked aluminium die cast body tubular type universal hydraulic door closer, hardwyn make (Classic Queen) or equivalent with necessary accessories and screws etc. complete	Each	655.61	655.61	
077190	Providing and fixing IS:3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc. complete :				
077191	Hardwyn make (Eddy) or equivalent	Each	1178.29	1178.29	
077192	Hardwyn make (Mytel) or equivalent	Each	786.28	786.28	
077193	Hardwyn make (Gazel) or equivalent	Each	1210.96	1210.96	
077200	Providing and fixing bright finished brass casement window fastener with necessary screws etc. complete	Each	270.72	270.72	
077210	Providing and fixing bright finished brass casement (straight peg type) with necessary screws etc. complete :				
077211	300mm weighing not less than 330 gm	Each	174.87	174.87	
077212	250mm weighing not less than 280 gm	Each	166.08	166.08	
077213	200mm weighing not less than 240 gm	Each	159.56	159.56	
077220	Providing and fixing nickel chromium plated brass butt hinges with necessary screws etc. complete :				
077221	125mmx85mmx5.5mm (heavy type)	Each	751.31	751.31	
077222	125x70x4mm (ordinary type)	Each	351.47	351.47	
077223	100mmx85mmx5.5mm (heavy type)	Each	706.88	706.88	
077224	100mmx70mmx4mm (ordinary type)	Each	304.42	304.42	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
077225	75mmx65mmx4mm (heavy type)	Each	275.68	275.68	
077226	75mmx40mmx2.5mm (ordinary type)	Each	152.85	152.85	
077227	50mmx40mmx2.5mm (ordinary type)	Each	128.00	128.00	
077230	Providing and fixing Nickel chromium plated brass parliamentary hinges with necessary screws etc. complete :				
077231	150mmx125mmx27mmx5mm	Each	347.43	347.43	
077232	125mmx125mmx27mmx5mm	Each	333.23	333.23	
077233	100mmx125mmx27mmx5mm	Each	321.61	321.61	
077234	75mmx100mmx20mmx3.2mm	Each	294.31	294.31	
077240	Providing and fixing Nickel chromium plated brass single acting spring hinges with necessary screws etc. complete :				
077241	150mm	Each	1375.58	1375.58	
077242	125mm	Each	1310.24	1310.24	
077243	100mm	Each	1239.68	1239.68	
077250	Providing and fixing Nickel chromium plated brass double acting spring hinges with necessary screws etc. complete :				
077251	150mm	Each	2682.30	2682.30	
077252	125mm	Each	2551.63	2551.63	
077253	100mm	Each	2415.69	2415.69	
077260	Providing and fixing Nickel chromium plated brass sliding doors bolts and screws etc. complete :				
077261	300mmx16mm	Each	600.27	600.27	
077262	250mmx16mm	Each	430.41	430.41	
077270	Providing and fixing Nickel chromium plated brass tower bolts (barrel type) with necessary screws etc. complete :				
077271	250mmx10mm	Each	630.30	630.30	
077272	200mmx10mm	Each	504.86	504.86	
077273	150mmx10mm	Each	379.39	379.39	
077274	100mmx10mm	Each	261.19	261.19	
077280	Providing and fixing Nickel chromium plated brass handles with necessary screws etc. complete :				
077281	125mm	Each	204.08	204.08	
077282	100mm	Each	171.42	171.42	
077283	75mm	Each	138.75	138.75	
077290	Providing and fixing chromium plated brass door latch with necessary screws etc. complete :				
077291	300mmx16mmx5mm	Each	692.30	692.30	
077292	250mmx16mmx5mm	Each	626.97	626.97	
077300	Providing and fixing nickel chromium plated brass fan light pivot with necessary screws etc. complete	Each	52.08	52.08	
077310	Providing and fixing nickel chromium plated brass fan light catch with necessary screws etc. complete	Each	40.77	40.77	
077320	Providing and fixing nickel chromium plated brass hasp and staple (safety type) with necessary screws etc. complete :				
077321	150mm	Each	103.95	103.95	
077322	115mm	Each	76.95	76.95	
077323	90mm	Each	67.21	67.21	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
077330	Providing and fixing chromium plated brass 100mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	Each	708.71	708.71	
077340	Providing and fixing chromium plated brass 100mm mortice latch with one dead bolt and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	Each	704.48	704.48	
077350	Providing and fixing chromium plated brass night latch including necessary screws etc. complete (best make of approved quality)	Each	1362.06	1362.06	
077360	Providing and fixing special quality chromium plated brass cup board locks with six levers including necessary screws etc. complete (best make of approved quality) of :				
077361	Size 40mm	Each	120.70	120.70	
077362	Size 50mm	Each	146.84	146.84	
077363	Size 65mm	Each	251.37	251.37	
077364	Size 75mm	Each	447.37	447.37	
077370	Providing and fixing nickel chromium plated brass 50mm cupboard or wardrobe knobs with nuts complete	Each	96.00	96.00	
077380	Providing and fixing nickel chromium plated brass hanging type floor door stopper with necessary screws etc. complete	Each	137.00	137.00	
077390	Providing and fixing nickel chromium plated brass casement window fastener with necessary screws etc. complete	Each	436.93	436.93	
077400	Providing and fixing nickel chromium plated brass casement stays (straight peg type) with necessary screws etc. complete				
077401	300mm weighing not less than 330 gm	Each	182.14	182.14	
077402	250mm weighing not less than 280 gm	Each	162.53	162.53	
077403	200mm weighing not less than 240 gm	Each	146.20	146.20	
077410	Providing and fixing copper oxidised brass butt hinges with necessary screws etc. complete :				
077411	125mmx85mmx5.5mm (heavy type)	Each	719.30	719.30	
077412	125mmx70mmx4mm (ordinary type)	Each	319.45	319.45	
077413	100mmx85mmx5.5mm (heavy type)	Each	687.05	687.05	
077414	100mmx70mmx4mm (ordinary type)	Each	284.56	284.56	
077415	75mmx65mmx4mm (heavy type)	Each	261.36	261.36	
077416	75mmx40mmx2.5mm (ordinary type)	Each	138.51	138.51	
077417	50mmx40mmx2.5mm (ordinary type)	Each	117.15	117.15	
077420	Providing and fixing copper oxidised brass parliamentary hinges with necessary screws etc. complete :				
077421	150mmx125mmx27mmx5mm	Each	304.59	304.59	
077422	125mmx125mmx27mmx5mm	Each	313.36	313.36	
077423	100mmx125mmx27mmx5mm	Each	301.75	301.75	
077424	75mmx100mmx20mmx3.2mm	Each	269.33	269.33	
077430	Providing and fixing copper oxidised brass single acting spring hinges with necessary screws etc. complete :				
077431	150mm	Each	1349.95	1349.95	
077432	125mm	Each	1284.62	1284.62	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
077433	100mm	Each	1219.81	1219.81	
077440	Providing and fixing copper oxidised brass double acting spring hinges with necessary screws etc. complete :				
077441	150mm	Each	2656.64	2656.64	
077442	125mm	Each	2525.97	2525.97	
077443	100mm	Each	2395.83	2395.83	
077450	Providing and fixing copper oxidised brass sliding doors bolts and screws etc. complete :				
077451	300mmx16mm	Each	796.17	796.17	
077452	250mmx16mm	Each	665.50	665.50	
077460	Providing and fixing copper oxidised brass tower bolts (barrel type) with necessary screws etc. complete :				
077461	250mmx10mm	Each	606.81	606.81	
077462	200mmx10mm	Each	486.08	486.08	
077463	150mmx10mm	Each	365.28	365.28	
077464	100mmx10mm	Each	247.68	247.68	
077470	Providing and fixing copper oxidised brass handles with necessary screws etc. complete :				
077471	125mm	Each	204.23	204.23	
077472	100mm	Each	171.57	171.57	
077473	75mm	Each	138.82	138.82	
077480	Providing and fixing copper oxidised brass door latch with necessary screws etc. complete :				
077481	300mmx16mmx5mm	Each	671.14	671.14	
077482	250mmx16mmx5mm	Each	605.80	605.80	
077490	Providing and fixing copper oxidised brass fan light pivot with necessary screws etc. complete	Each	49.70	49.70	
077500	Providing and fixing copper oxidised brass fan light catch with necessary screws etc. complete	Each	38.06	38.06	
077510	Providing and fixing copper oxidised brass hasp and staple (safety type) with necessary screws etc. complete :				
077511	150mm	Each	105.61	105.61	
077512	115mm	Each	90.17	90.17	
077513	90mm	Each	73.89	73.89	
077520	Providing and fixing copper oxidised brass 100mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	Each	1227.51	1227.51	
077530	Providing and fixing copper oxidised brass 100mm mortice latch with one dead bolt and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	Each	900.95	900.95	
077540	Providing and fixing copper oxidised brass night latch including necessary screws etc. complete (best make of approved quality)	Each	1359.45	1359.45	
077550	Providing and fixing special quality copper oxidised brass cup board locks with six levers including necessary screws etc. complete (best make of approved quality) of :				
077551	Size 40mm	Each	261.84	261.84	
077552	Size 50mm	Each	273.45	273.45	
077553	Size 65mm	Each	290.87	290.87	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
077554	Size 75mm	Each	308.30	308.30	
077560	Providing and fixing copper oxidised brass 50mm cupboard or wardrobe knobs with nuts complete	Each	95.68	95.68	
077570	Providing and fixing copper oxidised brass hanging type floor door stopper with necessary screws etc. complete	Each	138.02	138.02	
077580	SIZING	Each	436.83	436.83	
077590	Providing and fixing copper oxidised brass casement stays (straight peg type) with necessary screws etc. complete :				
077591	300mm weighing not less than 330 gm	Each	280.03	280.03	
077592	250mm weighing not less than 280 gm	Each	263.70	263.70	
077593	200mm weighing not less than 240 gm	Each	247.36	247.36	
077600	Providing and fixing magnetic catcher ISI marked with necessary screws etc. complete	Each	17.77	17.77	
	ALUMINIUM FITTING - (ANODISED) GYPBOARD				
078010	Providing and fixing ISI marked aluminium butt hinges 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 :				
078011	125mmx75mmx4mm	Each	141.25	141.25	
078012	125mmx63mmx4mm	Each	141.25	141.25	
078013	100mmx75mmx4mm	Each	109.78	109.78	
078014	100mmx63mmx4mm	Each	109.78	109.78	
078015	100mmx63mmx3.2mm	Each	109.78	109.78	
078016	75mmx63mmx4mm	Each	80.93	80.93	
078017	75mmx63mmx3.2mm	Each	80.93	80.93	
078018	75mmx45mmx3.2mm	Each	70.48	70.48	
	Note : Aluminium hinges shall not be used in wooden shutters, stainless hinges shall be preferred.				
078020	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 :				
078021	300mmx16mm	Each	240.43	240.43	
078022	250mmx16mm	Each	201.23	201.23	
078030	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 :				
078031	300mmx10mm	Each	128.41	128.41	
078032	250mmx10mm	Each	115.34	115.34	
078033	200mmx10mm	Each	102.28	102.28	
078034	150mmx10mm	Each	89.16	89.16	
078035	100mmx10mm	Each	66.95	66.95	
078040	Providing and fixing aluminium pull bolt lock anodised ISI marked (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	72.46	72.46	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078050	Providing and fixing 50cm long aluminium kicking plate 100x3.15mm 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	672.89	672.89	
078060	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				
078061	125mm	Each	75.30	75.30	
078062	100mm	Each	56.90	56.90	
078063	75mm	Each	43.83	43.83	
078070	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 :				
078071	Single rubber stopper	Each	35.19	35.19	
078072	Twin rubber stopper	Each	48.26	48.26	
078080	Providing and fixing aluminium casement stays 250mm long 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	71.06	71.06	
078090	Providing and fixing bright finished brass 100mm mort lock 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 with necessary screws etc. complete (best make of approved quality)	Each	1428.45	1428.45	
078100	Providing and fixing aluminium tee channels (heavy duty) with rollers, stop end in pelmets as curtain rod	metre	234.72	234.72	
078110	Providing and fixing partition upto 2.4m height having composite thickness of 67mm consisting of frame and double skin 8.5mm thick Glass Reinforced Gypsum (GRG) board manufactured by spray suction technique with high strength plaster of paris conforming to IS:8272 and glass fibre of E-glass or A-glass or N-glass in the form of rovings, not less than 2.5% by weight of plaster of paris and conforming to IS:11320 including providing and fixing of frame work made of special section power pressed from MS sheet and galvanised with zinc coating.. contd...	Sqm	977.17	977.17	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	contd.- of Grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50mm thick fixed to floor/ceiling at spacing of 610mm centre to centre with dash fastener of 12.5mm diameter, 40mm length and the studs 48mm wide having one flange of 34mm and another flange 36mm and 0.50mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610mm centre to centre by 6mm dia bolts and nuts at both ends of partition fixed flush to wall with rawl plugs at the spacing of 450mm centre to centre and fixing of GRG boards to either side of frame work by 20mm long drive all screws on studs, floors and ceiling channels at the spacing of 300mm centre to centre, including jointing and finishing to a flush finish with recommended joint filler, joint paper tap and joint finisher and two coats of primer suitable for GRG board as per manufacturers specifications all complete.				
078120	Providing and fixing partition upto 2.4m height having composite thickness of 89mm consisting of frame and double skin 8.5mm thick Glass Reinforced Gypsum (GRG) board manufactured by spray suction technique with high strength plaster of paris conforming to IS: 8272 and glass fibre of E-glass or A-glass or N-glass in the form of rovings, not less than 2.5% by weight of plaster of paris and conforming to IS:11320 including providing and fixing of frame work made of special section power pressed from MS sheet and galvanised with zinc coating of Grade 175 and consisting of floor and ceiling channel 72mm wide having equal flanges of 32mm width 0.50mm thick fixed to floor/ceiling at the spacing of 610mm centre to centre with dash fastener of 12.5mm diameter 40mm length and the studs 70mm wide having one flange of 34mm - contd....	Sqm	1057.18	1057.18	
	contd.- and another flange 36mm and 0.50mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610mm centre to centre by 6mm dia. bolts and nuts at both ends of partition fixed flush to wall with rawl plugs at the spacing of 450mm centre to centre and fixing of GRG boards to either side of frame work by 20mm long drive all screws on studs, floors and ceiling channels at the spacing of 300mm centre to centre including jointing and finishing to a flush finish with recommended joint filler, joint paper tap and joint finisher and two coats of primer suitable for GRG board as per manufacturers specifications all complete.				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078130	Providing and fixing factory made P.V.C. door frame of size 50mmx47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitered at corners and joined with 2 nos. of 150mm long brackets of 15mmx15mm M.S. square tube, the vertical door profiles to be reinforced with 19mmx19mm 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 65mm/100mm size complete as per manufacturers specification and direction of Engineer-in-Charge	metre	400.21	400.21	
078140	Providing and fixing to existing door frames 30mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mmx19mm for styles and 15mmx15mm for top & bottom rails. MS frame shall have a coat of steel primers. MS frame covered with 5mm thick heat moulded PVC Foam sheet 'C' channel as per drawing given in IR Standard Specifications complete in all respect	Sqm	1968.16	1968.16	
078150	Providing and fixing to existing door frames 30mm thick factory made solid both side prelaminate panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mmx19mm for styles and 15mmx15mm, top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5mm thick heat moulded prelaminate PVC Foam Sheet 'C' channel as per drawing given in IR Standard Specifications complete in all respect	Sqm	2107.54	2107.54	
078160	Supplying, providing and fixing white colour sliding uPVC Window complete, consisting of uPVC frame of size 80mmx52mm and uPVC shutter of size 54mmx38mm with 1.2mm thick GI section reinforcement wherever required, produced by ISO 9001:2000 and ISO 14001:2004 certified company. Window shutter will consist either of 5mm thick float glass or galvanised wire gauge alongwith complete fittings, e.g. pulley/rollers, transmission gear and handle for operating window	Sqm	5033.94	5033.94	
078170	Supplying, providing and fixing white colour sliding uPVC Door complete, consisting of uPVC frame of size 95mmx60mm and uPVC shutter of size 66mmx42mm with 1.2mm thick GI section reinforcement wherever required, produced by ISO 9001:2000 and ISO 14001:2004 certified company. Door shutter will consist either of 5mm thick float glass or galvanised wire gauge or solid PVC panel alongwith complete fittings, e.g. pulley/rollers, transmission gear and handle for operating door.	Sqm	4765.48	4765.48	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078180	Providing and fixing to existing door frame 24mm thick factory made PVC door shutters made of styles and rails of a PVC hollow section of size 59mmx24mm with a wall thickness 2mm±0.2mm. The styles and rails mitred cut and joined at corners by means of M.S. galvanized/plastic brackets of size 75mmx220mm having wall thickness 1.0mm/solid and fix with stainless steel screws. The styles of shutter reinforced by inserting galvanized .. contd. -	Sqm	838.33	838.33	
	.. contd. - M.S. tube of size 19mm x 19mm with a wall thickness 1mm±0.1mm. The lock rail made out of 'H' section, PVC hollow section of size 100mmx24mm with a wall thickness 2mm±0.2mm, fixed to shutter styles by means of plastic/galvanized M.S. 'U' cleats. The shutter frame filled with a PVC multi-chambered panel of size 20mmx200mm with a wall thickness 1mm±0.1mm. The panels filled vertically and tie bar at two places by inserting horizontally 0.6mm galvanized M.S. rod and fastened with nuts and washers.				
078190	Providing and fixing to existing door frame 24mm thick factory made PVC door shutters made of styles and rails of a PVC hollow section of size 34mmx24mm with a wall thickness 2mm±0.2mm. The styles and rails mitred cut and joined at corners by means of M.S. galvanized/plastic brackets of size 75mmx 220mm having wall thickness 1.0mm/solid and fix with stainless steel screws. The styles of shutter reinforced by inserting galvanized M.S. tube of size 19mmx19mm with a wall thickness 1mm±0.1mm. The shutter frame filled with a PVC multi-chambered single panel of size 20mmx 762mm with a wall thickness 1mm±0.1mm. The panels filled vertically and tie bar at two places by inserting horizontally 0.6mm galvanized M.S. rod and fastened with nuts and washers. All complete as per manufacturer's specification and direction of Engineer-In-Charge	Sqm	1748.81	1748.81	
078200	Providing and fixing at all heights wall paneling of 12mm thick phenol bonded Bamboo Mat board conforming to IS:13958-1994 including providing and fixing to frame work made of 50mmx50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good walls etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of paneling etc. with iron screws as a complete job.	Sqm	1982.25	1982.25	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078210	Providing and fixing at all heights wall paneling of 9mm thick phenol bonded Bamboo Mat board conforming to IS:13958-1994 including providing and fixing to framework made of 50mm X 50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good the walls etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of paneling etc. with iron screws as a complete job	Sqm	1795.39	1795.39	
078220	Providing and fixing Veneered Bamboo Particle Board both sides commercial Veneer SOGP Grade II, conforming to IS :3097-1980 in wall paneling, cupboard shutters etc. fixed to frames, backing or studding with screws etc. complete (Frame, backing, studding, hinges etc. to be paid seperately)				
078221	9mm thick veneered bamboo particle board	Sqm	611.06	611.06	
078222	12mm thick veneered bamboo particle board	Sqm	685.15	685.15	
078223	18mm thick veneered bamboo particle board	Sqm	870.37	870.37	
078224	25mm thick veneered bamboo particle board	Sqm	1093.80	1093.80	
078230	Providing and fixing of wall panelling on grid made of PVC profile section of size 21mmx17mmx1.5 mm filled with UPVC profile section of size 150mmx10mmx1.0mm. The edge and periphery covered by extruded PVC beeding of section 28mmx12mmx1.0mm complete job including fixing with screws, dash fasteners and other accessories as required	Sqm	775.21	775.21	
078240	Providing and fixing to existing door frame 30mm thick factory made Poly Vinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60mmx30mm and wall thickness 2mm±0.2mm with inbuilt decorative mould-in edging on one side. The styles and rails mitered and joined at corners by means of MS galvanized/plastic bracket of size 75mmx220mm, having wall thickness 1.0mm and stainless steel screws. .. contd. --	Sqm	2987.11	2987.11	
	.. contd. - Styles of shutter, reinforced by inserting galvanized MS tube of size 20mmx20mm and 1mm ± 0.1 mm wall thickness. Lock rail made of 'H' section, a uPVC hollow section of size 100mmx 30mm and 2mm ± 0.2m wall thickness fixed to shutter styles by means of plastic/galvanized MS 'U' cleats. Shutter frame filled with a uPVC multi-chambered single panel of size not less than 610mm, having overall thickness of 20mm and 1mm ± 0.1 mm wall thickness. Panels filled vertically with tie bar at two places by inserting horizontally 6mm galvanised MS rod and fastened with nuts and washers, complete as per direction of Engineer incharge				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078250	Providing and fixing to existing door frame 35mm thick factory made Poly Vinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 35mmx110mm and wall thickness 2mm±0.2mm with inbuilt decorative moulding edging on one side. Styles of shutter reinforced by inserting PVC section of size 28mmx30mm of 1.5mm ± 0.2mm wall thickness. Styles and rails mitered and welded corners. Lock rail made of 'H' section, a uPVC profile section of size 35mmx105mm and 2mm ± 0.2m wall thickness welded to shutter styles, shutter frame filled with a uPVC multi-chambered single panel of size not less than 610mm, having overall thickness of 20mm and 1mm ± 0.1mm wall thickness with 20mm moulding panel beading of size 8.5mmx15mm complete as per direction of Engineer in charge.	Sqm	3454.08	3454.08	
078260	Providing and fixing to existing door frame 38mm thick factory made Poly Vinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 90mmx38mm and wall thickness 2mm±0.2mm. Styles and rails mitered and joined at the corners by means of MS galvanized/plastic bracket of size 75mmx220mm having wall thickness 1.0mm and stainless steel screws. Styles of shutter reinforced by inserting galvanized MS tube of size 25mmx20mm and 1mm ± 0.1 mm wall thickness. Lock rail made of 'H' section, a uPVC hollow section of size 105mmx 38mm and 2mm ± 0.2m wall thickness fixed to the shutter styles by means of plastic /galvanized MS 'U' cleats. Shutter frame filled with a uPVC multi-chambered PVC panel of size 610mmx 20mm with 1.2mm ± 0.1mm wall thickness, complete as per direction of Engineer incharge.	Sqm	3623.25	3623.25	
078270	Providing and fixing factory made uPVC door frame made of uPVC extruded section profile size 50mmx60mm (±1mm) with wall thickness 2mm±0.2mm, corners of door frame to be mitered and joined at corners by means of plastic, galvanized brackets and stainless steel screws. Hinge side vertical of frames reinforced by galvanized MS tube of size 19mmx38mm and 1mm ± 0.1mm wall thickness and 3 nos. stainless steel hinges fixed to frame complete as per direction of Engineer incharge	R metre	304.58	304.58	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078280	Providing and fixing factory made UPVC door frame made of uPVC extruded section having an overall dimension as below (tolerance $\pm 1\text{mm}$) with wall thickness $2\text{mm} \pm 0.2\text{mm}$, corners of door frame to be mitred and welded of plastic, galvanized brackets and stainless steel screws. Hinge side vertical of frames reinforced by galvanized MS tube of size $19\text{mm} \times 19\text{mm}$ and $1\text{mm} \pm 0.1\text{mm}$ wall thickness and 3 nos. stainless steel hinges fixed to frame complete as per direction of Engineer incharge.				
078281	Extruded section profile size $48\text{mm} \times 40\text{mm}$	R metre	304.58	304.58	
078282	Extruded section profile size $42\text{mm} \times 50\text{mm}$	R metre	196.27	196.27	
078290	Supplying, providing and fixing white colour Double lipped solid PVC window frame of size $42\text{mm} \times 115\text{mm}$ consisting of frame made of M.S. Tube of 19 gauge of size $15\text{mm} \times 15\text{mm}$ and solid PVC section made from 4mm thick (3.75mm PVC foam sheet laminated with 0.25mm rigid PVC sheet) suitably joined using PVC solvent cement so as to fix in walls using hold fasts. M.S. Window grill should be fixed suitably with sold PVC sections mitred cut on corners complete as per directions of Engineer Incharge.	RM	781.87	781.87	
078291	Supplying, providing and fixing white colour single lipped solid PVC window frame of size $50\text{mm} \times 35\text{mm}$ consisting of frame made of M.S. Tube of 19 gauge of size $15\text{mm} \times 15\text{mm}$ and solid PVC section made from 4mm thick (3.75mm PVC foam sheet laminated with 0.25mm rigid PVC sheet) suitably joined using PVC solvent cement so as to fix in walls using hold fasts. M.S. Window grill should be fixed suitably with sold PVC sections mitred cut on corners complete as per directions of Engineer Incharge.	RM	488.19	488.19	
078300	Supplying, providing and fixing 25 mm thick factory made white colour rigid glazed/wire gauge/PVC sheet PVC window shutter consisting of frame made of M.S. tube of 19mm gauge of size $15\text{mm} \times 15\text{mm}$ for style, top and bottom rails. M.S. frame shall have a coat of steel primer - M.S. frame shall be covered with 4 mm (3.75mm PVC foam sheet laminated with 0.25mm rigid PVC sheet) thick white colour moulded PVC C channel of size $50\text{mm} \times 25\text{mm} \times 50\text{mm}$ of window shutter forming style and rails filled with 4mm thick glass panes/wire gauge/PVC sheet in clear space available between style and rails using PVC bedding of size $23\text{mm} \times 16\text{mm}$ complete as per direction of Engineer Incharge (glass pane/wire gauge/PVC sheet to be paid extra)	sqm	2821.04	2821.04	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
078310	Providing and fixing of fibre glass reinforced plastic (FRP) door frames of three legged of cross-section 90mmx45 mm having single rebate of 32mmx15mm to receive shutter of 30mm thickness. The laminate door frame moulded with fire retardant 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 fibre glass from all sides. M.S. stay shall be provided at the bottom to ready the frame	RM	310.39	310.39	
078320	Providing and fixing 30mm thick glass fibre reinforced (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire retardant grade unsaturated polyester resin, moulded to 3mm thick FRP laminate for farming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5mm thick FRP laminate for panels and conforming to (IS:14856-2000) complete work	Sqm	2234.34	2234.34	
078330	Providing and fixing 30 mm thick fibre glass reinforced (FRP) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin moulded to 3mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and ployurethane foam (PUF)/Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with test parameters of F.R.P. laminate conforming to Table-3 of IS:14856-2000, complete as per directions of Engineer Incharge	Sqm	2259.34	2259.34	
078340	Providing & fixing in position concealed GI section for wall panelling using Board of required thickness, fixed on the 'W' profile (0.55mm thick) having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 610mm c/c in perimeter channel, having one flange of 20mm and another flange of 30mm with thickness of 0.55mm and web of length 27mm. Perimeter channel is fixed on the floor and the ceiling with nylon sleeves at 610mm c/c with fully threaded self-tapping dry wall screws. Board is fixed to 'W' profile with 25mm countersunk ribbed head-screws at 200mm c/c, all complete as per drawing & directions of engineer-in-charge. Joints of boards are finished with specially formulated jointing compound and 48mm wide jointing tape to provide seamless finish				
078341	8mm thick non-asbestos multipurpose cement board, reinforced with cellulose fibre manufactured through auto-claving process (high pressure steam-cured) as per IS:14862 with suitable fibre cement screw	Sqm	646.55	646.55	
New Items To Be Added By Zonal Railways					

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
079010					
079020					
079030					
079040					
079050					

CHAPTER - 8 : STEEL AND ALUMINIUM WORK					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	STEEL WORK				
081010	Structural steel work in single section including cutting, bending, straightening, drilling, rivetting, bolting, hoisting, fixing in position, including applying a priming coat of approved steel primer, complete - upto 6m height above GL				
081011	In RSJ, tees, angles and channels	Kg	54.25	54.25	
081012	In flats, plates, round or square bars	Kg	54.61	54.61	
081020	Structural steel work riveted or bolted in built up sections, trusses and framed work, girders, staging, racks etc. including cutting, bending, straightening, drilling, rivetting, bolting, hoisting, fixing in position including applying a priming coat of a approved steel primer complete - upto 6m height above GL				
081021	In RSJ, tees, angles and channels	Kg	71.48	71.48	
081022	In flats, plates, round or square bars	Kg	73.41	73.41	
081030	Structural steel work welded in built up sections, trusses and framed work, girders, stagings, racks, etc. including cutting, bending, straightening, hoisting, fixing in position including applying a priming coat of approved steel primer complete - upto 6m height above GL				
081031	In RSJ, tees, angles and channels	Kg	67.59	67.59	
081032	In flats, plates, round or square bars	Kg	69.64	69.64	
	Note for Item 081030 : Purlins and wind bracings shall be paid separately under item 81010.				
	Note for Items 081011, 081021 & 081022 : These rates are not to be paid for ironwork with rails, which should be paid under each item separately.				
081040	Extra for every subsequent 3m height or part thereof over 6m height above GL for erection and fixing of steel work :				
081041	Over item no. 081012	Kg	3.31	3.31	
081042	Over item no. 081022	Kg	3.71	3.71	
081043	Over item no. 081032	Kg	2.95	2.95	
081050	Erecting roof trusses, tank stagings, steel tanks etc. including rivetting for work upto 10m height above GL	quintal	258.32	258.32	
081060	Extra to item no. 081050 for every subsequent 5m height or part thereof over 10m height above GL	quintal	64.58	64.58	
081070	Erecting rails in posts, platform wall copings etc. including necessary cutting and drilling	quintal	82.47	82.47	
081080	Riveting including reaming holes where necessary for every 5mm dia. or part thereof	100 rivets	133.86	133.86	
081090	Cutting out rivets for every 5mm or part thereof	100 rivets	67.56	67.56	
081100	Providing and fixing MS round or square bars / flats or grills in frames in window and clerestory windows	Sqm	52.74	52.74	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
081110	Providing and fixing expanded metal 20mmX60mm strands 3.25mm wide and 1.6mm thick on angle iron flat iron frames including all incidental work complete. Cost of frames to be paid separately under relevant item	Sqm	313.43	313.43	
081120	Providing and fixing hard drawn steel wire fabric 75mmX25mm mesh of weight not less than 7.75 kg/sqm on angle iron or flat iron frame including all incidental work complete. Cost of frames to be paid separately under relevant item.	Sqm	563.21	563.21	
081130	Providing and fixing MS flat 25mmx6mm covering over expanded metal/hard drawn wire fabric edges (executed as per Items 081110 and 081120) along the perimeter of the angle iron or flat iron framework including all incidental work, complete	metre	125.22	125.22	
081140	Supplying and fixing lewis/holding down bolts of approved design with nuts and washers complete	Kg	58.36	58.36	0.020
081150	Rethreading bolts per 5mm dia, or part thereof per cm length, or part thereof, of threading	cm	3.91	3.91	
081160	Cutting standard screw thread per 5mm dia. or part thereof per cm length, or part thereof, of threading when separately ordered	cm	8.75	8.75	
081170	Cutting round/square bars per 10 mm dia/width or part thereof when separately ordered	Each	0.57	0.57	
081180	Providing and fixing in position collapsible steel shutters with vertical channels 20mmx10mmx2mm and braced with flat iron diagonals 20mmx5mm size with top and bottom rail of T-iron 40mmx40mmx6mm with 40mm dia. steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles and hold fasts including applying a priming coat of approved steel primer	Sqm	2909.26	2909.26	0.004
081190	Providing and fixing 1mm thick M.S. sheet sliding-shutters with frame and diagonal braces of 40mmx40mmx6mm angle iron, 3mm M.S. gusset plate at the junction and corners 25mm dia pulley 40mmx40mmx6mm angle and T-iron guide at the top and bottom respectively with bolts, nuts, locking arrangement, clamping arrangement, stoppers, handles and hold fasts including applying a priming coat of approved steel primer	Sqm	2757.04	2757.04	0.004
081200	Providing and fixing 1mm thick M.S. sheet door shutter with frame of 40mmx40mmx6mm angle iron and 3mm M.S. gusset plates at the junctions and corners, all necessary fittings complete including applying a priming coat of approved steel primer				
081201	Using M.S. angles 40mmx40mmx6mm for diagonal braces	Sqm	2291.73	2291.73	0.004
081202	Using flats 30mmx6mm for diagonal braces and central cross piece	Sqm	2155.62	2155.62	0.004

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
081210	Supplying and fixing rolling shutters of approved make as per IS:6248, 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 27.5cm long wire spring grade no. 2 and M.S. top cover of required thickness for rolling shutters :				
081211	80mmx1.25mm M.S. laths with 1.25mm thick top cover	Sqm	2411.77	2411.77	0.004
081212	80mmx1.20mm M.S. laths with 1.20mm thick top cover	Sqm	2607.32	2607.32	0.004
081213	80mmx0.90mm M.S. laths with 0.90mm thick top cover	Sqm	2173.70	2173.70	0.004
081220	Providing and fixing ball bearing for rolling shutters	Each	306.08	306.08	
081230	Extra for providing mechanical device chain and crank operation for operating rolling shutters :				
081231	Exceeding 10.0 sqm and upto 16.8 sqm in the area	Sqm	385.33	385.33	
081232	Exceeding 16.8 sqm in area	Sqm	783.08	783.08	
081240	Extra for providing grilled rolling shutters manufactured out of 8mm dia. M.S. bar instead of laths as per design approved by the Engineer-in-Charge (area of grill to be measured)	Sqm	232.30	232.30	
081250	Providing and fixing ISI standard steel glazed doors, windows and ventilators of standard rolled steel sections (shutters & frame), joints mitered and welded with 15mmx3mm lugs, 10cm long, embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate-20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing glass panes with glazing clips and special metal sash putty of approved make, necessary fittings such as brass handles, brass peg stays, brass spring catch, bolts, hinges, locks etc. as required, applying a priming coat of approved steel primer; but excluding the cost of metal beading				
081251	Doors	Sqm	1422.22	1413.88	0.010
081252	Windows fixed	Sqm	1453.94	1445.60	0.010
081253	Windows-side hung	Sqm	1325.10	1316.75	0.010
081254	Ventilators-top hung	Sqm	1325.10	1316.75	0.010
081255	Ventilators-centre hung	Sqm	1325.10	1316.75	0.010
081260	Extra for providing and fixing steel beading of approved shape and section with screws instead of glazing clips and metal sash putty in steel doors, windows, ventilators and composite units	metre	16.05	16.05	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
081270	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitered and welded with 15mmx3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as require including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer	Kg	106.95	106.23	0.001
081280	Providing and fixing pressed steel door frames manufactured from commercial mild steel sheet of 1.25mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50mmx25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 25mm thick with mortar guard, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pretreatment of the surface as directed by the Engineer-in-Charge				
081281	Profile-A (105mmx60mm) Single rebate	metre	1838.39	1838.39	
081282	Profile-B (125mmx60mm) Single rebate	metre	2128.76	2128.76	
081283	Profile-C (160mmx60mm) Double rebate	metre	2388.70	2388.70	
081290	Steel work in built-up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete				
081291	Hot finished welded type tubes	Kg	121.57	121.57	
081292	Hot finished seamless type tubes	Kg	159.64	159.64	
081293	Electric resistant or induction butt welded tubes	Kg	121.57	121.57	
081300	Providing and fixing 20mmx6mm mild steel 15cm long clamps for securing chick tops	Each	15.10	15.10	
081310	Providing and fixing mild-steel rings of 6mm round bars and 40mm internal dia. for fastening ropes of chicks	Each	11.44	11.44	
081320	Providing and fixing M.S. fan clamp of 16mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs during laying including painting the exposed portion of loop, all as per standard design complete	Each	91.63	91.63	
081330	Extra over rate of Item no. 081320 for providing and fixing M.S. fan clamp as per design in R.C.C. beams during laying towards the additional height of the clamps due to beam rib	cm height	1.39	1.39	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
081340	Providing and fixing circular cast iron box for ceiling fan clamps 140mm internal dia. 73mm height, 5mm thick rim, bottom and top lid of 1.5mm thick M.S. sheet with its top surface hacked. For proper bonding top lid shall be screwed into the cast iron box by means of 3.3mm dia. round headed screws, one lock at the corners, clamps shall be made of 12mm dia. M.S. bar bent to shape as per standard drawing.	Each	123.11	123.11	
081350	Providing and fixing circular/hexagonal M.S. sheet ceiling fan box with clamps of internal dia 140mm, 73mm height, 3mm thick rim, top and bottom lid of 1.5mm M.S. sheet. Lids shall be screwed into M.S. box by means of 3mm round beaded screws, clamps shall be made of 12mm dia M.S. bar bent to shape as per standard drawing with over all length as 80cm. (it includes cost of clamps also)	Each	123.11	123.11	
081360	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete	Kg	90.28	90.28	
081370	Providing and fixing bolts including nuts and washers complete	Kg	109.07	109.07	
081380	Providing and fixing M.S. rivets of sizes in position	Kg	143.34	143.34	
081390	6mm welding by gas plant including transportation of gas welding plant at site etc. complete	cm	4.76	4.76	
081400	6mm welding by electric plant including transportation of electric welding plant at site etc. complete	cm	0.46	0.46	
081410	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				
081411	In stringers, treads, landings etc. of stair cases including use of chequered plate, wherever required all complete	Kg	56.91	56.91	
081412	In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works	Kg	59.52	59.52	
081420	Providing and fixing hand rail by welding etc. to steel ladders railing, balcony railing and staircase railing including applying a priming coat of approved steel primer				
081421	M.S. tube (medium) 40mm nominal bore	Kg	116.96	116.96	
081422	E.R.W. tubes 40mm nominal dia.	Kg	123.68	123.68	
081423	G.I. pipes 40mm nominal bore (class B)	Kg	87.85	87.85	
081430	Supplying and fixing to pan type latrines 0.91 mm thick M.S. Steel Flat Cover (hinged on 12mm dia. M.S. bar on top) with 6mm dia. bar handle welded or riveted on the flap (including all labour and material)	Sqm	636.50	636.50	
	ALUMINIUM WORK				
082010	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built-up standard tubular and other sections of approved make conforming to IS:733 .. contd. -				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	.. contd. - and IS:1285, anodised transparent or dyed to required shade according to IS:1868 (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitered and jointed mechanically wherever required including cleat angle. Aluminium snap beading for glazing/panelling, C.P. brass/stainless steel screws, all complete as per architectural drawings and directions of Engineer-in-charge. (Glazing & panelling to be paid for separately)				
082011	For fixed portion	Kg	243.60	243.60	0.001
082012	For openable/sliding portions and fixing hinges / pivots, PVC/neoprene gasket required and making provision for fixing of fittings. (Fittings shall be paid for separately)	Kg	262.31	262.31	
082020	Providing and fixing 12mm thick prelaminated three layer medium density (exterior grade) particle board Grade I, Type II conforming to IS:12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium 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				
082021	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	Sqm	525.88	525.88	
082022	Prelaminated particle board with decorative lamination on both sides	Sqm	614.46	614.46	
082030	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/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)				
082031	With float/frosted glass panes of 4mm thickness (weight not less than 10.0 kg/sqm)	Sqm	617.96	617.96	
082032	With float/frosted glass panes of 5.5mm thickness (weight not less than 13.75 kg/sqm)	Sqm	714.23	714.23	
082040	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS:6315 including cost of cutting floors as required, embedding in floors 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				
082041	With Stainless Steel cover plate	Each	2514.81	2514.79	
082042	With Brass cover plate	Each	3978.66	3975.84	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
082050	Providing and fixing anodised aluminium work (with minimum 15 micron uniform anodic coating) 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 rawl plugs @ 450mm centre to centre and fixing the frame work to level adjusting hangers (6mm dia. M.S. rods) 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	326.72	326.72	
082060	Providing and fixing level adjusting hangers of 6mm dia. M.S. rods (upto 1200mm length) fixed to roof slabs by means of M.S. angle ceiling cleats 40mmx40mmx5mm size, 40mm long and expansion hold fasteners 12.5mm dia. 40mm long including applying priming coat of zinc chromate yellow primer for steel members complete	Each	126.45	126.45	
082070	Providing and fixing machine moulded anodised aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving screws, over expansion joints on vertical surfaces / ceilings with full threaded, cadmium plated steel screws 4mm dia. stem, 30mm long and aluminium washers 2mm thick, 15mm 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. (Anodising on the aluminium sheet and washers to be 15 micron thick)				
082071	Made out of 170mm wide anodised aluminium sheet 2.5mm thick	Kg	241.40	241.40	
082072	Made out of 210mm wide anodised aluminium sheet 2.5mm thick	Kg	240.68	240.68	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
082080	Aluminium Composite Cladding - Providing and fixing Aluminium Composite Panels having total thickness of 4mm (with 0.5mm thick aluminium foil skin on both sides) alongwith minimum 25 micron PVdF Coating on top coil and Polymer/Epoxy coating on Back coil (4-7 microns) fixed on aluminium substructure of 50mm x 25mm x 3mm or 38mm x 38mm x 4mm (IS Grade Aluminium Extrusion) with stainless steel fastening system of Hilti/Fischer Dash Fasteners on facade, horizontal / vertical surfaces of columns, suspended ceiling, sills, jambs, canopies etc. and making 25mm grooves and applying non staining and non streaking sealant 789 or 991 HP with Baker Rod complete as per approved shop drawings and as per specifications (straight and curved). Only exposed surfaces to be measured and paid.	Sqm	1993.13	1993.13	0.020
082081	Extra for using 5mm thick Aluminium Composite Panel (with 0.5mm thick aluminium foil skin on both sides) in lieu of 4mm Aluminium Composite Panel (only thickness of core to be 4mm in lieu of 3mm in Item 082080 above)	Sqm	0.00	0.00	
082082	Deduct if 3mm thick Aluminium Composite Panel (with 0.25mm thick aluminium foil skin on both sides) is used in lieu of 4mm Aluminium Composite Panel (thickness of core to be 2.5mm in lieu of 3mm in Item 082080 above)	Sqm	520.10	520.10	
083010	Repairing aluminium glazed door/window/partition leaf & frame by replacing damaged portion, i.e style, rails, horizontal and vertical members with necessary anodized aluminium hollow tubes, angles, taper cleats, screws etc. of any section to match with existing one including taking out the door leaf/ frame, if required with due care to prevent further damage and refixing the same in original position after repairing complete in all respect. Extra fittings, if required to be paid separately.	Kg	271.41	271.41	
083020	Providing and fixing aluminium round/square bars/ flats or grill in frame of windows and cleastory windows	Sqm	446.59	446.59	
083030	Providing and fixing acrylic sheet for glazing in aluminium door, window, ventilator shutter, partition, reservation counter etc. with Aluminium round / square bars / flats or grill in frame of windows and cleastory windows etc. with PVC/neoprene gasket etc. complete (cost of aluminium frame/grill shall be paid separately in relevant item)				
083031	3 mm thick	Sqm	1232.70	1232.70	
083032	5 mm thick	Sqm	1552.11	1552.11	
083040	Extra for using coloured acrylic sheet instead of transparent / translucent sheet	Sqm	123.27	123.27	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
083050	Fabricating, supplying & installing stainless steel railings for staircases, balconies, FOBs, Enquiry/ Reservation complex etc., made of SS 304 Grade stainless steel, laser cut / water jet cut (no shearing), polished with Automatic round/flat polishing machine to get a uniform hairline finish. All parts shall be connected to each other with the help of prescribed size CNC made solid connectors, countersunk screws. Welding should be finished ensuring that no welding marks are visible and assembly is mounted on floor with the help of dash fasteners. Railings shall be fabricated as per approved drawings by engineer-in-charge. Manufacturer shall submit maintenance manual and basic material test report for grade certification.	Kg	88.12	88.12	
083060	Extra over Item 083050 for using SS 316 Grade stainless steel (to be used in corrosive coastal areas) instead of SS 304 Grade	Kg	8.91	8.91	
	New Items To Be Added By Zonal Railways				
084010					
084020					
084030					
084040					
084050					
084060					
084070					
084080					
084090					
084100					

CHAPTER - 9 : FLOORING, PAVING AND DADO					
Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	BRICK FLOORING				
091010	Brick on edge flooring with bricks of class designation 7.5 including cement slurry etc. complete in cement mortar				
091011	1:4 (1 cement : 4 coarse sand) (With FPS Bricks)	Sqm	611.77	488.97	0.185
091012	1:6 (1 cement : 6 coarse sand) (With FPS Bricks)	Sqm	611.77	488.97	0.129
091020	Flat Brick flooring with bricks of class designation 7.5 including cement slurry etc. complete in cement mortar				
091021	1:4 (1 cement : 4 coarse sand) (With FPS Bricks)	Sqm	439.29	339.99	0.105
091022	1:6 (1 cement : 6 coarse sand) (With FPS Bricks)	Sqm	439.29	339.99	0.075
091030	Providing hand packed dry flat brick flooring, class designation 7.5 (FPS Bricks), excluding pointing with joints filled with sand over a bed of dry sand (ordinary) of average thickness 25 mm including ramming sub grade :				
091031	Brick on edge	Sqm	574.49	464.61	
091032	Flat brick	Sqm	408.55	317.89	
091040	Deduct where railway bricks old / new are supplied				
091041	From flat brick flooring	Sqm	268.31	250.42	
091042	From brick on edge flooring	Sqm	400.72	374.00	
091050	Extra for brick flooring (with F.P.S bricks) laid in diagonal / herring bone bond or other pattern as specified	Sqm	13.76	13.76	
091060	Dry stone ballast 50mm nominal size, rammed in floors 75mm thick layer	Sqm	103.61	100.19	
091070	Moorum flooring 10cm thick (consolidated depth) including watering and ramming, with contractor's moorum	Sqm	104.42	95.48	
091080	Laying cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate-12.5mm nominal size) of thickness 25mm to 40mm as under layer of flooring	cum	3436.51	2097.82	3.200
091090	Laying cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate-20mm nominal size) of thickness 40mm to 100mm as under layer of flooring	cum	3500.36	2161.68	3.200
	CEMENT CONCRETE FLOORING				
092010	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				
092011	25mm thick with 12.5mm nominal size stone aggregate	Sqm	123.51	94.75	0.123
092012	40mm thick with 20mm nominal size stone aggregate	Sqm	172.97	119.84	0.170
092013	50mm thick with 20mm nominal size stone aggregate	Sqm	204.67	138.24	0.202

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
092014	75mm thick with 20mm nominal size stone aggregate	Sqm	282.57	183.17	0.281
092015	Extra for nosing of steps	Sqm	27.82	27.55	
092020	Cement plaster skirting (upto 30cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement				
092021	15mm thick	Sqm	172.04	126.43	0.110
092022	18mm thick	Sqm	181.87	129.59	0.140
092030	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate-20mm nominal size) complete	cum	3473.01	2134.33	3.200
092040	Extra over for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	Sqm	18.88	18.88	
092050	Laying 15 mm thick hardened topping on concrete surface with 1 part metallic floor hardener, 4 parts cement and 9 parts by weight hard stone chips of size 6mm mixed and laid as per specifications	Sqm	123.71	123.71	0.076
092060	Providing and laying plain cement concrete flooring of specified thickness with mix design concrete over firm, well prepared and well compacted bed including provision of designed expansion joint & finishing manually or mechanical trowel ling & vacuum dewatering complete. Expansion joint to be paid for separately.				
092061	M-20	cum	3548.85	2483.02	3.440
092062	M-25	cum	3548.85	2483.02	3.990
092063	M-30	cum	3548.85	2483.02	4.070
	TERRAZO FLOORING :				
093010	Providing top layer of floor, 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 1mm to 4mm 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				
093011	With ordinary cement without any pigment	Sqm	257.90	294.74	0.041
093012	With ordinary cement with pigment	Sqm	282.64	319.48	0.041
093013	With white cement with pigment	Sqm	355.57	392.41	
093020	Providing top layer of floor, 9mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes - 4mm to 7mm 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				
093021	With ordinary cement without any pigment	Sqm	306.26	343.15	0.058
093022	With ordinary cement with pigment	Sqm	341.54	378.43	0.058
093023	With white cement with pigment	Sqm	445.61	482.50	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
093030	Marble chips skirting (upto 30cm height) rubbed & polished to granolithic finish, top layer 6mm thick of marble chips - white / black / chocolate / grey / yellow / green of sizes - smallest to 4mm laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in ratio of 4:7 (4 cement marble powder mix : 7 marble chips) by volume :				
093031	18mm thick with under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with ordinary cement	Sqm	527.11	488.41	0.129
093032	18mm thick with under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with ordinary cement and pigment	Sqm	551.85	513.15	0.129
093033	18mm thick with under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with white cement and pigment	Sqm	624.78	586.08	0.089
093034	21mm thick with under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with ordinary cement	Sqm	561.75	523.05	0.147
093035	21mm thick with under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with ordinary cement and pigment	Sqm	598.86	560.16	0.147
093036	21mm thick with under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with white cement and pigment	Sqm	708.26	669.55	0.089
093040	Extra for laying terrazzo in narrow bands not exceeding 7.5cm in width	metre	1.48	1.48	
093050	Extra for terrazzo flooring laid as floor borders, margins and similar bands exceeding 7.5cm, but not exceeding 30cm in width	Sqm	14.12	14.12	
093060	Extra for laying terrazzo flooring on staircases treads not exceeding 30cm in width including cost of forming, nosing etc.	Sqm	21.19	21.19	
093070	Extra for making moulded nosing in terrazzo including returned moulded ends and angles to mouldings	metre	64.50	64.50	
093080	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 1mm to 4mm nominal size by volume) including rubbing, polishing and cement slurry etc. complete - 18mm thick crazy marble stone white, black or as specified	Sqm	969.95	1062.87	
	TERRAZO TILES :				

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
094010	Providing and laying precast factory made terrazzo tiles 22mm thick with graded marble chips of size upto 12mm 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 with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand)				
094011	With ordinary cement without any pigment	Sqm	849.06	836.40	0.094
094012	With ordinary cement with pigment	Sqm	900.63	887.97	0.094
094013	With white cement with pigment	Sqm	842.32	829.66	
094020	Extra, if terrazzo tiles are laid in treads of steps not exceeding 30cm in width	Sqm	30.13	30.13	
094030	Precast factory made terrazzo tiles 22mm thick with graded marble chips of size upto 12mm in walls, skirting and risers of steps on 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of the tiles including cutting/wastage of tiles, rubbing and polishing complete with tiles made :				
094031	With ordinary cement without any pigment	Sqm	789.22	757.19	0.139
094032	With ordinary cement with pigment	Sqm	840.79	808.76	0.139
094033	With white cement with pigment	Sqm	822.09	790.05	
094040	Precast Chequered factory made terrazzo tiles 22mm thick with graded marble chips size upto 6mm in floors jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing of cement slurry complete on 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand)				
094041	With ordinary cement without any pigment	Sqm	849.13	836.47	0.094
094042	With ordinary cement with pigment	Sqm	900.70	888.04	0.094
094043	With white cement with pigment	Sqm	842.32	829.66	
094050	Precast Chequered factory made terrazzo tiles 30mm thick with graded marble chips of sizes upto 12mm in stairs treads jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing, rounding of nosing etc. complete on 20mm thick bed of cement mortar 1:4 (1 cement : coarse sand) -				
094051	With ordinary cement without any pigment	Sqm	850.57	837.91	0.094
094052	With ordinary cement with pigment	Sqm	970.91	958.24	0.094
094053	With white cement with pigment	Sqm	946.83	934.17	
094060	Providing & fixing Precast Chequered tiles conforming to IS:13801:1993, manufactured under mechanical vibration & hydraulic pressing machine in double layer; top layer of 10 to 12 mm thickness of Dolomite Powder, graded chips, fibre and UV stabilised iron oxide Lanexess colour and bottom layer of 1:3 CC mixed with galvanised steel fibre of approved quality, ... contd. --				

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	.. Contd. --- jointed with neat cement slurry mixed with pigment to match shade of tiles including rubbing and cleaning etc. complete on 20mm thick bed of cement mortar 1:4 of sizes :				
094061	250mm x 250mm x 25mm thick	Sqm	538.31	489.37	0.094
094062	300mm x 300mm x 30mm thick	Sqm	627.75	578.81	0.094
094063	400mm x 400mm x 35mm thick	Sqm	723.57	674.63	0.094
094070	Providing and fixing 10mm thick heavy duty acid and/or alkali resistant factory made tiles conforming to Group V-RD series 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 including cost of acid/alkali resistant cement				
094071	In flooring on a bed of 10mm thick mortar 1:4 (1 appropriate cement : 4 coarse sand)	Sqm	848.93	822.24	0.047
094072	In dado/skirting on 12mm thick mortar 1:4 (1 appropriate cement : 4 coarse sand)	Sqm	923.61	892.46	0.050
094080	Tile work in skirting, risers of steps and dado (upto 2m height) over 12mm 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 with - Marble tiles (polished) Raj Nagar 8mm thick	Sqm	870.15	839.01	0.104
	CERAMIC TILES :				
095010	Providing and fixing Ist quality ceramic tiles conforming to Group B-III (Ceramic Wall Tiles) of IS:15622 of manufacturers approved by railway in all colours, shades, and design as approved by the Engineer-in-Charge in skirting, risers of steps and dado over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mixed with pigment of matching shade complete				
095011	200x200 mm	Sqm	471.88	440.73	0.124
095012	200x300 mm	Sqm	471.84	440.70	0.124
095013	300x450 mm and above	Sqm	572.80	541.65	0.124
095020	Providing and fixing ceramic tiles conforming to IS:15622 of manufacturers approved by railway in all colours, shades, design and abrasion resistance class as approved by the Engineer-in-Charge in floors and landings over 20mm thick bed of cement mortar 1:4 (1 cement : 3 coarse sand) including pointing in white cement mixed with pigment of matching shade complete				
095021	Of Group B-II Clause 5.1 (for abrasion resistance) of IS:15622 (Ceramic Floor Tiles) of size 300mmx300mm	Sqm	512.51	459.12	0.124
095022	Of Group B-II Clause 5.1 (for abrasion resistance) of IS:15622 (Ceramic Floor Tiles) of size 400mmx400mm and above	Sqm	570.18	516.79	0.124
095023	Of Group B-I-b of IS:15622 (Ceramic Tiles) of size 200mmx200mm to 400x400mm	Sqm	541.34	487.95	0.124

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
095024	Of Group B-I-b of IS:15622 (Ceramic Tiles) of size above 400mmx400mm	Sqm	699.92	646.53	0.124
095025	Of Group B-I-a of IS:15622 (Vitrified tiles) of size upto 400mmx400mm	Sqm	570.18	516.79	0.124
095026	Of Group B-I-a of IS:15622 (Vitrified tiles) of size above 400mmx400mm upto 600mmx600mm	Sqm	772.01	718.62	0.124
095027	Of Group B-I-a of IS:15622 (Vitrified tiles) of size 800mmx800mm and above	Sqm	1289.99	1236.60	0.124
095030	Extra over Items 095025 and 095026, if adhesive (recommended by manufacturer of tiles) of specified thickness is used instead of cement mortar	Sqm	40.15	40.15	
095040	Extra over basic items for using rectified tiles when specifically ordered	Sqm	153.78	153.78	
095050	Providing and fixing in floors 'rounded cove nosing' External & Interior Media ceramic tile of size 10cm x 30cm having thickness not less than 8mm of colour and shade, as approved by Engineer-in-charge over 12mm thick cement mortar 1:3; complete work including filling of joints with white or pigmented cement	Each	38.13	37.24	
	MARBLE & KOTA STONE FLOORING				
096010	Marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by the Engineer-in-Charge) over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey/white cement slurry, including pigment if required, including rubbing and polishing complete with :				
096011	Makrana White quality marble	Sqm	1990.66	2033.75	0.087
096012	Rajnagar plain/Black Zebra/Udaipur green marble / Pink plain marble	Sqm	1559.33	1602.42	0.087
096013	Agaria White	Sqm	1415.56	1458.64	0.087
096020	Extra for nosing in marble stone for treads, sills etc.	Sqm	175.42	175.42	
096030	Extra for making grooves up to 5mm deep in marble stone for tread, sills etc. of width				
096031	3mm to below 6mm	Sqm	97.01	97.01	
096032	6mm & above	Sqm	116.18	116.18	
096040	Extra for marble stone flooring in treads of steps, not exceeding 30cm in width	Sqm	205.90	205.90	
096050	Rubbing/polishing of old floors, Terrazzo or Mosaic/Marble skirting and dado including treads and risers of steps of terrazzo/terrazzo tiles plain or chequered, kota stone, marble tiles etc. with fine grade carborandum stone with machine or manually complete	Sqm	52.09	52.09	
096060	Kota stone slab flooring of size up to 30cmx30cm over 20mm (average) thick base of 1:4 cement mortar (1 cement : 4 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete				
096061	20 mm thick	Sqm	1123.44	1166.53	0.149

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
096062	25mm thick	Sqm	1123.44	1166.53	0.149
096063	30mm thick	Sqm	1157.64	1200.72	0.150
096064	40mm thick	Sqm	1320.81	1394.09	0.150
096070	Kota stone slab flooring of size up to 60cmx60cm over 20mm (average) thick base of 1:4 cement mortar (1 cement : 4 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete				
096071	20mm thick	Sqm	1123.44	1166.53	0.149
096072	25mm thick	Sqm	1123.44	1166.53	0.149
096073	30mm thick	Sqm	1125.62	1168.71	0.150
096074	40mm thick	Sqm	1320.81	1394.09	0.150
096080	Kota stone slabs 25mm thick in risers of steps, skirting, dado and pillars laid on 12mm (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 slab, including rubbing and polishing complete :	Sqm	1012.30	980.27	0.137
096090	Extra for nosing in steps and treads of kota stone slab	Sqm	166.36	166.36	
096100	Extra for making grooves upto 5mm deep in Kota stone for tread, sills etc. of width :				
096101	3mm to below 6mm	Sqm	92.50	92.50	
096102	6mm & above	Sqm	111.67	111.67	
096110	Extra for kota stone flooring in steps and treads not exceeding 30cm in width	Sqm	197.06	197.06	
096120	Providing flag stone (Neemuch, Shahabad, Kota etc.) flooring unpolished over 20mm (average) thick 1:4 cement mortar (1 cement : 4 coarse sand) base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab complete including cement sand pointing 1:2 with pigment and cleaning etc. complete				
096121	25mm thick stones	Sqm	669.07	619.24	0.149
096122	40mm thick stones	Sqm	693.71	643.88	0.152
	SAND STONE FLOORING :				
097010	40mm thick rough chisel dressed stone flooring over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) with joints finished flush with 1:2 cement sand mortar				
097011	Red sand stone	Sqm	375.70	320.09	0.095
097012	White sand stone	Sqm	411.73	356.12	0.095
097020	40mm thick fine dressed stone flooring over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 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				
097021	Red sand stone	Sqm	489.32	432.95	0.100
097022	White sand stone	Sqm	525.35	468.98	0.100

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
097030	40mm thick fine dressed and rubbed stone flooring over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) with joints 5mm thick, including pointing with cement mortar 1:2 (1 cement : 2 stone dust) with an admixture of pigment to match the shade of stone				
097031	Red sand stone	Sqm	572.65	534.78	0.100
097032	White sand stone	Sqm	608.68	570.81	0.100
097040	Extra over Items for nosing in steps and treads of sand stone	metre	45.12	45.12	
097050	Extra over sandstone flooring in steps and treads not exceeding 30cm in width	Sqm	7.21	7.21	
	MISCELLANEOUS FLOORING				
098010	Providing and laying stone setts flooring with stone (of igneous origin) setts 15cm thick laid flat over 15cm thick bed of sand (ordinary)				
098011	With joints thoroughly filled with ordinary sand	Sqm	935.20	390.63	
098012	With joints filled thoroughly with 1:6 mix (by weight) of bitumen and ordinary sand	Sqm	1376.23	840.39	
098020	Supplying and laying interlocking pre-cast CC block pavers of approved design factory manufactured of specified grade cement concrete on passenger platform, foot paths, circulating area etc. including setting in position over 25mm thick bedding layer of fine sand, filling the joints with fine sand, leveling including compaction as per IS:15658				
098021	60 mm thick blocks of M-30 grade for light traffic	Sqm	487.09	445.46	
098022	80mm thick blocks of M-35 grade for medium traffic	Sqm	443.49	401.86	
098023	120mm thick blocks of M-40 grade for heavy traffic	Sqm	549.49	507.87	
098024	High quality blocks for pedestrian pathways 35mm thick of M-40 grade	Sqm	374.46	332.83	
098030	Extra over items for using plastic moulds if specifically ordered	Sqm	55.00	55.00	
098040	Extra over items for lacquer finish	Sqm	78.23	78.23	
098050	Extra over Item 098010 for addition of pigment in concrete of paver blocks	Sqm	60.19	60.19	
098060	Providing and fixing homogeneous polyvinyl chloride sheet/tile in flooring and skirting in approved pattern on a smooth and damp proof base using rubber based adhesives of approved quality and manufacturer like Dunlop S-758, Fevicol SR 998 or equivalent including rolling with light wooden roller weighing about 5kg, all complete as directed by the Engineer-in-Charge, in approved colour and shade				
098061	1.5mm thick Sheet	Sqm	332.99	332.99	
098062	1.5mm thick Tile	Sqm	473.60	473.60	
098063	2.0mm thick sheet	Sqm	464.26	464.26	
098064	2.0mm thick tile	Sqm	595.55	595.55	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
098070	Providing and fixing rubber floor tiles with approved rubber adhesive as per manufacturers specification on the existing floor complete in all respect in all colour and shades :				
098071	Plain rubber tiles conforming to IS:809 1.5mm thick	Sqm	670.32	670.32	
098072	Plain rubber tiles conforming to IS:809 2.0mm thick	Sqm	687.02	687.02	
098073	LP stud range conforming to IS:809 size 610x610mm, 2.0mm thick	Sqm	687.02	687.02	
098074	LP stud range conforming to IS:809 size 610x610mm, 3.0mm thick	Sqm	930.94	930.94	
098075	LP stud range conforming to IS:809 size 610x610mm, 4.0mm thick	Sqm	930.94	930.94	
098076	Anti-static rubber tiles plain / stud (conforming to BS:2050 size 610x610mm, 2.0mm thick (Black only)	Sqm	991.92	991.92	
098080	Providing and laying vitrified ceramic paver tiles conforming to Group B-II, Clause 5.1 (for abrasion resistance) of IS:15622 of manufacturers approved by railway in all colours, shades and design as approved by the Engineer-in-Charge in floors and landings over 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand) including pointing with polymer based grout of matching shade complete of size :				
098081	100mmx100mmx15mm	Sqm	743.17	689.78	0.094
098082	200mmx200mmx15mm	Sqm	815.26	761.87	0.094
098083	300mmx300mmx15mm	Sqm	887.34	833.95	0.094
098084	Deduct for using 12mm thick tile instead of 15mm thick	Sqm	42.19	42.19	
098090	Laying 80mm thick oversized stone ballast 75mm to 100mm gauge in soling of floors, hand packed including hand packing, filling voids with sand and watering, ramming and leveling	Sqm	91.19	101.99	
098100	Providing and fixing aluminium strips 40mm deep and 2mm thick in joint of terrazzo floor	metre	59.63	59.63	
098110	Providing and fixing glass strips in joints of terrazzo / cement concrete floors				
098111	40mm deep and 4mm thick	metre	23.02	23.02	
098112	40mm deep and 6mm thick	metre	28.26	28.26	
	MARBLE WORK				
099010	Marble work (table rubbed and polished) for wall lining (veneer work), dado, skirting etc over 12mm thick 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) White Marble – Raj Nagar Plain, 18mm thick				
099011	Area of slab 0.10 sqm to 0.2 sqm	Sqm	2422.11	2221.89	0.067
099012	Area of slab over 0.2 sqm but upto 0.5 sqm	Sqm	2439.96	2226.39	0.067
099013	Area of slab over 0.5 sqm	Sqm	2460.97	2234.06	0.067

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
099020	Providing and fixing 18mm thick mirror polished, machine cut for kitchen platforms, vanity counters, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels. Abu plain white marble/Rajnagar plain white marble/ Udaipur Green Marble/ Zebra Black Marble				
099021	Area of each slab upto 0.10 sqm	Sqm	1627.54	1583.05	0.087
099022	Area of each slab over 0.10 sqm but upto 0.20 sqm	Sqm	1643.93	1588.31	0.087
099023	Area of slab each over 0.20 sqm but upto 0.50 sqm Abu plain white marble	Sqm	1632.73	1570.44	0.087
099024	Area of each slab over 0.50 sqm but upto 1.0 sqm	Sqm	1585.35	1554.20	0.087
099025	Area of each slab over 1.0 sqm	Sqm	1583.71	1553.68	0.087
099030	Providing and fixing 18mm thick mirror polished, machine cut for kitchen platforms, vanity counters facias, dados and skirtings and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups, including rubbing, curing etc. complete at all levels				
099031	Granite Black-Area of slab upto 0.10 sqm	Sqm	2415.03	2303.80	0.087
099032	Granite Black-Area of slab 0.10 sqm to 0.2 sqm	Sqm	2300.35	2266.98	0.087
099033	Granite Black-Area of slab over 0.2 sqm but upto 0.5 sqm	Sqm	2308.82	2255.43	0.087
099034	Granite Black-Area of slab over 0.5 sqm but upto 1.0 sqm	Sqm	2307.31	2253.92	0.087
099035	Granite Black-Area of slab over 1.0 sqm but upto 2.0 sqm or larger	Sqm	2272.91	2242.87	0.087
099040	Providing and fixing 18mm thick mirror polished, machine cut for kitchen platforms, vanity counters facias, dados and skirtings and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups, including rubbing, curing. etc .complete at all levels				
099041	Granite Pink/Grey-Area of slab upto 0.10 sqm	Sqm	2415.03	2303.80	0.057
099042	Granite Pink/Grey-Area of slab 0.10 sqm to 0.2 sqm	Sqm	2300.35	2266.98	0.057
099043	Granite Pink-Area of slab over 0.2 sqm but upto 0.5 sqm	Sqm	2308.82	2255.43	0.057
099044	Granite Pink-Area of slab over 0.5 sqm but upto 1.0 sqm	Sqm	2307.31	2253.92	0.057
099045	Granite Pink-Area of slab over 1.0 sqm but upto 2.0 sqm or larger	Sqm	2272.91	2242.87	0.057

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
099050	Providing and fixing 40mm thick Cuddappah stone polished, machine cut for kitchen platforms, vanity counters facias, dados and skirting and similar locations of required size, laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups including rubbing, curing etc. complete at all levels				
099051	Area of slab upto 0.5 sqm	Sqm	1225.81	1172.42	0.087
099052	Area of slab over 0.5 sqm but upto 1.0 sqm	Sqm	1224.30	1170.91	0.087
099053	Area of slab over 1 sqm but upto 2 sqm or larger	Sqm	1189.90	1159.87	0.087
099060	Extra for providing edge moulding to 16mm to 20mm thick marble/granite stone counters, vanities etc including machine polishing to edge to give high gloss finish etc. complete as per design approved by the Engineer-in-Charge				
099061	Marble work	metre	157.62	148.90	
099062	Granite work	metre	208.61	194.09	
099063	Cuddapah stone	metre	183.17	171.55	
099070	Extra for cutting groove upto 5mm wide and 6mm deep for drip course				
099071	In Marble work	Sqm	97.01	97.01	
099072	In Granite work	Sqm	169.70	169.70	
099073	In Cuddapah stone	Sqm	147.05	147.05	
099080	Polished stone tile work for wall lining (dado) over 12mm thick bed of cement mortar 1:3 including pointing in white cement with an admixture of pigment to match the stone shade with tiles of all size upto 300mm x 300mm				
099081	8 mm thick pink/grey granite tiles	Sqm	1071.64	1050.28	0.067
099082	8mm thick superior quality black granite tiles	Sqm	1329.53	1308.17	0.067
099083	8mm thick superior quality (Ruby Red) granite tiles	Sqm	1363.52	1342.15	0.067
099084	8mm thick marble tiles	Sqm	1101.73	1080.36	0.067
099090	Extra for fixing marble/granite stone over facia and drops of width upto 150mm with epoxy resin based adhesive (Araldite or equivalent) including cleaning etc. complete	metre	146.35	138.94	
099100	Extra for providing opening of required size and shape for wash basins/ kitchen sink / pillar tap etc in kitchen platform, vanity counters and similar location in marble / stone work including rubbing and polishing of cut edges etc complete. No deduction for opening area shall be made from parent item :				
099101	Opening of area upto 100 sq cm	Each Opening	123.00	123.00	
099102	Opening of area above 100 sq cm	Each Opening	394.97	394.97	
099110	Providing and fixing cramps of required size and shape in RCC / CC backing with cement mortar 1:2 (1 cement : 2 fine sand) including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately)				

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
099111	Gunmetal cramps	Kg	482.26	463.80	0.007
099112	Stainless steel cramps	Kg	556.53	536.16	0.007
099120	Providing and fixing expansion hold fasteners on CC / R.C.C. surface backing including drilling necessary holes and the cost of bolts etc. complete				
099121	Wedge expansion type fastener with threaded dia 1/4 Inch or 6mm	Each	27.91	27.91	
099122	Wedge expansion type fastener with threaded dia 3/8 inch or 10mm	Each	30.98	30.98	
099123	Wedge expansion type fastener with threaded dia 1/2 Inch or 12mm	Each	36.66	36.66	
099130	Providing and fixing copper pins 7.5cm long of 6mm diameter in cement mortar 1:2 (1 cement : 2 fine sand) including making necessary chases	Each	10.22	8.24	0.007
099140	Providing and fixing stone dowel 10x5x2.5cm cut to double wedge shape as per design in cement mortar 1:2 (1 cement : 2 fine sand) including making necessary chases	Each	19.70	17.72	0.007
099150	Extra for provision of motif tiles on walls over Item 095010	Sqm	235.94	220.37	
099160	Providing and fixing 18mm thick mirror polished, machine cut for floors and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups, including rubbing, curing etc. complete at all levels				
099161	Granite Black-Area of slab upto 0.10 sqm	Sqm	2221.35	2110.12	0.087
099162	Granite Black-Area of slab 0.10 sqm to 0.2 sqm	Sqm	2106.76	2073.39	0.087
099163	Granite Black-Area of slab over 0.2 sqm but upto 0.5 sqm	Sqm	2120.77	2067.37	0.087
099164	Granite Black-Area of slab over 0.5 sqm but upto 1.0 sqm	sqm	2115.98	2062.58	0.087
099165	Granite Black-Area of slab over 1.0 sqm but upto 2.0 sqm or larger	Sqm	2086.07	2056.04	0.087
099170	Providing and fixing 18mm thick mirror polished, machine cut for floors and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups, including rubbing, curing etc. complete at all levels				
099171	Granite Pink/Grey-Area of slab upto 0.10 sqm	Sqm	2221.35	2110.12	0.087
099172	Granite Pink/Grey-Area of slab 0.10 sqm to 0.2 sqm	Sqm	2106.76	2073.39	0.087
099173	Granite Pink-Area of slab over 0.2 sqm but upto 0.5 sqm	Sqm	2120.77	2067.37	0.087
099174	Granite Pink-Area of slab over 0.5 sqm but upto 1.0 sqm	Sqm	2115.98	2062.58	0.087
099175	Granite Pink-Area of slab over 1.0 sqm but upto 2.0 sqm or larger	Sqm	2086.07	2056.04	0.087

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
099180	Providing and fixing 25mm thick flame cut/machine cut for floors /stairs and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups, including rubbing, curing etc. complete at all levels				
099181	Granite Pink/Grey - Area of slab upto 0.10 sqm	Sqm	2976.17	2864.94	0.087
099182	Granite Pink/Grey - Area of slab 0.10 sqm to 0.2 sqm	Sqm	2861.58	2828.21	0.087
099183	Granite Pink - Area of slab over 0.2 sqm but upto 0.5 sqm	Sqm	2875.59	2822.19	0.087
099184	Granite Pink - Area of slab over 0.5 sqm but upto 1.0 sqm	Sqm	2870.80	2817.40	0.087
099185	Granite Pink - Area of slab over 1.0 sqm but upto 2.0 sqm or larger	Sqm	2840.89	2810.86	0.087
099186	Extra for providing 40mm thick flame cut granite in lieu of 25 mm from Items 099181 to 099185	Sqm	20% of respective items	20% of respective items	
099190	Providing and fixing 40mm thick Cuddapah stone polished, machine cut for floors and similar locations of required size, laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touchups including rubbing, curing etc. complete at all levels				
099191	Area of slab upto 0.5 sqm	Sqm	1034.11	980.72	0.087
099192	Area of slab over 0.5 sqm but upto 1.0 sqm	Sqm	1032.97	979.58	0.087
099193	Area of slab over 1.0 sqm but upto 2.0 sqm or larger	Sqm	1003.07	973.03	0.087
099200	Supplying and applying surface hardener for concrete floors ready to use, specially graded, non metallic and mineral aggregate dry shake surface hardener free from oil and grease to be sprinkled at 9 kg/sqm of surface area, complete with finishing	sqm	193.62	193.62	
099210	Providing and fixing 10mm ($\pm$ 0.2mm) thick heavy duty, full-body homogeneous, anti-algal, all weather resistant, exterior use Paving vitrified tiles of size upto 400mmx400mm in approved shade, colour & quality, having anti-skid matt finish surface with plain or projected texture. Tiles to be laid on 20mm average thick cement mortar bed of 1:4 (1 cement : 4 coarse sand) with all labour, material complete job	Sqm	913.99	864.16	0.087
099220	Providing and fixing 50 mm thick (size 300mmx300mm) M-30 grade precast concrete studded tiles in approved colour manufactured by Vibro Compaction process using jointless FRP moulds to achieve smooth joint finish. Tiles to be laid on 20 mm average thick cement mortar base of 1:4 (1 cement : 4 coarse sand) with all labour, material and transportation etc. as a complete job	Sqm	2517.54	2467.71	0.087

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
099230	Providing and fixing Group-25 Rectified Tiles of 10mm $\pm$ 0.5mm thickness of sizes upto 605mm x 605mm on floors having skid free, smooth surface of any colour, shade and design as approved by Engineer Incharge having abrasion resistance of 25000 revolutions as per the PEI methodology; laid over 20mm thick cement mortar of 1:4 (1 cement : 4 coarse sand) and joints filled with matching grouting material; complete work	Sqm	610.84	610.84	0.087
099240	Providing & fixing Paving Slabs (Flag Stone) 400mm x 400mm x 80mm thick, manufactured with wet press vacuum dewatered technology with pimple finish on top, having 5mm chamfer edges in approved colour and crushing strength of 50 N/sq.mm to be fixed on uniform bedding of 50mm thick fine sand and joints duly filled with sand	Sqm	775.71	692.45	
099250	Providing & fixing 400mmx400mmx35mm thick reflective lacquer coated cement designer tiles, manufactured in wet cast vibration system in two layers, 10-12mm thick top layer consisting of graded stone aggregates, silica sand, Bayer colour. Surface of tiles with anti-skid texture with lacquer coating with flexural strength of 4 N/sq.mm, to be fixed on 20mm thick 1:4 cement mortar, as directed by engineer-in-charge.	Sqm	752.63	708.14	0.094
	New Items To Be Added By Zonal Railway				
099310					
099320					
099330					
099340					

CHAPTER - 10 : ROOFS AND CEILINGS					
Item. No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	C G S SHEET ROOFING				
101010	Providing corrugated G.S. sheet roofing, including vertical/curved surface, fixed with polymer coated 'J' or 'L' hooks, bolts and nuts 8mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (upto any pitch in horizontal/vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required				
101011	1.00mm thick with zinc coating not less than 275gm/sqm	Sqm	1690.53	1690.53	
101012	0.80mm thick with zinc coating not less than 275gm/sqm	Sqm	1410.51	1410.51	
101013	0.63mm thick with zinc coating not less than 275gm/sqm	Sqm	1172.47	1172.47	
101020	Extra for straight cutting in C.G.S. sheet roofing for making opening of area exceeding 0.4sqdm for chimney stacks, sky light etc.				
101021	1.00mm thick	metre	26.31	26.31	
101022	0.80mm thick	metre	21.05	21.05	
101023	0.63mm thick	metre	21.05	21.05	
101030	Extra for circular cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sqdm				
101031	1.00mm thick	metre	149.72	149.72	
101032	0.80mm thick	metre	119.59	119.59	
101033	0.63mm thick	metre	119.59	119.59	
101040	Providing ridges or hips of width 60cm overall width plain G.S. sheet fixed with polymer coated 'J' or 'L' hooks, bolts and nuts 8mm dia. G.I. limpet and bitumen washers complete				
101041	0.80mm thick with zinc coating not less than 275gm/sqm	metre	591.92	591.92	
101042	0.63mm thick with zinc coating not less than 275gm/sqm	metre	505.51	505.51	
101050	Providing valleys 90cm wide overall in plain G.S. sheet fixed with polymer coated 'J' or 'L' hooks, bolts and nuts 8mm dia. G.I. limpet and bitumen washers complete				
101051	1.60 mm thick with zinc coating not less than 350gm/sqm	metre	1205.31	1205.31	
101052	1.00 mm thick with zinc coating not less than 350gm/sqm	metre	796.14	796.14	
101060	Providing flashing of 40cm overall width in plain, G.S. sheet, 1.00mm thick with zinc coating not less than 275gm/sqm., 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)	metre	410.78	410.78	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
101070	Providing and fixing 15cm wide 45cm over all semi circular plain G.S. sheet gutter with iron brackets 40mmx3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete				
101071	0.80mm thick with zinc coating not less than 275gm/sqm	metre	531.68	531.68	
101072	0.63mm thick with zinc coating not less than 275gm/sqm	metre	459.73	459.73	
101080	Supply & installation of pre-coated galvanized iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50mm +/- 5% total coated thickness (TCT) thick Zinc coating 120gsm as per IS:277 in 240mpa 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 while transportation and should be supplied in single length upto 12m or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling / self tapping screws of size (5.5mm x 55mm) with EPDM seal or with polymer coated 'J' or 'L' hooks, bolts and nuts 8mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead complete upto any pitch in horizontal/vertical or curved surfaces excluding the cost of purlins, rafters and trusses, including cutting to size & shape, wherever required	Sqm	581.93	581.93	
101090	Providing and fixing pre-coated galvanised steel sheet roofing accessories 0.50mm +/- 5% total coated thickness (TCT) thick Zinc coating 120 gsm as per IS:277 in 240mpa 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 or with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers complete :				
101091	Ridges plain (500-600mm)	metre	363.35	363.35	
101092	Flashings/Aprons (upto 600mm)	metre	349.70	349.70	
101093	North light curves	metre	409.37	409.37	
101094	Barge board (upto 300mm)	metre	345.47	345.47	
101095	Crimp curve	metre	368.12	368.12	
101096	Gutter (600mm over all girth)	metre	533.94	533.94	
	A.C. SHEET ROOFING & A.C. Accessories				
102010	Providing and fixing asbestos cement 6 mm thick corrugated / semi corrugated sheet roofing upto any pitch and fixing with polymer coated 'J' or 'L' hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers complete excluding the cost of purlins, rafters and trusses :	Sqm	267.02	267.02	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
102020	Extra for straight cutting in A.C. corrugated, semi-corrugated 6mm thick sheet roofing for making openings of area exceeding 40 sq. decimeter for chimney stacks, sky lights etc.	metre of periphery	21.05	21.05	
102030	Extra for circular cutting in A.C. corrugated / semi-corrugated 6mm thick sheet roofing for making openings of area exceeding 40 sq. decimeter	metre of periphery	58.14	58.14	
102040	Providing and fixing ridges and hips in asbestos cement sheet roofing				
102041	One piece plain angular ridges	metre	223.57	223.57	
102042	Serrated or plain wing adjustable ridges	metre	253.26	253.26	
102043	Close fitting adjustable ridges	metre	341.23	341.23	
102044	North light adjustable ridges	metre	246.82	246.82	
102045	Unserrated adjustable hips	metre	246.79	246.79	
102050	Providing and fixing asbestos cement roofing accessories with polymer coated 'J' or 'L' hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers complete	metre			
102051	Apron flashing pieces	metre	231.11	231.11	
102052	Eave's filler pieces	metre	237.91	237.91	
102053	North light and ventilator curves	metre	414.08	414.08	
102054	Barge boards	metre	235.53	235.53	
102055	Ridge finials	Pair	163.45	163.45	
102056	Curved barge boards for north light curves	Each	301.33	301.33	
102057	Expansion joints for ridges	Each	397.95	397.95	
102058	Expansion joints for north light curves	Each	354.16	354.16	
102059	S' type louvers	metre	243.68	243.68	
	Non-A.C. Sheet Roofing & Accessories				
103010	Providing and fixing non-asbestos high impact Polypropylene reinforced cement 6mm thick corrugated sheets (as per IS:14871) roofing up to any pitch and fixing with polymer coated 'J' or 'L' hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EDPM washers etc. complete excluding the cost of purlins, rafters and trusses including cutting to size & shape, wherever required	Sqm	284.04	284.04	
103020	Extra for straight cutting in non-asbestos Polypropylene reinforced cement corrugated / semi-corrugated 6mm thick sheet roofing for making openings of area exceeding 40sq. decimeter for chimney stacks, sky lights etc.	metre of periphery	21.05	21.05	
103030	Extra for circular cutting in non-asbestos polypropylene reinforced cement corrugated/ semi-corrugated 6mm thick sheet roofing for making openings of area exceeding 40 sq. decimeter	metre of periphery	58.14	58.14	
103040	Extra for providing and fixing wind ties of 40mmx6mm flat iron section complete with hooks, nuts, washers etc.	metre	84.29	84.29	
103050	Providing and fixing ridges and hips in non-asbestos fibre cement high impact Polypropylene reinforced roofing with suitable fixing accessories or self drilling fastener and EDPM washer etc. complete				

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
103051	Corrugated serrated adjustable ridges	metre	343.98	343.98	
103052	Plain wing adjustable ridges	metre	369.45	369.45	
103053	Close fitting adjustable ridges	metre	455.07	455.07	
103054	Unerrated adjustable hips	metre	382.18	382.18	
103060	Providing and fixing non-asbestos fibre cement high impact Polypropylene reinforced roofing accessories in all colours with polymer coated 'J' or 'L' hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers or with self drilling fastener and EDPM washer etc. complete				
103061	Corrugated Apron pieces	metre	235.28	235.28	
103062	Eave's filler pieces	metre	159.75	159.75	
103063	North light curves	metre	364.43	364.43	
103064	Ventilator Curves	metre	479.71	479.71	
103065	Barge boards	metre	248.38	248.38	
103066	Ridge finials	Pair	259.50	259.50	
103067	Special north light curves	metre	490.42	490.42	
103068	S' type louvers	metre	239.01	239.01	
103070	Providing and fixing flat iron brackets 50mmx3mm size with necessary bolts, nuts and washers etc. for fixing asbestos cement/G.S. sheet gutters with purlins to be fixed at suitable interval, as per direction of engineer-in-charge	metre	12.14	12.14	
103080	Supplying fitting/fixing corrugated fibre glass reinforced perspex sheet 3 mm. thick on existing wooden or iron frames / purlins with Contractor's stitching bolts, hook bolts, crank bolts, coach screws, nuts, limpets, G.I and bitumen washers etc. complete	Sqm	1560.69	1560.69	
103090	Providing & fixing machine made UV stabilised fiberglass reinforced plastic sheet roofing upto any pitch including fixing with polymer coated 'J' or 'L' hooks, bolts and 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 stabilizer 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 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.				
103091	2mm thick corrugated and profile sheets	Sqm	1958.26	1958.26	
103092	2mm thick flat sheets	Sqm	1710.56	1710.56	
103093	Providing & fixing fibre glass reinforced 90cm wide, 4mm thick valley gutter, having two coats of U/V stabilised gel coat as top coating giving glossy smooth surface; to be fixed with suitable clamp made of 25mm MS flat of 3mm thickness, provided at 1m interval, complete with required nuts/bolts	Rm	2840.05	2840.05	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
103100	Extra over item nos. 103010, 103050 & 103060 for using corrugated sheets and fittings having polyester coating of approved shade on the top surface instead of natural cement colour sheets and fittings	Each	25% of the respective items	25% of the respective items	
	FLAT ROOFS				
104010	10cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25mm thick mud mortar with bhusa at 35 kg per cum. of earth and gobri leaping with mix 1:1 (1 clay : 1 cow dung) and covered with 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 – upto floor two level				
104011	With F.P.S. flat brick tiles of class designation 10	Sqm	573.33	401.03	0.031
104012	With machine moulded F.P.S. brick tiles of class designation 12.5	Sqm	573.33	401.03	0.031
104020	Extra over Item 104012 above floor two level for every floor or part thereof	Sqm	114.67	80.21	
104030	Extra for every additional 1cm thickness of mud phaska	Sqm	6.46	6.03	
104040	Providing and laying FPS brick tiles of class designation 10 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 a 12mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat	Sqm	496.40	305.63	0.091
104050	Providing and laying pressed clay tiles (as per approved pattern 20mm nominal thickness and 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 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete	Sqm	395.07	296.14	0.198
104060	Lime concrete terracing on roofs average thickness 10cm laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete including rounding of junctions with parapet wall complete – upto floor two level	Sqm	465.54	340.95	
104070	Lime concrete terracing on roofs, average thickness 10cm laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete and covered with FPS flat 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 12mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat upto floor two level	Sqm	947.45	664.29	0.031

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
104080	Add or deduct over Items 104060 and 104070 for every additional/less 5mm thickness of lime concrete terracing	Sqm	23.27	18.89	
104090	Extra over Items 104060, 104070 and 104080 for using LUNA, RTC or equivalent treatment in place of Bel and Gur treatment. (Quantity to be used as per specifications of the manufacturer)	Sqm	28.82	28.82	
104100	Extra over Items 104060 and 104070 above floor two level for every floor or part thereof	Sqm	70.65	50.26	
104110	Picking upto a minimum depth of 50 mm including a) removing dismantled concrete and thorough cleaning and washing of exposed surface to make it free of dislodged particles and dust and b) redoing of lime concrete terracing with 20mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete trowelled smooth to a polished finish upto floor two level	cum	2682.02	2270.85	
104120	Extra over Item 104110 above floor two level for every floor or part thereof	cum	80.46	68.13	
104130	Providing gola 75x75mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate-10mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design in 75mmx75mm deep chase	metre	76.89	64.41	0.031
104140	Making khurras 45cmx45cm with average minimum thickness of 5cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over P.V.C. sheet 1mx1mx400micron, finished with 12mm 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	237.01	215.05	0.060
104150	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 etc (Karries and battens etc to be paid separately) including pointing the ceiling joints with cement mortar 1:3 (1 cement : 3 fine sand) complete				
104151	Red sand stone slab, 40mm to 50mm thick	Sqm	392.51	389.06	0.007
104152	White sand stone slab, 40mm to 50mm thick	Sqm	419.66	416.13	0.007
	WATER PROOFING				
105010	Providing & laying water-proof treatment on roof slabs by applying after preparation, cement slurry mixed with Tapecrete acrylic based polymer water proofing compound (having solid content 30% ± 2, pH >7) in a ratio of 2:1 (2 cement : 1 water proofing compound), followed by laying of fibre glass cloth; 2nd coat of cement slurry mixed with acrylic based polymer water proofing compound and a final coat of water proofing compound brush topping having water proofing compound, .. contd. --	Sqm	195.94	195.94	0.020

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	.. contd. -- cement and c/sand @ 1:2:2 by weight. Complete job to be carried out as per specifications				
105020	Providing & laying corner fillet (Gola) 25mmx25mm size at junction of walls & slab and pipe joints sealing by cement sand mortar 1:3 mixed with Tapecrete acrylic based polymer water proofing compound (having solid content 30% ± 2, pH >7) at 0.5% of cement by weight.	metre	23.58	22.51	0.015
105030	Painting top of roofs with residual type petroleum bitumen of penetration 80/100 of approved quality at 17kg/10sqm impregnated with a coat of coarse sand at 60 cudm/10sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete	Sqm	112.16	99.89	
105040	Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of 1st and 3rd courses of blown bitumen 85/25 or 90/15 conforming to IS:702 applied hot @ 1.45kg/sqm of area for each course, 2nd course of roofing felt type 3 Grade-I (Hessian base self finished bitumen felt) conforming to IS:1322 and 4th and final course of stone grit 6mm and down size or pea-sized gravel spread at 6 cudm/sqm including preparation of surface but excluding grading complete	Sqm	301.17	299.41	
105050	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/sqm of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS:1322 (Hessian based self finished bitumen felt) conforming to IS:1322 and sixth and final course of stone grit 6mm and down size or pea- sized gravel spread at 6 cudm/sqm including preparation of surface but excluding grading complete	Sqm	491.36	489.74	
105060	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or/and residual bitumen applied hot at 1.45, 1.20 and 1.70kg per sqm of area respectively, second and fourth courses of roofing felt type 2 Grade I (fibre base self finished bitumen felt) sixth and final course of stone grit 6mm and down size or pea-sized gravel spread at .. contd. --	Sqm	633.05	631.44	
	.. contd. -- 6 cudm/sqm including preparation of surface, excluding grading complete				

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
105070	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/sqm 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 6mm and down size or pea-sized gravel spread at 6cudm/sqm including preparation of surface but excluding grading, complete	Sqm	633.79	632.17	
105080	Supplying and applying bituminous solution primer on roof and or wall surface at 0.24 litre/sqm	Sqm	26.13	26.13	
105090	Deduct for omitting in water proofing treatment final course of spreading stone grit 6mm down size or pea-sized gravel at 6 cudm/sqm	Sqm	7.82	5.73	
105110	Providing and laying in situ over roofs seven course water proofing treatment with APP (Atactic Poly Propylene) modified Polymeric membrane 1.5mm thick of 2.25 kg/sqm weight. 7th, the top most layer shall be of specified surface finish which shall be paid for separately	Sqm	496.14	496.47	
105120	Providing and laying in situ over roofs five course water proofing treatment with APP (Atactic Poly Propylene) modified Polymeric membrane 2.0mm thick of 3.0 kg/sqm weight. 5th, the top most layer shall be of specified surface finish which shall be paid for separately	Sqm	387.84	388.17	
105130	Providing and laying in-situ over roofs seven course water proofing treatment with APP (Atactic Poly Propylene) modified Polymeric membrane 2.0mm thick of 3.0 kg/sqm weight. 7th, the top most layer shall be of specified surface finish which shall be paid for separately	Sqm	560.02	560.35	
105140	Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer water proofing membrane of specified thickness, black finished reinforced with glass fibre matt over a coat of bitumen primer for bitumen membrane @ 0.40litre/sqm by the same membrane manufacturer of density at 25°C, 0.87-0.89kg/ litre and viscosity 70-160cps				
105141	2mm thick (for corrugated roof sheets)	Sqm	257.01	257.01	
105142	3mm thick	Sqm	271.06	271.06	
105150	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated seven layer 3mm thick water proofing membrane, reinforced with non-woven polyester matt over a coat of bitumen primer for bitumen membrane @ 0.25 kg/sqm by the same membrane manufacture as per specification	Sqm	282.56	282.56	
	Note for Items 105020 to 105150 : The laying of membrane shall be got done through the authorized applicator of the manufacturer of membrane, if possible				

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
105160	Extra for covering top of membrane with Geotextile 120 gsm non-woven 100% polyester of thickness 1mm to 1.25mm thickness bonded to the membrane by heating by buytane torch	Sqm	138.18	138.18	
105170	Cutting to 'V' section, cleaning and washing cracks for repairs to roof. Grouting with cement slurry 1:1 and plastering over crack with cement mortar 1:3	metre	13.20	12.31	
105180	Cutting to 'V' section, cleaning and washing cracks for repairs to roof. Grouting with special compound such as valamoid or any other similar compound	metre	21.93	21.93	
105190	Grading roof for water proofing treatment with				
105191	Cement concrete 1:2:4 (1 cement, 2 coarse sand and 4 graded stone aggregate of 20mm nominal size)	cum	2974.58	1625.50	3.200
105192	Cement mortar 1:3 (1 cement, 3 coarse sand)	cum	4131.70	1907.08	5.100
	CEILING :				
106010	Providing and fixing insulating board ceiling of approved quality as per IS:3348 with necessary nails etc. complete (framework to be paid separately)				
106011	Natural colour insulating board, 12mm thick	Sqm	404.03	404.03	
106012	White/ivory face insulating board, 12mm thick	Sqm	384.89	384.89	
106013	Flame retardant face insulating board, 12mm thick	Sqm	475.47	475.47	
106020	Providing and fixing flat pressed 3 layer medium density particle board or graded particle board (Grade-1) IS:3087 marked 12mm thick in ceiling with necessary nails etc. complete (frame work to be paid separately)	Sqm	469.76	469.76	
106030	Extra for circular cutting and waste in ceiling with :				
106031	Insulating Board	Sqm	134.82	134.82	
106032	Particle Board	Sqm	143.00	143.00	
106040	Extra over Items 106011 to 106013 and 106020 for providing and fixing ceiling to curved surfaces in narrow widths	Sqm	100.70	100.70	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
106050	Providing and fixing false ceiling with 12mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed particle board conforming to IS:3087 finished with a coat of aluminium primer on both sides & edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to a grid made out of anodised aluminium (with 15 micron anodic coating) T-sections 35mm x 15mm x 1.5mm size main runners and cross runners 23.5mmx19mmx1.5mm fixed to main runners placed 600mm centre to centre both ways so as to form a grid of 600mm square. The frame work shall be suspended from ceiling by level adjusting hangers of 6mm dia M.S. rod fixed to roof slab by means of ceiling cleats. The suspenders shall be placed 600mm x 1200 mm centre to centre including fixing to the frame with C.P. brace screws and applying a priming coat of zinc chromate yellow primer (aluminium frame work and hangers shall be paid separately)	Sqm	162.56	245.60	
106060	Extra for providing 3mm thick translucent white acrylic plastic sheets of approved quality in false ceiling instead of 12mm thick plain or with design particle board ceiling tiles in Item 106050	Sqm	721.09	645.60	
106070	Providing and fixing 8mm thick non-asbestos multipurpose cement board, reinforced with cellulose fibre, manufactured through auto-claving process (high pressure steam-cured) as per IS:14862 with suitable fibre cement with screws (framework to be paid separately)	Sqm	424.58	424.58	
106080	Providing & fixing PVC multiple hollow section of approved colour with tongue and groove fixture having wall thickness 1mm and overall thickness 12mm in ceiling on existing frame work	Sqm	937.32	937.32	
106090	Providing and fixing Tiled False Ceiling Tiles of approved materials of size 595x595mm in true horizontal level suspended on interlocking metal grid of galvanized steel sections (galvanized @ 170gsm/sqm) consisting of main "T" runners suitably spaced at joints to get required length and of size 24mmx38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm centre to centre and cross "T" of size 24mmx25mm made of 0.3mm thick (min.) sheet, ... contd. -	Sqm	303.16	303.16	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	... contd. - 1200mm long spaced between main "T" at 600mm centre to centre to form a grid of 1200x600mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick minimum sheet to be interlocked at middle of the 1200mmx600mm panel to form grids of 600mmx600mm wall angle of size 21mmx21mmx3mm and laying false ceiling tiles of approved texture in the grid including, wherever required, cutting/making openings for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6mm dia and 50mm long dash fasteners, 4mm dia GI adjustable rods with galvanized level clips spaced at 1200mm centre to centre along main "T", bottom exposed width of 24mm of all T-sections shall be pre painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer-in-charge. (The rate is excluding the cost of tiles which will be paid separately)				
106100	Providing and fixing at all height false ceiling of 12.5mm thick tapered edge gypsum board conforming to IS:2095-Part I, including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised with zinc coating of grade 350 as per IS:277 and consisting of angle cleats of size 25mm x 1.6mm with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with stener 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25mmx25mmx0.55mm of - contd. ...	Sqm	725.79	725.79	
	... Contd. -- required length and other end of angle hanger being fixed with nut and bolts to G.I. channels 45mmx15mmx0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm dia x 230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition - contd. ...				

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	... contd. - with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers 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 drawing and specification and direction of the Engineer-in-Charge but excluding the cost of painting.				
106110	Providing 10mm thick Plaster of Paris (gypsum anhydrous) ceiling upto a height of 5m above floor level over 1st class kail or similar wood strips 25mmx6mm with 10mm gap in between and reinforced with rabbit wire mesh fixed to wooden frame (frame work to be paid separately)				
106111	Flat surfaces	Sqm	1038.97	873.38	
106112	Curved surfaces	Sqm	1117.89	952.31	
106120	Extra for any sunk or raised moulding in the Plaster of Paris (gypsum anhydrous) ceiling	Sqm	291.11	291.11	
106130	Extra for providing Plaster of Paris (Gypsum anhydrous) ceiling above 5m height from floor level for every additional metre	Sqm	59.82	59.82	
106140	Providing and fixing Dasuti Cloth ceiling of approved quality with necessary nails, screws etc. complete (frame work and beading to be paid separately)	Sqm	41.35	41.35	
106150	Providing, cutting and fixing with screws on existing Wooden / Aluminium / M. S. frames, thermocol board 10mm to 15mm (as directed by the Engineer) thick, of approved shape and sizes and in regular pattern in panels in ceiling	Sqm	67.73	67.73	
106160	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Fibre glass wool conforming to IS:8183 density 24 kg/m ³ , 50mm thick, wrapped in 200G Virgin polythene bags fixed to ceiling with metallic cleats (50mmx 50mmx3mm) @ 60cm and wire mesh of 12.5mm x 24g wire and mesh, for top most ceiling of building	Sqm	415.47	415.47	
106170	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS:8183 density 16 kg/m ³ , 50mm thick, wrapped in 200G Virgin Polythene bags placed over existing false ceiling and held in position by criss-crossing GI wire	Sqm	261.98	261.98	
106180	Thermal Insulation of roofing with expanded polystyrene fixed with suitable adhesive to the false ceiling as per the directions of the Engineer-in-Charge				
106181	With Type N - Normal, 50mm thick	Sqm	220.69	220.69	
106182	With Type SE- Self Extinguishing type, 50mm thick	Sqm	252.63	252.63	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
106190	Providing and fixing circular / hexagonal M.S. sheet ceiling fan box with clamp of internal dia 140mm, 73mm height, 3mm thick rim, top and bottom lid of 1.5mm M. S. Sheet. Lid shall be screwed into M.S. box by means of 3mm round headed screws, clamps shall be made of 12mm dia. M.S. bar bent to shape or all dimensions as specified by engineer in charge as per requirement including finishing the slab surface	Kg	190.61	190.61	
106200	Providing and fixing wooden beading of specified size with square cut or bevelled edges and mitred joints in ceiling with : (Note : This item is not to be paid, if beading is specifically included in the ceiling item)				
106201	50mmX12mm Teak or similar wood beading	metre	122.67	68.31	
106202	30mmX10mm Teak or similar wood beading	metre	63.25	36.07	
106203	50mmX12mm Kail or similar local wood beading	metre	64.68	39.32	
106204	30mmX10mm Kail or similar local wood beading	metre	34.26	21.57	
106210	Dismantling and removing old wooden ceiling and stacking upto 50m or part thereof	Sqm	43.41	43.41	
106220	Dismantling and removing Particle Board, Asbestos or similar sheets ceiling and stacking upto 50m or part thereof	Sqm	63.35	63.35	
	TILED ROOFS				
107010	Supplying and fixing R.P Tiled roofing or roofing with the similar pattern of tiles on roof over wooden or angle battens (wooden or angle battens and laying ridge and hip tiles to be paid separately) excluding lacing with contractor's tiles	Sqm	250.32	241.03	
107011	Supplying and fixing Single layer Country tiled roofing including split bamboo battens	Sqm	144.06	105.03	
107012	Supplying and fixing Double layer Country tiled roofing including split bamboo battens	Sqm	288.12	210.07	
107020	Supplying and fixing Thatch Roofing 15cm thick in two layers with bamboo lining in both directions 23cm apart and tying complete	Sqm	204.34	186.92	
107030	Supplying and fixing Mangalore, R.P. or any other similar type ridge or hip on cement mortar 1:4	metre	52.27	60.30	0.002
107040	Extra for lacing RP or Mangalore tiles or any other similar tiles with contractor's wire (1.6 mm)	metre	23.61	23.61	
107050	Cement sand mortar ridging or hip to R.P. tiled roof (1:2)	metre	58.02	66.05	0.002
107060	Taking down and stacking Raniganj Pattern tiles properly, single layer - labour rates only	Sqm	24.29	24.29	
107070	Taking down and stacking Raniganj pattern tiles properly, double layer - labour rates only	Sqm	42.44	42.44	
107080	Supplying and fixing R.P. or Mangalore ventilating tiles single	Each	47.68	24.45	
107090	Supplying and fixing glass tiles (Mangalore or R.P.Tiles)	Each	53.49	33.74	
107100	Removing and resetting Mangalore ridge tiles in cement mortar 1:6	metre	43.30	35.88	0.002
107110	Removing and resetting Mangalore flat tiles on existing reapers	Sqm	73.39	73.39	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
107120	Providing & fixing pressed clay tile (Mangalore tile) 20mm nominal thickness and of approved size and as per approved pattern ceiling on steel frame work complete (steel frame work to be paid separately)	Sqm	231.53	222.23	
107130	Providing & laying pressed clay tile ridge (Mangalore tile) of 20mm thickness of approved pattern ceiling over steel frame work complete (steel frame work to be paid separately)	Sqm	80.75	107.85	
	RAIN WATER SPOUT AND PIPES :				
108010	Providing and fixing 100mm diameter rain water spout in cement mortar 1:4 (1 cement : 4 fine sand)				
108011	Stone ware spout 60cm long	Each	57.66	57.66	0.002
108012	Unreinforced concrete pipe 60cm long	Each	175.77	175.77	0.002
108020	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 10x10x10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate-20mm nominal size) and cost of cutting holes and making good the walls etc.				
108021	75 mm dia.	Each	98.75	98.42	0.003
108022	100mm dia.	Each	99.45	98.20	0.003
108023	150mm dia.	Each	100.52	100.19	0.005
108030	Providing, erecting and fixing on wall face S.C.I. rain water pipes including filling of joints with spun yarn soaked in neat cement slurry and cement mortar 1:2 (1 cement : 2 fine sand)				
108031	75 mm dia.	metre	798.63	798.63	0.003
108032	100mm dia.	metre	938.22	938.22	0.003
108033	150mm dia.	metre	1458.65	1458.65	0.005
108040	Providing, fixing and embedding cast iron (S&S) Class LA rain water pipes in masonry/RCC surrounded with 12mm thick cement mortar of the same mix that of masonry (lead caulking will be paid for separately)				
108041	75 mm dia.	metre	633.71	633.71	0.066
108042	100mm dia.	metre	802.08	802.08	0.088
108043	150mm dia.	metre	1297.29	1297.29	0.132
108050	Providing lead caulked joints to sand cast iron rain water pipes and fittings				
108051	75 mm dia.	Each	142.81	142.81	
108052	100mm dia.	Each	184.83	184.83	
108053	150mm dia.	Each	258.43	258.43	
108060	Providing erecting and fixing in position on wall face C.I. accessories for rain water pipes including filling the joints with spun yarn soaked in neat cement slurry and cement mortar 1:2 (1 cement : 2 fine sand)				
108061	75 mm dia. CI Plain Bend	Each	482.55	482.55	0.003
108062	100mm dia. CI Plain Bend	Each	585.86	585.86	0.003
108063	150mm dia. CI Plain Bend	Each	1204.42	1204.42	0.005
108070	CI Head Flat or Corner Type Bend				

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
108071	75 mm dia.	Each	1672.44	1672.44	0.002
108072	100mm dia.	Each	2005.21	2005.21	0.002
108073	150mm dia.	Each	2732.49	2732.49	0.003
108080	CI Plain Shoes				
108081	75 mm dia.	Each	549.04	549.04	0.002
108082	100mm dia.	Each	791.21	791.21	0.002
108083	150mm dia.	Each	1820.48	1820.48	0.003
108090	CI Branches (Plain)				
108091	75 mm dia. single branch	Each	700.04	700.04	0.003
108092	75 mm dia. double branch	Each	1696.60	1696.60	0.005
108093	100mm dia. single branch	Each	881.23	881.23	0.005
108094	100mm dia. double branch	Each	2240.77	2240.77	0.006
108095	150mm dia. single branch	Each	2659.37	2659.37	0.008
108096	150mm dia. double branch	Each	3330.43	3330.43	0.009
108100	CI Offset (Plain)				
108101	75 mm dia. 55mm projection	Each	1062.42	1062.42	0.003
108102	100mm dia. 55mm projection	Each	1455.59	1455.59	0.003
108103	150mm dia. 55mm projection	Each	3025.94	3025.94	0.003
108104	75 mm dia. 150mm projection	Each	1153.02	1153.02	0.003
108105	100mm dia. 150mm projection	Each	1697.18	1697.18	0.003
108106	150mm dia. 150mm projection	Each	3268.11	3268.11	0.003
108110	C.I Slotted Vent cowl				
108111	75 mm dia.	Each	397.99	397.99	
108112	100mm dia.	Each	549.62	549.62	
108113	150mm dia.	Each	1065.50	1065.50	
108120	Providing, fixing & embedding sand cast iron plain bend in masonry/RCC surrounded with 12mm thick cement mortar of same mix that of masonry (lead caulking will be paid separately)				
108121	75 mm dia.	Each	422.96	422.96	0.003
108122	100mm dia.	Each	528.71	528.71	0.003
108123	150mm dia.	Each	762.82	762.82	0.005
108130	Providing, fixing and embedding sand cast iron corner type bend in masonry/RCC surrounded with 12mm thick cement mortar of the same mix that of masonry (lead caulking will be paid for separately)				
108131	75 mm dia.	Each	150.82	150.82	0.003
108132	100mm dia.	Each	183.92	183.92	0.003
108133	150mm dia.	Each	260.12	260.12	0.005
108140	Providing, fixing and embedding sand cast iron branches plain in masonry/RCC surrounded with 12mm thick cement mortar of the same mix that of masonry (lead caulking will be paid for separately)				
108141	75 mm dia. single branch	Each	643.06	643.06	0.003
108142	75 mm dia. double branch	Each	1049.59	1049.59	0.003
108143	100mm dia. single branch	Each	759.80	759.80	0.003
108144	100mm dia. double branch	Each	1166.32	1166.32	0.004
108145	150mm dia. single branch	Each	1516.63	1516.63	0.004
108146	150mm dia. double branch	Each	1748.93	1748.93	0.005
108150	Providing, fixing & embedding sand cast iron offset plain in masonry/RCC surrounded with 12mm thick cement mortar of same mix that of masonry (lead caulking will be paid separately)				
108151	75 mm dia. 55mm projection	Each	1049.59	1049.59	0.003
108152	100mm dia. 55mm projection	Each	1514.77	1514.77	0.003

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
108153	150mm dia. 55mm projection	Each	2095.52	2095.52	0.005
108154	75 mm dia. 150mm projection	Each	1281.89	1281.89	0.003
108155	100mm dia. 150mm projection	Each	1747.07	1747.07	0.003
108156	150mm dia. 150mm projection	Each	2444.55	2444.55	0.005
108160	Providing and fixing on wall face unplasticised - Rigid PVC single socketed rain water pipes conforming to IS:13592 Type-A including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion				
108161	75mm dia.	metre	104.94	104.94	0.007
108162	110mm dia.	metre	184.41	184.41	0.001
108170	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 10mm gap for thermal expansion				
108171	Coupler, 75mm	Each	167.08	167.08	
108172	Coupler, 110mm	Each	307.80	307.80	
108173	Single Pushfit Coupler, 75mm	Each	198.49	198.49	
108174	Single Pushfit Coupler, 110mm	Each	354.91	354.91	
108175	Single tee with door, 75mmx75mmx75mm	Each	320.27	320.27	
108176	Single tee with door, 110mmx110mmx110mm	Each	501.50	501.50	
108177	Single tee without door, 75mmx75mmx75mm	Each	273.16	273.16	
108178	Single tee without door, 110mmx110mm x110mm	Each	501.50	501.50	
108180	Providing and fixing on wall face unplasticised - PVC moulded bend and shoe for unplasticised-Rigid PVC rain water pipes conforming to IS:13592 Type-A including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion				
108181	Bend 87.5°, 75mm dia. bend	Each	120.46	120.46	
108182	Bend 87.5°, 110mm dia. bend	Each	204.99	204.99	
108183	Shoe (Plain), 75mm dia. shoe	Each	108.38	108.38	
108184	Shoe (Plain), 110mm dia. shoe	Each	187.72	187.72	
108190	Providing and fixing unplasticised-PVC pipe clips of approved design to unplasticised-PVC rain water pipes by means of 50mmx50mmx50mm 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				
108191	75mm	Each	94.76	94.76	0.001
108192	110mm	Each	97.18	97.18	0.001
108200	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15cm dia and weighing not less than 440 grams	Each	77.31	77.31	
108210	Providing & fixing Bamboo Mat Board conforming to IS:13958-1994 to frames by budding or studding with brass screw complete (frames, backing, studding to be paid separately)				
108211	3 mm thickness	Sqm	696.17	696.17	
108212	4 mm thickness	Sqm	797.80	797.80	
108213	6 mm thickness	Sqm	1015.35	1015.35	
108214	9 mm thickness	Sqm	1315.42	1315.42	
108215	12 mm thickness	Sqm	1539.64	1539.64	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	ADDITIONAL WATER-PROOFING ITEMS				
109010	Surface protection of jack arch roofs with cementitious waterproofing compound including reinstating missing or loose tie rods at end bays of arches (at extra cost); removing existing tar felt and other damaged waterproofing systems; replacing soft or damaged lime terrace, if at isolated locations, with cement concrete (1:2:4); sealing cracks on the roof surface with sealing compound of acrylic-styrene copolymer having density of 0.9, pH 7.0 to 8.0 and having excellent bond & waterproofing properties and a minimum expandability of at least 200%; providing a 10 mm thick cement-sand (1:4) plaster on the entire surface; curing for 7 days; waterproofing the surface with a two-layer plaster; the first layer shall be 5mm thick with cement (OPC or slag), admixed with an octadecanoic acid based cementitious waterproofing compound in the weight ratio of 50:3 for cement and waterproofing compound; and second layer of 12mm thick cement-sand (1:4) plaster, enriched with polyester fibre and curing the plastered surface. (polyester fibre to be paid under separate item)	Sqm	352.15	307.02	As per actual consumption at site
109020	Surface protection of jack arch roofs with polymer incl. reinstating missing or loose tie rods at end bays of arches (at extra cost); removing existing tar felt and other damaged waterproofing systems; replacing soft or damaged lime terrace, if at isolated locations, with cement concrete (1:2:4); sealing cracks on the roof surface with a sealing compound of acrylic-styrene copolymer; waterproofing the surface with three coats of the acrylic-styrene copolymer, admixed with an octadecanoic acid based cementitious waterproofing compound in the weight ratio of 3:1 to build up a thickness of about 1.0 mm; spreading dry coarse sand on the third coat when wet; finally providing a 6 mm thick cement-sand (1:4) plaster enriched with polyester fibre and curing (polyester fibre to be paid under separate item)	Sqm	339.40	326.18	As per actual consumption at site
109030	Arresting water leakages at isolated locations (points of leakage), at cracks and at construction joints with a putty of cement (OPC or slag), modified with a cementitious quick setting compound in a weight ratio of 1:10 (1 part compound : 10 parts cement) and modified with a silica waterproofing compound having the properties of making cement quick setting and non-shrinking in quantities to suit the water pressure conditions at the site and finally topping the plugged material with a surface waterproofing treatment (to be paid separately)				
109031	For Leakage points	Each	405.38	405.38	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109032	For Construction joints	metre	575.98	575.98	
109040	Water proofing surface treatment inside walls and floors of water reservoirs, swimming pools, sunken slabs/toilet floors and inside of basements etc. by cleaning the surface; preparing the surface by acid etching; treating the surface with a two layer plaster; first layer shall be 7/6 mm thick with octadecanoic acid based cementitious waterproofing compound and cement in the weight ratio of 3:50 for waterproofing compound and cement; cement-sand (1:2 on floors of basements and tunnels, 1:3 elsewhere) plaster (12 mm thick on floor, 8 mm thick on vertical surfaces and at ceiling) and curing the plastered surface				
109041	Inside Tunnel Surface	Sqm	261.05	246.23	As per actual consumption at site
109042	Inside Water Reservoir	Sqm	246.45	231.63	As per actual consumption at site
109050	Water proofing of roofs and exposed concrete surfaces by cleaning and preparing the surfaces by acid etching; treating it with a two-layer plaster; the first layer 5mm thick with cement (OPC or slag), admixed with an octadecanoic acid based cementitious waterproofing compound in the weight ratio of 50:3 for cement and waterproofing compound; finally providing a 12mm thick cement-sand (1:4) plaster, enriched with polyester fibre, and curing the plastered surface; the treatment shall be impermeable under a waterhead of 20m (polyester triangular fibre and removal of existing damaged waterproofing system, PCC, Lime Terracing etc., if any to be paid extra under separate item)	Sqm	225.50	200.52	As per actual consumption at site
109060	Water proofing of roofs and exposed concrete surfaces using polymeric waterproofing compound by cleaning and drying the surface; applying two coats (DFT of 200-300 micron) of translucent brown coloured phenolic resin based single component high performance polymeric waterproofing compound @ 0.6 litre per sqm, with demonstrable properties of resistance to water and acid; spraying a layer of dry coarse sand on the second coat when still wet; removing excess sand on the following day; permitting the coatings to cure and dry naturally for 3-7 days; providing a 12mm thick cement-sand (1:4) cover plaster; curing the plaster; the treatment shall be impermeable under a waterhead of 20m (removal of existing damaged waterproofing system, PCC, Lime Terracing etc., if any to be paid extra under separate item).	Sqm	286.35	261.38	As per actual consumption at site

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109070	Making drain mouth on roof waterproof by cleaning the surface of the structure at the location of drain mouth; lowering the drain mouth to the level of the concrete roof; chipping; thorough cleaning; mixing thoroughly an octadecanoic acid based cementitious waterproofing compound in the weight ratio of 50 cement (OPC or slag) and 3 waterproofing compound; placing the drain mouth in its final position, followed by filling of the annular space around the drain pipe with a paste of waterproofing compound-cement; sealing the edges of the drain mouth with acrylic-styrene based copolymer waterproofing compound	Each	425.06	423.40	
109080	Sealing of cracks in concrete roofs by making a V-shaped groove 8-10mm wide and 3-5mm deep; filling the groove with acrylic-styrene based copolymer waterproofing compound in water by repeated application of the waterproofing compound; spreading dry coarse sand when the last application of the sealing compound still wet; removing the excess sand on the following day and letting the treatment dry up for at least a day before any surface treatment on the roof	metre	173.97	173.97	
109090	Treatment of expansion joints by cleaning the joint and surfaces abutting the expansion joint, applying two coats of primer on the cleaned surfaces at the opening of the joint, filling the joint (to a depth equaling half the width) with the paste of a two-component polysulphide based sealant with base-curing agent weight ratio of 12.33:1 and a sp. gr. of 1.60-0.10 gms/cc, permitting the sealant to cure in natural air for at least a day, providing the edges of the treatment with two coats of a paste of octadecanoic acid based cementitious waterproofing compound and acrylic-styrene based copolymer waterproofing material in the weight ration of 1:3	metre	912.68	912.68	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109100	Supply and Installation, including lifting to all heights as required, galvanized steel corrugated sheets having cover width of 1000 mm, 35 mm crest at a pitch of 250 mm stiffened with 8 mm deep intermittent corrugations or profiling approved by engineer-in-charge. G.I. sheet should be made from base metal having 0.52 mm ($\pm$ 0.02 mm) thickness in steel of grade S250GD as per EN 10326, duly hot dip galvanized to grade 275 as per IS:277 (minimum zinc mass 275 gsm total both sides), with colour coating having complete dip tank pre-treatment process with zinc phosphate as main pre treatment followed by PU primer (Permaprime grade) of min 5 micron DFT on each surface; finished with special polyester paint to grade EPG-20 of minimum 20 micron DFT on exposed surface and 5 micron DFT polyester paint in grey shade on unexposed surface. Fixing shall be done with self-tapping screws meeting requirement of Class-3 of AS 3566 with EPDM washers at suitable intervals as per site requirement and as directed by Engineer Incharge complete work.	Sqm	566.32	566.32	
109110	Providing and fixing at all heights false ceiling of 9mm thick Veneered Bamboo Particle Board – Both Side Commercial Veneer SOGP GRADE II (595mm x 595mm) conforming to IS:3097-1980 including providing and fixing of framework made of GI angle 25mmX25mmX0.4mm thick all around, suitably fixed to wall with the help of dash fastener and hanger frame (600mm x 600mm c/c) made of GI Slotted Tee having powder coating on bottom side (30mm x 25mm x 0.3mm thick for main member & 25mm x 25mm x 0.3mm for cross member) connected to ceiling with 2.64mm GI wire and anchor fastener at every junction 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 specification and direction of the Engineer-in-charge as a complete job	Sqm	653.15	653.15	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109120	Providing and fixing at all heights false ceiling of 4mm thick phenol bonded Bamboo Mat board (595mm x 595mm) conforming to IS:13958-1994 including providing and fixing of frame work made of GI angle 25mm x 25mm x 0.4 mm thick all around suitably fixed to wall with the help of dash fastener and hanger frame (600mm x 600mm c/c) made GI Slotted Tee having powder coating on bottom side (30mm x 25mm x 0.3mm thick for main member & 25mm x 25mm x 0.3mm for cross member) connected to ceiling with 2.64mm GI wire and anchor fastener at every junction 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 specifications and direction of Engineer-in-charge as a complete job	Sqm	1180.76	1180.76	
109130	Providing, erecting, laying and fixing in position in 3.5mm – 4mm thick bamboo mat corrugated sheet (BMCS) as per IS:15476 – 2004 in roofing with galvanized iron 'J' or 'L' hooks 8mm dia G.I. plain and bitumen washer etc. complete. Rates include cost of all L&M with all charges such as octroi, sales tax, loading, unloading, stacking as a complete job	Sqm	1214.11	1214.11	
109131	Providing and fixing in position ridges of 3.5mm - 4mm thick bamboo mat ridge cap (BMRC) with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washer etc. complete. The rates include the cost of all L&M with all charges such as octroi, sales tax, loading, unloading, stacking as a complete job. Nothing will be paid extra whatsoever the case may be.	metre	1112.15	1112.15	0.000
109140	Supplying, fabricating and erecting in position 0.91mm thick industrial corrugated aluminium sheets (Profile tolerance conforming to IS:254-1975, made of 988 alloy conforming to IS:737-1974) in full hard (H4) temper, in roof/sides including cuttings of sheet for proper lapping and length and supplying, fabricating and fixing wind ties of MS flat 25mmx6mm on every joint of roof sheeting and on ends of sheeting, supplying of necessary GI 'J' or 'L' Hook bolts (8mm dia. & in suitable length) with nuts and GI washer alongwith standard fibre washers etc. complete in all respect to make the entire roofing/side wall ends watertight and leak proof. The rate will be inclusive of supply of material, labour tools plants and equipments, scaffolding, staging etc. complete.	Sqm	1107.43	1107.43	As per actual consumption at site

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109150	Supplying, fabricating and erecting valley gutter having 1.0m width, made out of 0.91mm thick aluminum sheets, the joints shall be made by aluminum welding to make water tight including supplying manufacturing and fixing brackets made out of MS flats 50mm x 6mm at the spacing of 75cm center to center. The rate will be including supply of all materials, labours, tools, plants, equipments, scaffolding and staging etc. Complete work shall be carried out as directed by engineer in charge	metre	1140.25	1140.25	
109160	Providing, erecting, laying and fixing in position for roofing 2.5mm thick Bamboo - Jute (Natural Fibre) thermoset composite ISO 9001-2000 certified factory-made semi-corrugated sheets having Eco-friendly, Bio-degradable, Maintenance free, Fire Retardant, Weather (+100 °C to -30 °C), Water (absorption 3% max) & Termite Proof and U.V., Alkali & diluted Acid (5%) resistance character of Size 2440 ± 10mm in length and 1220 ± 10mm in width fixed to purlins with GI 'J' or 'L' hooks 8mm dia. GI plain and bitumen washers etc. complete	Sqm	1170.49	1170.49	
109161	Supply and fixing of ISO 9001-2000 certified factory made Bamboo - Jute Composite Ridges for semi-corrugated roofing sheets having Eco-friendly, Bio-degradable, Maintenance free, Fire Retardant, Weather (+100 °C to -30 °C), Water (absorption 3% max) & Termite Proof and U.V., Alkali & diluted Acid (5%) resistance character of size 1220 ± 10mm in length, 300mm to 350mm in width and 2.5mm thick, complete with all fittings	metre	845.22	845.22	
109170	Providing and fixing aluminium standing insulated seam roofing system consisting of bottom layer of 0.47mm thick 35/200 profile galvanised steel liner sheet having 35mm deep ribs with Galvanising of 2M275 coating. A 20mm wide galvanised steel top hat with brackets laid at 1m interval across bottom layer.	Sqm	6692.63	6692.63	
	A single layer of double sided aluminium foil/polyethylene film heavy duty provided over bottom layer for vapour absorption. A single layer of glass wool thermal insulation of 80 mm thickness compressed to 70mm having minimum density of 24 kg/cum, to be placed over aluminium foil.				
	ST clips made of stainless steel duly insulated to be placed at suitable interval all over top hat fixed with nut and bolts or rivetted. Top layer made of aluminium profile sheet in 65/400mm profile sheeting made of aluminium alloy having 0.9mm minimum thickness duly covered with PVDF coating on both faces having tongue and groove fixing arrangement. Work to be carried out as per specifications laid in IR Unified Standard Specifications.				

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109180	Providing and fixing of single skin self supported secret fix aluminium standing seam roofing system consisting of aluminium profile sheet in 65/400 mm manufactured from aluminum alloy AA3004 and having 0.9mm minimum thickness with PVDF coating on exposed surface (colour as approved by Engineer Incharge) having male and female fixing arrangements, to be zipped together and non-penetrative including fixing of L-25 ST clips with thermal insulation pad at suitable interval all over the top-hat/purlin fixed with SD screws and stainless steel fasteners	Sqm	5091.50	5091.50	
109190	Providing and fixing PVC false ceiling tiles of required size in true horizontal levels suspended on interlocking MS tube grid of section 25mmx25mmx1.2mm. PVC ceiling tiles should have a section size of 6mmx250mm with wall thickness of 0.8mm. Perimeter edge of tiles shall be covered by extruded PVC corner beeding of size 9mm x 8mm x1 mm. MS tube section grid should be properly secured with walls and anchored to roof with the help of suitable clamps with complete work.	Sqm	802.15	802.15	
109200	Providing and fixing permanently colour coated trapezoidal profiled sheet of depth 28-30mm at 195-205mm pitch distance with precisely engineered "Rib & Flute" design. Profiled sheets shall be min. 0.5mm TCT/0.45mm BMT high tensile zinc aluminium alloy coated zincalume / galvalume steel sheet (550 mpa yield strength) having a coating of mass of 150 gsm zinc-aluminium coating AZ-150 total on both sides as per AS 1397:1993 finished with 20 microns approved colour coating of Silicon Modified Polyester (SMP) / Super Polyester paint coat on exposed surface over a primer coat of 5 microns and a back coat of 5 microns on reverse side over a 5 microns primer coat. There shall be 2 small ribs/square flutes between profiles for providing additional strength. The sheet to be fixed over the purlins with hexagonal head self drilling suitable fasteners with neoprene / EPDM washer on crests of the sheet	Sqm	470.06	470.06	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109210	Providing and fixing 0.55mm TCT Standing Seam/clip-lock Profile for roofing comprising Zincalume / Galvalume base steel of metal thickness 0.5mm and coated with Zinc- Aluminium coating of AZ-150 (150 gsm) as per AS : 1397-1993 (total of both sides) and permanently colour coated with 20 microns Super Polyester / SMP Colour Coating over a 5 micron primer and back coat of 5 micron over a 5 micron primer. Standing Seam sheets to be profiled to desired length & width of 400mm to 770mm, having profile depth of 31mm to 61mm with a unique concealed clip made from GI, one portion of the clip (lower) fastened to purlin and upper part gets attached to roofing sheet. Thereby providing an absolutely puncture-less roof with concealed clip crimped / locked together by a mechanical sewing machine	Sqm	765.42	765.42	
109220	Providing and applying water proofing treatment to RCC roof slab etc. by application of two coats of cement slurry mixed with water proofing compound (acrylic based polymer, solid content 30% $\pm$ 3, pH >7) in the ratio of 1:2 (1 part of water proofing compound : 2 parts of cement by weight), followed by two coats of single component moisture cured polyurethane based elastomeric water proofing coating conforming to ASTM C-836-89 having tensile strength 3.1 N/mm ² . Topping layer of 25mm thick cement concrete 1:2:4 (to be paid separately) to be laid.	Sqm	686.91	686.91	0.020
109230	Supply and installation, including lifting to all heights as required, trapezoidal/corrugated sheeting system in galvalume colour coated steel having cover width of 1000 mm, 35 mm crest at a pitch of 250mm stiffened with 8mm deep intermittent corrugations or profiling approved by engineer-in-charge. Sheet should be made from base metal having 0.52mm ($\pm$ 0.02 mm) thickness in steel of grade 345 as per ASTM A792M, coated with alloy of Aluminum & Zinc to grade AZ150 (min. alloy mass 150 gsm total both sides) with colour coating having complete dip tank pre-treatment process with Chromate Conversion (Cr +3) as main pre-treatment followed by PU primer (Permaprime grade) of min. 5 micron DFT on each surface; finished with special polyester paint to grade EPG-20 of minimum 20 micron DFT on exposed surface and 5 micron in grey shade on unexposed surface. Fixing shall be done with self-tapping screws meeting requirement of Class-3 of AS 3566 with EPDM washers at suitable intervals as per site requirement and as directed by Engineer Incharge complete work	Sqm	509.23	509.23	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109240	Supplying and installation including lifting to all heights as required, of standing seam system 0.7 mm thick aluminum sheets having cover width of 550 mm, 46 mm crest height with horizontal stiffening ribs, made of Aluminum Manganese alloy 5754 grade in mill finish. The sheets shall have side locking with special anti-friction, anti-static, polyamide / acetylate brackets which allow thermal movement to the sheets. Clips shall be fixed to purlins/structure with zinc coated self-tapping drilling screws. Sheets shall be site roll formed for giving required profile and length. Complete job to be done as per directions of Engineer Incharge.	Sqm	3629.14	3629.14	
109250	Providing and fixing of plain formed flashing at ridges / cover / corner / barge pieces / apex junctions of roofing and cladding made of polyester colour GI sheets 0.52 mm thick in required shape colour, duly fixed with stitching screws (with EPDM washers etc. as per site requirement				
109251	Upto 600mm width (girth)	R metre	402.94	402.94	
109252	601mm to 1200mm width (girth)	R metre	535.87	535.87	
109260	Providing & fixing of coloured galvalume plain sheet flashings at ridges / apex junctions of roofing cladding, cover / corner / barge pieces etc. in required shape, colour duly fixed with stitching screws (with EPDM washers etc. as per site requirement)				
109261	Upto 600mm width (girth)	R metre	426.11	426.11	
109262	601mm to 1200mm width (girth)	R metre	572.46	572.46	
109270	Providing and fixing of plain formed 0.7mm thick aluminum sheet flashing at ridges apex junctions of roofing and cladding, cover / corner / barge pieces etc. of required shape colour and profile as per site requirement				
109271	Upto 600mm width (girth)	R metre	2073.75	2073.75	
109272	601mm to 1200mm width (girth)	R metre	3009.17	3009.17	
109280	Supplying and installation including lifting to all heights as required, of 0.5mm thick trapezoidal aluminum sheets having cover width of 975mm, 32mm crest height, pitch of 195mm made of Aluminum Manganese alloy 5754 grade in mill finish. Fixing shall be done with self tapping, self drilling screws of required TPI (24 or 14 or as thickness of purlin) and length, with neutral EPDM washer etc. complete	Sqm	874.66	874.66	
109290	Providing and fixing of plain formed 0.5mm thick aluminum sheet flashing at ridges apex junctions of roofing and cladding, cover / corner / barge pieces etc. of required shape colour and profile as per site requirement				
109291	Upto 600mm width (girth)	R metre	2111.68	2111.68	
109292	601mm to 1200mm width (girth)	R metre	3089.66	3089.66	

Item. No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
109300	Extra over item no. 109280, if Stucco embossed finished aluminium sheets are used instead of mill-finish sheets	Sqm	77.82	77.82	
109310	Extra over item nos. 109240 & 109280 for aluminium sheets with 5 micron DFT primer on both faces alongwith 20 micron & 5 micron DFT Polyester colour coating on exposed & unexposed surfaces respectively, instead of mill finish	Sqm	760.78	760.78	
	New Items To Be Added By Zonal Railway				
109410					
109420					
109430					
109440					
109450					

CHAPTER - 11 : FINISHING MASONRY					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	Note : Rates for external plaster are for height upto 10m from ground level, unless otherwise stated.				
	CEMENT PLASTER (IN FINE SAND) :				
111010	12mm cement plaster of mix -				
111011	1:4 (1 cement : 4 fine sand)	Sqm	96.19	70.54	0.055
111012	1:6 (1 cement : 6 fine sand)	Sqm	96.19	70.54	0.036
111020	15 mm cement plaster on the rough side of single or half brick wall of mix -				
111021	1:4 (1 cement : 4 fine sand)	Sqm	111.79	81.15	0.065
111022	1:6 (1 cement : 6 fine sand)	Sqm	111.78	81.16	0.043
111030	20mm cement plaster of mix -				
111031	1:4 (1 cement : 4 fine sand)	Sqm	135.21	95.30	0.085
111032	1:6 (1 cement : 6 fine sand)	Sqm	135.20	95.31	0.056
111040	12 mm cement plaster of mix -				
111041	1:4 (1 cement : 4 coarse sand)	Sqm	104.92	72.88	0.055
111042	1:6 (1 cement : 6 coarse sand)	Sqm	104.92	72.88	0.036
111050	15mm cement plaster on the rough side of single or half brick wall of mix -				
111051	1:4 (1 cement : 4 coarse sand)	Sqm	122.21	83.95	0.065
111052	1:6 (1 cement : 6 coarse sand)	Sqm	122.21	83.95	0.043
111060	20mm cement plaster of mix				
111061	1:4 (1 cement : 4 coarse sand)	Sqm	148.78	98.95	0.085
111062	1:6 (1 cement : 6 coarse sand)	Sqm	148.78	98.95	0.056
111070	12mm cement plaster finished with a floating coat of neat cement of mix -				
111071	1:3 (1 cement : 3 fine sand)	Sqm	109.78	84.14	0.095
111072	1:4 (1 cement : 4 fine sand)	Sqm	110.72	85.07	0.077
111080	15mm cement plaster on rough side of single or half brick wall finished a floating coat of neat cement of mix -				
111081	1:3 (1 cement : 3 fine sand)	Sqm	126.32	95.69	0.110
111082	1:4 (1 cement : 4 fine sand)	Sqm	126.33	95.68	0.087
111090	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement	Sqm	119.45	87.41	0.095
111100	15mm 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	136.74	98.48	0.110
	CEMENT PLASTER IN TWO COATS :				
111110	18mm cement plaster in two coats under layer 12mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6mm thick cement plaster 1:6 (1 cement : 6 fine sand)	Sqm	154.26	109.41	0.063
111120	18mm cement plaster in two coats under layer 12mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge/rubber pad	Sqm	158.63	110.57	0.081
111130	12mm cement plaster 1:2 (1 cement : 2 stone dust)	Sqm	70.60	65.84	0.098

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
111140	15mm cement plaster 1:2 (1 cement : 2 stone dust) on the rough side of single or half brick wall	Sqm	81.23	75.54	0.117
111150	Cement plaster to ceiling of mix -				
111151	6mm thick 1:3 (1 cement : 3 fine sand)	Sqm	73.96	61.14	0.037
111152	12mm thick 1:3 (1 cement : 3 fine sand)	Sqm	99.89	74.25	0.073
111160	6mm cement plaster 1:3 to CC/RCC in columns, beams, stairs etc when specifically ordered except underside of ceiling	Sqm	75.35	62.53	0.037
111170	6mm 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	93.17	80.00	0.059
111180	Neat cement punning	Sqm	14.53	14.53	0.022
	SPECIAL TYPES PLASTER				
112010	12mm cement lime plaster of mix : (For repair works only)				
112011	1:1:6 (1 cement : 1 lime putty : 6 fine sand)	Sqm	116.97	89.42	0.036
112012	1:1:9 (1 cement : 1 lime putty : 9 fine sand)	Sqm	117.70	87.55	0.024
112020	15mm cement lime plaster on rough side of single or half brick wall of mix (For repair works only)				
112030	1:1:6 (1 cement : 1 lime putty : 6 fine sand)	Sqm	133.65	100.75	0.042
112040	Providing and applying plaster of Paris putty of 2mm average thickness over plastered surface to prepare the surface even and smooth complete	Sqm	95.04	95.04	
112050	Providing and applying 12mm thick (average) premixed formulated one coat gypsum light weight 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	256.76	256.76	
112060	Rough cast plaster upto 10m height above ground level with a mixture of sand and gravel or crushed stone from 6mm to 10mm nominal size dashed over and including the fresh plaster in two layers, under layer 12mm ordinary cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10mm cement plaster 1:3 (1 cement : 3 fine sand)	Sqm	246.17	187.36	0.116
112070	Pebble dash plaster upto 10m height above ground level with a mixture of washed pebble or crushed stone 6mm to 12.5mm nominal size) dashed over and including fresh plaster in two layers under layer 12mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand)	Sqm	233.53	174.72	0.116

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
112080	Washed stone grit plaster on exterior walls of height upto 10m above level in two layers, under layer 12mm cement plaster 1:4 (1 cement : 4 coarse sand) furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2kg. of cement per square meter, top layer 15mm cement plaster 1:1.2:2 (1 cement : 1.2 coarse sand : 2 stone chipping-10mm 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 the Engineer-in-Charge (payment for providing grooves shall be made separately)	Sqm	285.41	245.06	0.164
112090	Extra for washed stone grit plaster on exterior walls of height more than 10m from ground level for every additional height of 3m or part thereof	Sqm	22.11	22.11	
112100	Extra for washed stone grit plaster on circular work not exceeding 6m in radius (in two coats)	Sqm	32.56	32.56	
112110	Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster	Sqm	155.64	155.64	
112120	18mm plastering upto 10m height above ground level with terrazzo finish rubbed and polished complete, under layer 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) and top layer 6mm thick white, black, chocolate, grey, yellow or baroda green marble chips of 3mm and down 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	Sqm	581.29	542.58	0.129
112130	Extra, if white cement is used instead of ordinary cement in top layer of 18mm thick plastering with terrazzo finish	Sqm	79.38	79.38	0.000
112140	Extra, if colour is added to grey or white cement in top layer of 18mm plastering with terrazzo finish				
112141	Red, Chocolate, Orange or buff (yellow) colour	Sqm	34.64	34.64	
112142	Black colour	Sqm	24.74	24.74	
112143	Blue or green colour	Sqm	48.99	48.99	
112150	Extra for 18mm thick terrazzo finish marble chips plastering circular work not exceeding 6m radius	Sqm	18.22	18.22	
	PLAIN CEMENT MORTAR BANDS :				
113010	12mm thick cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand)				
113011	Flush Band plain	m long x cm wide	1.86	1.61	0.001
113012	Sunk Band plain	m long x cm wide	2.02	1.77	0.001
113013	Raised Band plain	m long x cm wide	2.28	2.03	0.001
113014	Moulded Band	m long x cm wide	3.78	3.53	0.001

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
113020	18mm thick cement mortar band incl. cement mortar 1:4 (1 cement : 4 fine sand) -				
113021	Flush Band plain	m long x cm wide	2.30	1.95	0.001
113022	Sunk Band plain	m long x cm wide	2.51	2.16	0.001
113023	Raised Band plain	m long x cm wide	2.84	2.48	0.001
113024	Moulded Band	m long x cm wide	5.12	4.69	0.001
113030	18mm thick moulded cement mortar band in two coats under layer 12mm thick with cement mortar 1:5 (1 cement : 5 coarse sand) top layer 6mm thick with cement mortar 1:4 (1 cement : 4 fine sand)	m long x cm wide	5.20	4.71	0.001
	POINTING				
114010	Pointing on brick work with cement mortar 1:3 (1 cement : 3 fine sand)				
114011	Flush/Ruled/Struck or weathered pointing	Sqm	58.89	53.55	0.015
114012	Raised and cut pointing	Sqm	96.80	88.61	0.020
114020	Pointing on brick/tile flooring with cement mortar 1:3 (1 cement : 3 fine sand)				
114021	Flush pointing	Sqm	49.11	43.77	0.015
114022	Ruled pointing	Sqm	58.05	52.71	0.015
114030	Flush/ Ruled/ Struck or Weathered Pointing on tile brick work with cement mortar 1:3 (1 cement : 3 fine sand)	Sqm	80.49	72.30	0.015
114040	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand)				
114041	Flush/Ruled pointing	Sqm	86.26	82.17	0.024
114042	Raised and cut pointing	Sqm	157.72	150.95	0.024
114050	Raised and cut pointing on stone work in white cement mortar 1:3 (1 white cement : 3 marble dust)	Sqm	183.93	183.93	0.024
114060	Deep grooved pointing on Coarse Rubble masonry 1:3	Sqm	153.65	134.67	0.024
114070	Flush Pointing on stone slab flooring with cement mortar 1:2 (1 cement : 2 fine sand)	Sqm	68.56	36.45	0.007
114080	Flush Pointing on dry stone pitching in cement and sand (ordinary) 1:3	Sqm	28.57	22.78	0.012
114090	Flush pointing to joints of Mangalore tiled roof 12mm deep with cement mortar 1:2	Sqm	83.62	81.25	0.015
114100	Pointing on stone slab ceiling with cement mortar 1:2 (1 cement : 2 fine sand)				
114101	Flush pointing	Sqm	47.39	45.01	0.007
114102	Ruled pointing	Sqm	52.87	50.50	0.007
114110	Extra for pointing on walls on the outside at height more than 10m from ground level for every additional height of 3m or part thereof	Sqm	3.11	3.11	
	WHITE WASHING, COLOUR WASHING DISTEMPERING AND PAINTING				
115010	White washing with lime to give an even shade				
115011	New work (three or more coats)	Sqm	9.24	8.72	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
115012	Extra for using zinc oxide 75 gm/kg of lime for final coat of white washing	Sqm	1.61	1.61	
115020	Lime wash on walls one coat with quick lime of approved quality	Sqm	4.02	3.67	
115030	Colour washing such as green, blue or buff to give an even shade				
115031	New work (two or more coats) with a base coat of white washing with lime	Sqm	11.58	11.06	
115032	New work (two or more coats) with a base coat of whitening	Sqm	11.70	11.18	
115040	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade				
115041	New work (two or more coats of distemper) over and including priming coat with cement primer	Sqm	62.52	62.52	
115042	New work (two or more coats of distemper) over and including priming coat with distemper primer	Sqm	61.79	61.79	
115050	Distempering two or more coats on new work with 1st quality acrylic washable distemper (ready mixed) of approved manufacturer and of required shade and colour complete as per manufacturer's specification	Sqm	33.82	33.82	
115060	Applying one coat of cement primer of approved brand and manufacture on wall surface	Sqm	26.27	26.27	
115070	Extra over Items 115040, 115050 in case primer is applied on gritted/ rough cast/sand faced or alike rough surfaces	Sqm	0.25	0.25	
115080	Finishing walls with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications with two or more coats applied @ 1.25 litre/10 sqm over and including one coat of Special primer applied @ 0.75 litre/10sqm	Sqm	49.82	49.82	
115090	Wall painting on new work with two or more coats of plastic emulsion paint of approved brand and manufacture to give an even shade	Sqm	56.90	56.90	
115091	Extra over Items for roller painting in lieu of normal brush painting, if specifically ordered	Sqm	10.97	10.97	
115092	Extra over Items for spray painting in lieu of normal brush painting, if specifically ordered	Sqm	13.73	13.73	
115100	Painting one thin coat with white lead of approved brand and manufacture on wet or patchy portion of plastered surfaces	Sqm	36.25	36.25	
115110	Finishing walls with water proofing cement paint of required shade two or more coats on new work applied @ 3.84 kg/10 sqm	Sqm	42.91	42.91	
115120	Cement washing single coat (Ordinary Portland cement)	Sqm	4.08	4.08	0.002
115130	Cement washing two coat (Ordinary Portland cement)	Sqm	6.20	6.20	0.004
115140	Finishing walls with textured exterior paint of required shade on new work (two or more coats applied @ 3.28 litre/10sqm) over and including base coat of water proofing cement paint applied @ 2.20 kg/10sqm	Sqm	99.42	99.42	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
115150	Finishing walls with textured Interior paint of required shade on new work (two or more coats applied @ 3.28 litre/10sqm) over and including base coat of water proofing cement paint applied @ 2.20 kg/10sqm	Sqm	69.81	69.81	
115160	Finishing walls with Acrylic Smooth Exterior Paint with Silicone additives of required shade on new work (Two or more coats applied @ 1.67 litre/10sqm over and including one coat of water proofing cement paint applied @ 2.20 kg/10sqm	Sqm	76.33	76.33	
115170	Finishing walls with Acrylic Smooth Interior Paint of required shade on new work (two or more coats applied @ 1.67 litre/10 sqm over and including base coat of water proofing cement paint applied @ 2.20 kg/10sqm	Sqm	67.89	67.89	
115180	Finishing walls with Premium Acrylic Smooth Exterior Paint with Silicone additives of required shade on new work (Two or more coats applied @ 1.43 litre/10sqm over and including one coat of water proofing cement paint applied @ 2.20 kg/10sqm	Sqm	70.98	70.98	
115190	Finishing walls with Premium Acrylic Smooth Interior Paint with Silicone additives of required shade on new work (Two or more coats applied @ 1.43 litre/10sqm over and including one coat of water proofing cement paint applied @ 2.20 kg/10sqm	Sqm	70.33	70.33	
115200	Extra for applying water proofing cement paint as primer applied @ 2.2kg/10sqm instead of primer for exterior finishing	Sqm	3.62	3.62	
	MISCELLANEOUS				
116010	Cement plaster 1:3, 12mm thick (1 cement : 3 ordinary sand) on girders/RCC columns or other parts encased with rabbit wire netting or expanded metal (Note : Payment for encasing to be done separately)	metre	109.99	84.35	0.077
116020	Rounding top of walls, 20cm/23cm thick wall, with cement mortar 1 : 6 finish, with hearting of brick masonry. (height at centre=10cm/11.5cm)	metre	115.45	95.13	0.033
116030	Rounding top of walls, 30cm/35cm thick wall, with cement mortar 1: 6 finish, with hearting of 1: 3 : 6 cement concrete. (height at centre =15cm/17.5cm)	metre	179.43	102.86	0.099
116040	Fixing sharp glass pieces in cement mortar 1:4, 25mm thick, on the top of brick masonry or stone masonry compound walls (glass pieces to be supplied by the contractor)	Sqm	154.30	109.76	0.106
116050	Fixing Railway's glass pieces on compound wall including cement plastering 20mm thick in cement mortar 1:4 (1 cement : 4 sand)	Sqm	103.38	67.74	0.106
116060	Ragging masonry or concrete surface including watering and cleaning				
116061	Masonry or concrete built in cement mortar	Sqm	15.59	15.59	
116062	Masonry or concrete built in lime mortar	Sqm	14.50	14.50	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
116070	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 on concrete work	Sqm	97.22	97.22	
116080	Floor painting on new work with two or more coats of floor enamel paint of approved brand and manufacture to give an even shade :	Sqm	54.74	54.74	
116090	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture	Sqm	24.21	24.21	
116100	Extra for providing and mixing water proofing compound (pH>7, Sp.Gravity 1.06±0.02, conforming to IS:2645) in cement plaster @ 100ml per 50 kg cement bag	100 ml	9.80	9.80	
116110	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3m or part thereof	Sqm	21.66	21.66	
116120	Extra for plastering on circular work not exceeding 6m in radius				
116121	In one coat	Sqm	10.90	10.90	
116122	In two coats	Sqm	16.66	16.66	
116130	Extra for plastering done on moulding cornices or architraves including neat finish to line and level :				
116131	In one coat	Sqm	158.24	158.24	
116132	In two coats	Sqm	260.75	260.75	
116140	Extra for plastering on :				
116141	Spherical ceiling	Sqm	40.66	40.66	
116142	Groined ceiling (Gritted)	Sqm	44.24	44.24	
116143	Flowing soffits (Spiral)	Sqm	26.73	26.73	
116150	Extra for lining out plaster to imitate stone or concrete blocks walling	Sqm	25.39	25.39	
116160	Extra for forming groove of uniform size from 12mmx12mm & upto 25mmx15mm in plastered surface as per approved pattern using wooden battens, nailed to the underlayer including removal of wooden battens, repairs to the edges of plaster panel and finishing the groove complete as per specifications and direction of Engineer-in-Charge	Sqm	28.51	28.51	
	White/Colour washing/Pointing on Old work				
117010	Pointing on brick work with lime surkhi mortar 1:2 (1 lime putty : 2 surkhi) (on old work) :				
117011	Flush pointing	Sqm	72.81	68.95	
117012	Ruled pointing	Sqm	73.46	69.85	
117013	Struck or weathered pointing	Sqm	73.51	69.64	
117020	Pointing on brickwork with an admixture of white cement lime putty marble dust and stone dust in proportion ¼:1:1:1 (¼ white cement : 1 lime putty : 1 marble dust : 1 stone dust) (on old work)				
117021	Flush pointing	Sqm	75.98	74.55	
117022	Ruled pointing	Sqm	76.41	75.08	
117023	Struck or weathered pointing	Sqm	76.67	75.24	
117030	Pointing on tile brick work with lime mortar 1:2 (1 lime putty : 2 surkhi) (on old work) :				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
117031	Flush pointing	Sqm	104.92	99.00	
117032	Ruled pointing	Sqm	106.89	100.96	
117033	Struck or weathered pointing	Sqm	105.20	99.28	
117040	Pointing on tile brick work with an admixture of white cement lime marble dust and stone dust in proportion ¼:1:1:1 (¼ white cement : 1 lime putty : 1 marble dust : 1 stone dust) (on old work) :				
117041	Flush pointing	Sqm	109.78	107.58	
117042	Ruled pointing	Sqm	111.74	109.55	
117043	Struck or weathered pointing	Sqm	110.06	107.86	
117050	White washing with lime to give an even shade :				
117051	Old work (two or more coats)	Sqm	7.52	7.20	
117052	Old work (one or more coats)	Sqm	5.55	5.34	
117060	White washing with whiting to give an even shade :				
117061	Old work (two or more coats)	Sqm	7.10	7.10	
117062	Old work (one or more coats)	Sqm	5.27	5.27	
117070	Colour washing such as green, blue or buff to give an even shade :				
117071	Old work (two or more coats) with lime	Sqm	7.62	7.31	
117072	Old work (two or more coats) with whiting	Sqm	7.21	7.21	
117073	Old work (one or more coats) with lime	Sqm	5.62	5.41	
117074	Old work (one or more coats) with whiting	Sqm	5.34	5.34	
117080	Oil bound distemper after removing old white/colour wash by scrapping and sand papering etc., preparing the surface smooth including necessary repairs to scratches with putty etc. complete				
117081	Two or more coat, to give an even shade	Sqm	55.89	55.89	
117082	One or more coat, to give an even shade	Sqm	45.57	45.57	
117090	Plastic emulsion paint after removing white/colour wash by scrapping and sand papering etc., preparing the surface smooth including necessary repairs to scratches with putty etc. complete				
117091	Two or more coat, to give an even shade	Sqm	81.60	81.60	
117092	One or more coat, to give an even shade	Sqm	61.72	61.72	
	New Items To Be Added By Zonal Railways				
118010					
118020					
118030					
118040					
118050					
118060					
118070					
118080					
118090					
118100					

CHAPTER - 12 : PAINTING, POLISHING & VARNISHING				
Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
	PAINTING – SURFACES OTHER THAN MASONRY			
121010	Applying Priming Coat :			
121011	With ready mixed pink or grey primer of approved brand and manufacture on woodwork (hard and soft wood)	Sqm	23.15	23.15
121012	With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood	Sqm	28.32	28.32
121013	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron/steel works	Sqm	20.15	20.15
121014	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	Sqm	11.33	11.33
121020	Painting wood work with Deluxe Multi Surfaces Paint of required shade. Two or more coat applied @ 0.90 litre/10sqm over an under coat of primer, applied @ 0.75 litre/10sqm of approved brand or manufacture	Sqm	45.98	45.98
121030	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coats applied @ 0.90 litre/10sqm over an under coat of primer applied @ 0.80 litre/10sqm of approved brand or manufacture	Sqm	50.18	50.18
121040	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			
121041	On steel work	Sqm	97.43	97.43
121050	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade			
121051	Two or more coats on new work	Sqm	49.59	49.59
121052	One or more coats on old work	Sqm	32.14	32.14
121060	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade			
121061	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	72.12	72.12
121070	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade			
121071	New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution	Sqm	52.65	52.65
121072	Old work (One or more coats)	Sqm	28.66	28.66
121080	Applying a coat of mordant solution on G.S. sheet			
121081	With a solution of 38gm Of copper acetate in a litre of soft water	Sqm	16.58	16.58
121082	With a solution made of 13 gm of hydrochloric acid in a solution of 13 gm. Each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water	Sqm	16.50	16.50

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
121083	Treating new G.S. Sheets with a solution of 9 gm of washing soda per litre of water, scrubbing the surface and rinsing with water	Sqm	16.05	16.05
121090	Painting with aluminium paint of approved brand and manufacture to give an even shade			
121091	Two or more coats on new work	Sqm	46.09	46.09
121092	One or more coats on old work	Sqm	29.34	29.34
121100	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade			
121101	Two or more coats on new work	Sqm	38.33	38.33
121102	One or more coats on old work	Sqm	25.35	25.35
121110	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade			
121111	Two or more coats on new work	Sqm	36.20	36.20
121112	One or more coats on old work	Sqm	24.20	24.20
121120	Coal tarring two coat on new work using 0.16 litre and 0.12 litre of coal tar per sqm in the first coat and second coat respectively	Sqm	39.07	39.07
121130	Coal tarring one coat on old work using 0.12litre of coal tar per sqm	Sqm	20.33	20.33
121140	Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade	Sqm	25.70	25.70
121150	Painting two coats (excluding priming coat) with chocolate, red, grey or buff ready mixed paint of approved quality on steel or wood work	Sqm	48.34	48.34
121160	Painting one coat with chocolate, red, grey or buff ready mixed paint of approved quality on steel or wood work	Sqm	29.78	29.78
121170	Painting two coats (excluding priming coat) with white or green ready mixed paint of approved quality on steel or wood work	Sqm	48.34	48.34
121180	Painting one coat with white or green ready mixed paint of approved quality on steel or wood work	Sqm	30.64	30.64
121190	Spray painting with flat wall paint of approved quality (excluding priming coat) to give an even shade :			
121191	Two or more coats on new work	Sqm	66.84	58.13
121192	One or more coat on old work	Sqm	41.83	36.60
121200	Spray painting with superior quality lacquer paint of approved quality (excluding priming coat) to give an even shade :			
121201	Two or more coats on new work	Sqm	70.60	58.12
121202	One or more coat on old work	Sqm	50.68	43.42
121210	Powder coating/50 microns by spray method for all metal surfaces to form priming coat after and including preparation of surfaces by thoroughly cleaning, oil, grease, dust and other foreign matter and also including pigment of any shade for :			
121211	Surfaces over 10cm in width/girth	Sqm	40.49	33.23
121212	Surfaces upto 10cm in width/girth and not in conjunction with similar painted surfaces	metre	12.06	10.61
121213	Small articles not exceeding 0.1sqm in area and not in conjunction with similar painted surfaces	Each	11.94	10.49

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
121220	Painting new work (two or more coats) with oil type wood preservative of approved brand and manufacture	Sqm	29.22	29.22
121230	Providing and applying two coats of fire retardant paint unthinned on cleaned wood/ply surface @ 1 litre/3.5 sqm per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant	Sqm	259.70	259.70
121240	Lettering with "Black Japan" paint (two coats) of approved brand and manufacture	Each of 1 cm height	1.55	1.55
121250	Lettering with "Synthetic Enamel" paint (two coats) of approved brand and manufacture	Each of 1 cm height	1.57	1.57
121260	Relettering with "Black Japan" paint (one coat)	Each of 1 cm height	1.09	1.09
121270	Relettering with "Synthetic Enamel" paint (one coat)	Each of 1 cm height	1.21	1.21
121280	Painting border lines upto 150 mm width with two coats of synthetic enamel paint	Each of 1 cm height	1.02	1.02
	PAINTING OF PIPES AND FITTINGS			
122010	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint approved brand and manufacture over and including a priming of ready mixed zinc chromate yellow primer on new work :			
122011	75mm diameter pipes	metre	14.42	14.42
122012	100mm diameter pipes	metre	21.28	21.28
122013	150mm diameter pipes	metre	31.23	31.23
122020	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint approved brand and manufacture on old work :			
122021	75mm diameter pipes	metre	7.27	7.27
122022	100mm diameter pipes	metre	9.57	9.57
122023	150mm diameter pipes	metre	13.72	13.72
122030	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/anti corrosive black enamel paint of approved quality over a priming coat of approved steel primer on new work :			
122031	75mm diameter pipes	metre	18.43	18.43
122032	100mm diameter pipes	metre	24.58	24.58
122033	150mm diameter pipes	metre	36.64	36.64
122040	Painting one or more coat (on old work) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour / anti corrosive black enamel paint of approved quality :			
122041	75mm diameter pipes	metre	7.68	7.68
122042	100mm diameter pipes	metre	9.93	9.93
122043	150mm diameter pipes	metre	14.48	14.48
122050	Painting two coats on G.I. Pipes and fittings with synthetic enamel white paint over a ready mixed priming coat, both of approved quality :			
122051	15mm diameter pipe	metre	6.18	6.18
122052	20mm diameter pipe	metre	7.36	7.36
122053	25mm diameter pipe	metre	9.62	9.62
122054	32mm diameter pipe	metre	11.49	11.49

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
122055	40mm diameter pipe	metre	13.54	13.54
122056	50mm diameter pipe	metre	16.10	16.10
122060	Repainting one coat on G.I. Pipes and fittings with synthetic enamel white paint of approved quality :			
122061	15mm diameter pipe	metre	3.10	3.10
122062	20mm diameter pipe	metre	3.65	3.65
122063	25mm diameter pipe	metre	4.66	4.66
122064	32mm diameter pipe	metre	5.09	5.09
122065	40mm diameter pipe	metre	6.46	6.46
122066	50mm diameter pipe	metre	7.66	7.66
122070	Painting G.I. Pipes (New work) and fittings with two coats of anti-corrosive bitumastic paint of approved quality :			
122071	15mm diameter pipe	metre	3.37	3.37
122072	20mm diameter pipe	metre	4.00	4.00
122073	25mm diameter pipe	metre	5.09	5.09
122074	32mm diameter pipe	metre	6.08	6.08
122075	40mm diameter pipe	metre	6.92	6.92
122076	50mm diameter pipe	metre	8.28	8.28
122077	80mm diameter pipe	metre	11.84	11.84
	PAINTING OF SPECIAL ITEMS			
123010	Painting one coat any shade, as directed of approved make and brand at a) Trusses upto 9m clear span and b) Staging with O.H. tank, where staging is upto 2.5m in height :			
123011	With Red Oxide metal primer as per IS:123	Sqm	17.45	17.45
123012	With Zinc Chromate primer as per IS:104	Sqm	16.22	16.22
123013	With Synthetic Enamel paint	Sqm	24.26	24.26
123014	With Aluminium paint as per IS:2339	Sqm	19.02	19.02
123020	Painting two coats, any shade as directed of approved make and brand at a) Trusses upto 9m clear span and b) Staging with O.H. tank, where staging is upto 2.5m in height :			
123021	With Red Oxide metal primer as per IS:123	Sqm	31.77	31.77
123022	With Zinc Chromate primer as per IS:104	Sqm	29.62	29.62
123023	With Synthetic Enamel paint	Sqm	43.69	43.69
123024	With Aluminium paint as per IS:2339	Sqm	34.53	34.53
123030	Painting one coat, any shade as directed of approved make and brand at a) Trusses exceeding 9m clear span, b) Staging with O.H. tank where staging is more than 2.5m in height, c) Flood light towers, d) Chimneys and similar structures :			
123031	With Red Oxide metal primer as per IS:123	Sqm	14.59	14.59
123032	With Zinc Chromate primer as per IS:104	Sqm	15.23	15.23
123033	With Synthetic Enamel paint	Sqm	29.03	29.03
123034	With Aluminium paint as per IS:2339	Sqm	23.79	23.79
123040	Painting two coat, any shade as directed of approved make and brand at a) Trusses exceeding 9m clear span, b) Staging with O.H. tank where staging is more than 2.5m in height, c) Flood light towers, d) Chimneys and similar structures :			
123041	With Red Oxide metal primer as per IS:123	Sqm	39.18	39.18
123042	With Zinc Chromate primer as per IS:104	Sqm	37.03	37.03
123043	With Synthetic Enamel paint	Sqm	51.10	51.10
123044	With Aluminium paint as per IS:2339	Sqm	41.94	41.94

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
123050	Painting (any shade as directed) with synthetic enamel paint of approved make and brand) telegraph OHE mast number plate including lettering complete (single plate)	Sqm	74.14	74.14
123060	Painting (any shade as directed) with synthetic enamel paint of approved make and brand telegraph OHE mast number plate including lettering complete (double plate)	Sqm	87.30	87.30
123070	Painting fire buckets with Synthetic Enamel paint two coats. (Inside and outside complete)	Each	50.06	50.06
123080	Painting human figures on latrine walls with Synthetic Enamel paint two coats, including the background complete	Each	38.07	38.07
123090	Painting line clear apparatus with Synthetic Enamel paint two coats	Each	186.76	186.76
123100	Painting Station Name boards (both sides) including lettering on both sides two coats of synthetic enamel paint to give an even shade			
123101	Board area more than 2 sqm	Each	178.16	178.16
123102	Board area upto 2 sqm	Each	148.29	148.29
123110	Painting and lettering gradient posts, km posts, curve plates, boundary pillars/marks etc two coats (both sides) along the railway tracks	Each	100.99	100.99
	VARNISHING AND POLISHING			
124010	Varnishing with varnish of approved brand and manufacture			
124011	On new work - two or more coats of glue sizing with copal varnish over an under coat of flatting varnish	Sqm	76.96	76.96
124012	On old work - one or more coats with copal varnish	Sqm	30.91	30.91
124013	On new work two or more coats glue sizing with spar varnish or an under coat of flatting varnish	Sqm	75.37	75.37
124014	On old work one or more coats with spar varnish	Sqm	30.41	30.41
124020	French spirit polishing			
124021	Two or more coats on new work including a coat of wood filler	Sqm	125.07	125.07
124022	One or more coats on old work	Sqm	63.57	63.57
124030	Polishing on wood work with ready made wax polish of approved brand and manufacture :			
124031	New work (two or more coats)	Sqm	51.46	51.46
124032	Old work (one or more coats)	Sqm	26.07	26.07
124040	Melamine polishing on wood work (one or more coats)	Sqm	79.69	57.04
124050	Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work	Sqm	30.12	30.12
124060	Oiling two coats with raw linseed oil	Sqm	27.59	27.59
124070	Oiling one coat with raw linseed oil	Sqm	18.11	18.11
124080	Bees waxing on wood work with local made wax polish with proportion 2:1½:1:½ (2 bees wax : 1½ linseed oil : 1 turpentine oil : ½ varnish by weight)			
124081	Two or more coats on new work	Sqm	49.91	49.91
124082	One or more coat on old work	Sqm	25.66	25.66
	MISCELLANEOUS			

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
125010	Removing old paint with paint remover of approved manufacture. Note : Payment under these items shall be made only where complete removal of old paint or varnish is ordered to be done and area to be paid under this item shall be specified in advance in writing by Engineer in charge	Sqm	17.72	17.72
125020	Removing old paint with caustic soda solution. The rate includes cost of labour, consumables, brushes, tools and plants, ladders, scaffoldings, staging etc. (Including high or special slung scaffolding, if required as per site conditions)	Sqm	24.43	24.43
125030	Removing old paint with blow lamp. Note : Payment under these items shall be made only where complete removal of old paint or varnish is ordered to be done and area to be paid under complete removal of paint shall be specified in advance in writing by Engineer in charge	Sqm	37.19	37.19
125040	Cleaning and washing glasses / FRP sheets / Transparent sheets or like material in trusses, sky lights, north lights, ventilators of workshops and loco sheds or similar structures. (It will include both the sides and measurements will be for one side only)	Sqm	10.65	10.65
125050	Supplying, printing and fixing banner made of Flex Fibre Cloth with digital printing as per Railway's approved matter, colour, pattern etc. complete job	Sqm	98.73	98.73
	New Items To Be Added By Zonal Railway			
126010				
126020				
126030				
126040				
126050				
126060				
126070				
126080				
126090				

CHAPTER - 13 : WATER SUPPLY					
Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	PE-AL-PE COMPOSITE PRESSURE PIPES				
131010	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 1.0m spacing. This includes cost of cutting chases, where necessary, testing of joints complete as per direction of the Engineer-in-charge. Internal work - Exposed on wall				
131011	1216 (16mm OD) pipe	metre	162.90	162.90	
131012	1620 (20mm OD) pipe	metre	195.25	195.25	
131013	2025 (25mm OD) pipe	metre	241.74	241.74	
131014	2532 (32mm OD) pipe	metre	349.62	349.62	
131015	3240 (40mm OD) pipe	metre	466.13	466.13	
131016	4050 (50mm OD) pipe	metre	577.62	577.62	
131020	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 1.0m spacing. This includes cost of cutting chases, where necessary, testing of joints complete as per direction of the Engineer-in-charge, concealed work including cutting chases & making good the wall				
131021	1216 (16mm OD) pipe	metre	212.14	206.50	0.009
131022	1620 (20mm OD) pipe	metre	240.41	234.77	0.009
131023	2025 (25mm OD) pipe	metre	282.81	277.17	0.009
131024	2532 (32mm OD) pipe	metre	383.31	377.67	0.009

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
131030	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)				
131031	1216 (16mm OD) pipe	metre	156.67	156.67	
131032	1620 (20mm OD) pipe	metre	184.94	184.94	
131033	2025 (25mm OD) pipe	metre	227.34	227.34	
131034	2532 (32mm OD) pipe	metre	327.84	327.84	
131035	3240 (40mm OD) pipe	metre	434.58	434.58	
131036	4050 (50mm OD) pipe	metre	546.07	546.07	
131040	Providing and fixing 3 layer PP-R (Poly Propylene Random copolymer) pipes, approved by CBRI and conforming to IS:15801; SDR 7.4 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 fixing pipe with clamps at 1.0m spacing. This includes testing of joints complete as per direction of Engineer-in-Charge. Internal work – exposed on wall				
131041	PN-16 Pipe, 16mm OD	metre	85.77	85.77	
131042	PN-16 Pipe, 20mm OD	metre	90.48	90.48	
131043	PN-16 Pipe, 25mm OD	metre	119.06	119.06	
131044	PN-16 Pipe, 32mm OD	metre	168.12	168.12	
131045	PN-16 Pipe, 40mm OD	metre	245.49	245.49	
131046	PN-16 Pipe, 50mm OD	metre	341.72	341.72	
131050	Providing and fixing 3 layer PP-R (Poly Propylene Random copolymer) pipes, approved by CBRI and conforming to IS:15801; SDR 7.4 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 fixing the pipe with clamps at 1.00m spacing in. This includes 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.				
131051	PN-16 Pipe, 16mm OD	metre	135.01	129.37	0.009
131052	PN-16 Pipe, 20mm OD	metre	135.63	129.99	0.009
131053	PN-16 Pipe, 25mm OD	metre	160.12	154.48	0.009
131054	PN-16 Pipe, 32mm OD	metre	201.81	196.17	0.009

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
131060	Providing and fixing 3 layer PP-R (Poly Propylene Random copolymer) pipes, approved by CBRI and conforming to IS:15801; UV stabilized & anti-microbial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded polypropylene random fittings including trenching, refilling & testing of joints complete as per direction of Engineer-in-Charge : External Work				
131061	PN-16 Pipe, 16mm OD (SDR-7.4)	metre	79.54	79.54	
131062	PN-16 Pipe, 20mm OD (SDR-7.4)	metre	80.16	80.16	
131063	PN-16 Pipe, 25mm OD (SDR-7.4)	metre	107.89	107.89	
131064	PN-16 Pipe, 32mm OD (SDR-7.4)	metre	149.58	149.58	
131065	PN-16 Pipe, 40mm OD (SDR-7.4)	metre	213.95	213.95	
131066	PN-16 Pipe, 50mm OD (SDR-7.4)	metre	310.18	310.18	
131067	PN-16 Pipe, 63mm OD (SDR-7.4)	metre	474.00	474.00	
131068	PN-16 Pipe, 75mm OD (SDR-7.4)	metre	653.62	653.62	
131069	PN-16 Pipe, 90mm OD (SDR-7.4)	metre	927.85	927.85	
131070	Providing and fixing 3 layer PP-R (Poly Propylene Random copolymer) designated as PN-10 pipes, approved by CBRI and conforming to IS:15801; UV stabilized & anti-microbial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded polypropylene random fittings including trenching, refilling & testing of joints complete as per direction of Engineer-in-Charge : External work (higher dia.)				
131071	PN-10 Pipe, 110mm OD (SDR-11)	metre	969.79	969.79	
131072	PN-10 Pipe, 160mm OD (SDR-11)	metre	3170.21	3170.21	
131080	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 1.0m 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				
131081	15mm nominal outer dia. Pipes	metre	98.60	98.60	
131082	20mm nominal outer dia. Pipes	metre	113.12	113.12	
131083	25mm nominal outer dia. Pipes	metre	134.17	134.17	
131084	32mm nominal outer dia. Pipes	metre	183.31	183.31	
131085	40mm nominal outer dia. Pipes	metre	245.10	245.10	
131086	50mm nominal outer dia. Pipes	metre	354.63	354.63	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
131090	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 1.0m 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.				
131091	15mm nominal outer dia. Pipes	metre	143.76	138.12	0.009
131092	20mm nominal outer dia. Pipes	metre	154.19	148.55	0.009
131093	25mm nominal outer dia. Pipes	metre	175.24	169.60	0.009
131094	32mm nominal outer dia. Pipes	metre	217.00	211.36	0.009
131100	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 and testing of joints complete as per direction of Engineer-in-Charge : External work				
131101	15mm nominal outer dia. Pipes	metre	88.29	88.29	
131102	20mm nominal outer dia. Pipes	metre	98.72	98.72	
131103	25mm nominal outer dia. Pipes	metre	123.00	123.00	
131104	32mm nominal outer dia. Pipes	metre	164.77	164.77	
131105	40mm nominal outer dia. Pipes	metre	213.55	213.55	
131106	50mm nominal outer dia. Pipes	metre	323.09	323.09	
131107	62.5mm nominal outer dia. Pipes	metre	689.38	689.38	
131120	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) Large diameter 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 and testing of joints complete as per direction of Engineer-in-Charge : External work (higher dia.)				
131121	75mm nominal outer dia. Pipes	metre	880.49	880.49	
131122	100mm nominal outer dia. Pipes	metre	1246.80	1246.80	
131123	150mm nominal outer dia. Pipes	metre	1283.99	1283.99	
131130	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. Internal work – Exposed on wall				
131131	15mm dia. nominal bore	metre	143.10	143.10	
131132	20mm dia. nominal bore	metre	177.91	177.91	
131133	25mm dia. nominal bore	metre	251.79	251.79	
131134	32mm dia. nominal bore	metre	305.75	305.75	
131135	40mm dia. nominal bore	metre	362.29	362.29	
131136	50mm dia. nominal bore	metre	478.34	478.34	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
131140	Providing and fixing medium grade G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the wall etc. : Concealed pipe including painting with anti-corrosive bitumestic paint, cutting chase and making good the wall				
131141	15mm dia. nominal bore	metre	195.71	190.07	0.009
131142	20mm dia. nominal bore	metre	226.43	220.79	0.009
131143	25mm dia. nominal bore	metre	295.89	290.25	0.009
131144	32mm dia. nominal bore	metre	342.64	337.00	0.009
131150	Providing and fixing medium grade G.I. pipes complete with G.I. fittings including trenching and refilling etc. : External Work				
131151	15mm dia. nominal bore	metre	136.55	136.55	
131152	20mm dia. nominal bore	metre	167.28	167.28	
131153	25mm dia. nominal bore	metre	240.13	240.13	
131154	32mm dia. nominal bore	metre	286.88	286.88	
131155	40mm dia. nominal bore	metre	330.28	330.28	
131156	50mm dia. nominal bore	metre	430.46	430.46	
131157	65mm dia. nominal bore	metre	534.57	534.57	
131158	80mm dia. nominal bore	metre	674.82	674.82	
131159	100mm dia. nominal bore	metre	960.43	960.43	
131160	Making connection of medium grade G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				
131161	25mm to 40mm nominal bore	Each	234.09	234.09	
131162	50mm to 80mm nominal bore	Each	519.92	519.92	
131163	100mm to 150mm dia.	Each	872.88	872.88	
131170	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	185.60	185.60	
131180	Providing and fixing PP-R Gate Valve fusion welded, having thermal stability for hot & cold water supply and testing of joints complete as per direction of engineer in charge				
131181	25mm Gate Valve	Each	354.61	354.61	
131182	32mm Gate Valve	Each	639.17	639.17	
131183	40mm Gate Valve	Each	783.55	783.55	
131184	50mm Gate Valve	Each	1394.50	1394.50	
131185	63mm Gate Valve	Each	1477.72	1477.72	
131190	Providing and fixing PP-R Brass Ball Valve fusion welded, having thermal stability for hot & cold water supply and testing of joints complete as per direction of engineer in charge				
131191	20mm Ball Valve	Each	168.77	168.77	
131192	25mm Ball Valve	Each	241.53	241.53	
131193	32mm Ball Valve	Each	331.72	331.72	
131194	40mm Ball Valve	Each	491.60	491.60	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
131200	Providing and fixing PP-R Male adopter conforming to PN-25 rating with marking on each fitting, fusion welded, having thermal stability for hot & cold water supply and testing of joints complete as per direction of engineer in charge				
131201	20mm adopter for PPR-GI connection	Each	108.25	108.25	
131202	25mm adopter for PPR-GI connection	Each	150.83	150.83	
131203	32mm adopter for PPR-GI connection	Each	188.19	188.19	
131204	40mm adopter for PPR-GI connection	Each	229.95	229.95	
131205	50mm adopter for PPR-GI connection	Each	475.75	475.75	
131206	63mm adopter for PPR-GI connection	Each	760.04	760.04	
131207	75mm adopter for PPR-GI connection	Each	1246.58	1246.58	
131208	90mm adopter for PPR-GI connection	Each	2779.76	2779.76	
	BRASS & C P BRASS fittings				
132010	Providing & fixing brass bib cock of approved quality				
132011	15mm nominal bore	Each	264.89	264.89	
132012	20mm nominal bore	Each	335.02	335.02	
132013	25mm nominal bore	Each	346.82	346.82	
132020	Providing and fixing brass stop cock of approved quality				
132021	15mm nominal bore	Each	231.44	231.44	
132022	20mm nominal bore	Each	255.29	255.29	
132023	25mm nominal bore	Each	356.00	356.00	
132024	32mm nominal bore	Each	393.17	393.17	
132025	40mm nominal bore	Each	417.27	417.27	
132026	50mm nominal bore	Each	425.40	425.40	
132030	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)				
132031	25mm nominal bore	Each	448.22	448.22	
132032	32mm nominal bore	Each	630.53	630.53	
132033	40mm nominal bore	Each	780.03	780.03	
132034	50mm nominal bore	Each	1218.15	1218.15	
132035	65mm nominal bore	Each	1766.42	1766.42	
132036	80mm nominal bore	Each	2606.06	2606.06	
132037	100mm nominal bore	Each	4863.26	4863.26	
132040	Providing and fixing ball valve (brass) of approved quality complete high or low pressure with plastic floats complete :				
132041	15mm nominal bore	Each	196.56	196.56	
132042	20mm nominal bore	Each	294.67	294.67	
132043	25mm nominal bore	Each	413.31	413.31	
132044	32mm nominal bore	Each	633.30	633.30	
132045	40mm nominal bore	Each	951.92	951.92	
132046	50mm nominal bore	Each	1403.39	1403.39	
132050	Providing and fixing gun metal non-return valve of 25mm nominal bore approved quality (screwed end)				
132051	Horizontal	Each	300.03	300.03	
132052	Vertical	Each	300.03	300.03	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
132060	Providing and fixing gun metal non-return valve of 32mm nominal bore approved quality (screwed end)				
132061	Horizontal	Each	643.98	643.98	
132062	Vertical	Each	566.50	566.50	
132070	Providing and fixing gun metal non-return valve of 40mm nominal bore approved quality (screwed end)				
132071	Horizontal	Each	822.07	822.07	
132072	Vertical	Each	689.20	689.20	
132080	Providing and fixing gun metal non-return valve of 50mm nominal bore approved quality (screwed end)				
132081	Horizontal	Each	1029.15	1029.15	
132082	Vertical	Each	861.24	861.24	
132090	Providing and fixing gun metal non-return valve of 65mm nominal bore approved quality (screwed end)				
132091	Horizontal	Each	1506.76	1506.76	
132092	Vertical	Each	1270.40	1270.40	
132100	Providing and fixing gun metal non-return valve of 80mm nominal bore approved quality (screwed end)				
132101	Horizontal	Each	2044.36	2044.36	
132102	Vertical	Each	1783.46	1783.46	
132110	Providing and fixing gun metal non-return valve of 100mm nominal bore approved quality (screwed end)				
132111	Horizontal	Each	3161.60	3161.60	
132112	Vertical	Each	2570.86	2570.86	
132120	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main				
132121	15mm nominal bore	Each	171.09	171.09	
132122	20mm nominal bore	Each	230.20	230.20	
132123	25mm nominal bore	Each	280.87	280.87	
132124	32mm nominal bore	Each	280.50	280.50	
132125	40mm nominal bore	Each	383.00	383.00	
132126	50mm nominal bore	Each	484.64	484.64	
132130	Providing and fixing unplasticised PVC connection pipe with brass unions : 30cm length				
132131	15mm nominal bore	Each	34.98	34.98	
132132	20mm nominal bore	Each	44.28	44.28	
132140	Providing and fixing unplasticised PVC connection pipe with brass unions : 45cm length				
132141	15mm nominal bore	Each	49.04	49.04	
132142	20mm nominal bore	Each	58.21	58.21	
132150	Providing and fixing CP Copper connection pipe with brass unions 30cm length				
132151	15mm nominal bore	Each	118.76	118.76	
132152	20mm nominal bore	Each	190.49	190.49	
132160	Providing and fixing CP Copper connection pipe with brass unions 45 cm length				
132161	15mm nominal bore	Each	152.21	152.21	
132162	20mm nominal bore	Each	242.11	242.11	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
132170	Providing and fixing C.P. brass shower rose with 15mm or 20mm inlet :				
132171	100mm diameter	Each	231.91	231.91	
132172	150mm diameter	Each	349.03	349.03	
132180	Providing and fixing C.P. brass bib cock, 15mm nominal bore of approved quality conforming to IS:8931	Each	220.16	220.16	
132190	Providing and fixing C.P. brass long nose bib cock, 15mm nominal bore, of approved quality conforming to IS standards and weighing not less than 810 gm	Each	262.09	262.09	
132200	Providing and fixing C.P. brass long body bib cock, 15mm nominal bore, of approved quality conforming to IS standards and weighing not less than 690 gm	Each	302.57	302.57	
132210	Providing and fixing C.P. brass stop cock, 15mm nominal bore, (concealed) of standard design and of approved make conforming to IS:8931	Each	379.31	379.31	
132220	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931	Each	261.28	261.28	
132230	Supplying and fixing brass chromium plated (two in one) type wall mixer having either fixed type over head shower or telephonic shower as approved by Engineer In-charge including all components like adjustable legs, wall flange, rigid tube or flexible pipe etc. complete	Each	1764.90	1764.90	
132240	Supplying and fixing brass chromium plated (three-in-one) type wall mixer having fixed type over head shower and also having flexible type telephonic shower including all components like adjustable legs, rigid tube, flexible pipe etc. complete	Each	2496.73	2496.73	
132250	Supplying and fixing brass chromium plated (two in one) type wall mixer SINGLE LEVER HOT AND COLD WATER MIXER having either fixed type over head shower or telephonic shower as approved by Engineer In-charge including all components like adjustable legs, wall flange, rigid tube or flexible pipe etc. complete	Each	2423.53	2423.53	0.000
	C. I. / DUCTILE IRON PIPES AND SPECIALS				
133010	Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe)	quintal	80.35	80.35	0.000
133020	Laying in position S&S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (excluding cost of specials)	quintal	149.10	149.10	0.000
133030	Providing & laying S&S C.I. standard specials, e.g. tees, bends, collars, tapers, caps etc. (Heavy class)				
133031	Upto 300mm dia.	quintal	6310.54	6310.54	0.000
133032	Over 300mm dia.	quintal	6310.54	6310.54	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133040	Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc. suitable for flanged jointing as per IS:1538 :				
133041	Upto 300mm dia.	quintal	6310.54	6310.54	
133042	Over 300mm dia.	quintal	6312.31	6312.31	
133050	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS:1536 : upto 300mm dia.				
133051	80mm dia. pipe.	metre	1101.45	1101.45	
133052	100mm dia. pipe	metre	1285.62	1285.62	
133053	125mm dia. pipe	metre	1713.68	1713.68	
133054	150mm dia. pipe	metre	2081.66	2081.66	
133055	200mm dia. pipe	metre	3061.41	3061.41	
133056	250mm dia. pipe	metre	4163.29	4163.29	
133057	300mm dia. pipe	metre	5326.78	5326.78	
133060	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS:1536 : above 300 mm dia.				
133061	350mm dia. pipe	metre	6735.63	6735.63	
133062	400mm dia. pipe	metre	8206.45	8206.45	
133063	450mm dia. pipe	metre	9800.26	9800.26	
133064	500mm dia. pipe	metre	12070.21	12070.21	
133065	600mm dia. pipe	metre	16088.36	16088.36	
133070	Providing and laying S&S centrifugally cast (spun) iron pipes (Class A) conforming to IS:1536 :				
133071	80mm dia. pipe	metre	1161.85	1161.85	
133072	100mm dia. pipe	metre	1480.98	1480.98	
133073	125mm dia. pipe	metre	1897.44	1897.44	
133074	150mm dia. pipe	metre	2314.46	2314.46	
133075	200mm dia. pipe	metre	3307.50	3307.50	
133076	250mm dia. pipe	metre	4531.95	4531.95	
133077	300mm dia. pipe	metre	5878.64	5878.64	
133080	Providing and laying S&S Centrifugally Cast (Spun) Ductile Iron Pipes conforming to IS:8329 of Class K-7 upto 500mm dia.				
133081	100mm dia. Ductile Iron CLass K - 7 pipes	metre	1001.00	1001.00	
133082	150mm dia. Ductile Iron CLass K - 7 pipes	metre	1465.48	1465.48	
133083	200mm dia. Ductile Iron CLass K - 7 pipes	metre	1897.86	1897.86	
133084	250mm dia. Ductile Iron CLass K - 7 pipes	metre	2502.65	2502.65	
133085	300mm dia. Ductile Iron CLass K - 7 pipes	metre	3173.24	3173.24	
133086	350mm dia. Ductile Iron CLass K - 7 pipes	metre	3941.45	3941.45	
133087	400mm dia. Ductile Iron CLass K - 7 pipes	metre	4747.91	4747.91	
133088	450mm dia. Ductile Iron CLass K - 7 pipes	metre	5611.38	5611.38	
133089	500mm dia. Ductile Iron CLass K - 7 pipes	metre	6530.73	6530.73	
133090	Providing and laying S&S Centrifugally Cast (Spun) Ductile Iron Pipes conforming to IS:8329 of Class K-7 above 500mm dia.				
133091	600mm dia. Ductile Iron CLass K - 7 pipes	metre	8617.47	8617.47	
133092	700mm dia. Ductile Iron CLass K - 7 pipes	metre	11591.39	11591.39	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133093	800mm dia. Ductile Iron CLass K – 7 pipes	metre	15669.60	15669.60	
133094	900mm dia. Ductile Iron CLass K - 7 pipes	metre	18640.49	18640.49	
133095	1000mm dia. Ductile Iron CLass K - 7 pipes	metre	21884.57	21884.57	
133100	Providing and laying S&S Centrifugally Cast (Spun) Ductile Iron Pipes conforming to IS:8329 of Class K-9 upto 500mm dia.				
133101	100mm dia. Ductile Iron CLass K - 9 pipes	metre	1223.58	1223.58	
133102	150mm dia. Ductile Iron CLass K - 9 pipes	metre	1835.30	1835.30	
133103	200mm dia. Ductile Iron CLass K - 9 pipes	metre	2327.83	2327.83	
133104	250mm dia. Ductile Iron CLass K - 9 pipes	metre	3184.47	3184.47	
133105	300mm dia. Ductile Iron CLass K - 9 pipes	metre	3649.25	3649.25	
133106	350mm dia. Ductile Iron CLass K - 9 pipes	metre	4717.91	4717.91	
133107	400mm dia. Ductile Iron CLass K - 9 pipes	metre	5882.51	5882.51	
133108	450mm dia. Ductile Iron CLass K - 9 pipes	metre	6628.32	6628.32	
133109	500mm dia. Ductile Iron CLass K - 9 pipes	metre	7634.04	7634.04	
133110	Providing and laying S&S Centrifugally Cast (Spun) Ductile Iron Pipes conforming to IS:8329 of Class K-9 above 500mm dia.				
133111	600mm dia. Ductile Iron CLass K - 9 pipes	metre	10128.36	10128.36	
133112	700mm dia. Ductile Iron CLass K - 9 pipes	metre	12893.22	12893.22	
133113	750mm dia. Ductile Iron CLass K - 9 pipes	metre	14555.80	14555.80	
133114	800mm dia. Ductile Iron CLass K - 9 pipes	metre	16404.49	16404.49	
133115	900mm dia. Ductile Iron CLass K - 9 pipes	metre	19667.98	19667.98	
133116	1000mm dia. Ductile Iron CLass K - 9 pipes	metre	23164.69	23164.69	
133120	Providing and laying Double Flanged (Screwed/Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K-9 conforming to IS:8329 upto 500mm dia.				
133121	100mm dia. Ductile Iron Double Flanged	metre	1912.81	1912.81	
133122	150mm dia. Ductile Iron Double Flanged	metre	2235.29	2235.29	
133123	200mm dia. Ductile Iron Double Flanged	metre	3619.39	3619.39	
133124	250mm dia. Ductile Iron Double Flanged	metre	4851.55	4851.55	
133125	300mm dia. Ductile Iron Double Flanged	metre	6119.70	6119.70	
133126	350mm dia. Ductile Iron Double Flanged	metre	8005.32	8005.32	
133127	400mm dia. Ductile Iron Double Flanged	metre	10102.59	10102.59	
133128	450mm dia. Ductile Iron Double Flanged	metre	12234.93	12234.93	
133129	500mm dia. Ductile Iron Double Flanged	metre	14386.46	14386.46	
133130	Providing and laying Double Flanged (Screwed/Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K-9 conforming to IS:8329 above 500mm dia.				
133131	600mm dia. Ductile Iron Double Flanged	metre	18680.92	18680.92	
133132	700mm dia. Ductile Iron Double Flanged	metre	24217.65	24217.65	
133140	Providing lead caulked joints to spun iron or C.I./DI pipes and specials including testing of joints but excluding the cost of pig lead upto 400mm dia.				
133141	80mm dia. pipe	Each	116.14	118.35	
133142	100mm dia. pipe	Each	122.73	125.98	
133143	125mm dia. pipe	Each	179.85	184.15	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133144	150mm dia. pipe	Each	183.44	188.32	
133145	200mm dia. pipe	Each	242.80	249.31	
133146	250mm dia. pipe	Each	306.75	314.30	
133147	300mm dia. pipe	Each	371.76	380.47	
133148	350mm dia. pipe	Each	381.26	392.06	
133149	400mm dia. pipe	Each	495.74	508.75	
133150	Providing lead caulked joints to spun iron or C.I./D.I. pipes and specials including testing of joints, but excluding the cost of pig lead above 400mm dia.				
133151	450mm dia. pipe	Each	555.28	569.33	
133152	500mm dia. pipe	Each	587.63	602.85	
133153	600mm dia. pipe	Each	789.41	808.92	
133160	Supplying pig lead at site of work	quintal	18124.89	18124.89	
133170	Providing flanged joints to double flanged C.I./D.I. pipes and specials including fittings, packings & testing of joints upto 400mm dia.				
133171	80mm dia. pipe	Each	94.75	94.75	
133172	100mm dia. pipe	Each	166.46	166.46	
133173	125mm dia. pipe	Each	168.78	168.78	
133174	150mm dia. pipe	Each	244.94	244.94	
133175	200mm dia. pipe	Each	255.77	255.77	
133176	250mm dia. pipe	Each	378.08	378.08	
133177	300mm dia. pipe	Each	383.89	383.89	
133178	350mm dia. pipe	Each	516.89	516.89	
133179	400mm dia. pipe	Each	774.27	774.27	
133180	Providing flanged joints to double flanged C.I./D.I. pipes and specials including fittings, packings & testing of joints above 400mm dia.				
133181	450mm dia. pipe	Each	955.56	955.56	
133182	500mm dia. pipe	Each	989.44	989.44	
133183	600mm dia. pipe	Each	1405.04	1405.04	
	C.I. SLUICE VALVES AND FIXTURES				
133190	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 80mm dia. (the tail pieces, if required will be paid separately)				
133191	Class I	Each	3662.87	3662.87	
133192	Class II	Each	4234.99	4234.99	
133200	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 100mm dia. (the tail pieces, if required will be paid separately)				
133201	Class I	Each	4750.03	4750.03	
133202	Class II	Each	5298.23	5298.23	
133210	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 125mm dia. (the tail pieces, if required will be paid separately)				

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133211	Class I	Each	5860.39	5860.39	
133212	Class II	Each	6482.82	6482.82	
133220	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 150mm dia. (the tail pieces, if required will be paid separately)				
133221	Class I	Each	7124.92	7124.92	0.000
133222	Class II	Each	8289.51	8289.51	0.000
133230	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 200mm dia. (the tail pieces, if required will be paid separately)				
133231	Class I	Each	12313.23	12313.23	
133232	Class II	Each	13519.51	13519.51	
133240	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 250mm dia. (the tail pieces, if required will be paid separately)				
133241	Class I	Each	18456.78	18456.78	
133242	Class II	Each	20334.40	20334.40	
133250	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 300mm dia. (the tail pieces, if required will be paid separately)				
133251	Class I	Each	23327.13	23327.13	
133252	Class II	Each	25628.31	25628.31	
	AIR VALVE AND WATER METER (BULK TYPE)				
133260	Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (tail pieces, tapers etc., if required will be paid separately)				
133261	50mm dia.	Each	1496.10	1496.10	
133262	80mm dia.	Each	2018.78	2018.78	
133263	100mm dia.	Each	2150.07	2150.07	
133270	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. (Tail pieces, if required will be paid separately)				
133271	80mm dia. nominal bore	Each	6093.41	6093.41	
133272	100mm dia. nominal bore	Each	8032.93	8032.93	
133273	150mm dia. nominal bore	Each	13747.25	13747.25	
133274	200mm dia. nominal bore	Each	19627.51	19627.51	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133280	Supplying, installing & fixing in position including field testing domestic type water meter, horizontal inferential, single jet or multi jet, dry dial suitable upto 500°C temperature, duly sealed against tampering, complete with couplings on both ends, manufactured by approved firms, conforming to Class-B as per IS:779 with manufacturer's test certificate, guarantee certificate including cost of material & labour. Rate includes obtaining Municipal approval as per local Municipal rules, if any.				
133281	15mm bore	Each	1148.98	1148.98	
133282	20mm bore	Each	1493.81	1493.81	
133283	25mm bore	Each	1989.13	1989.13	
133284	40mm bore	Each	4850.89	4850.89	
133290	Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS:2373				
133291	80mm dia.	Each	2439.33	2439.33	
133292	100mm dia.	Each	3805.80	3805.80	
133293	150mm dia.	Each	6713.30	6713.30	
133294	200mm dia.	Each	10913.93	10913.93	
133300	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				
133301	Upto 300mm dia.	Quintal	6315.19	6315.19	
133302	Above 300mm dia.	Quintal	6315.19	6315.19	
133310	Providing and laying S&S C.I. Standard specials suitable for mechanical jointing as per IS:13382				
133311	Upto 300mm dia.	Quintal	5962.09	5962.09	
133312	Above 300mm dia.	Quintal	5962.09	5962.09	
133320	Providing and laying D.I. Specials of Class K-12 suitable for push-on jointing as per IS:9523				
133321	Upto 600mm dia.	Quintal	13511.84	13511.84	
133322	Above 600mm dia.	Quintal	14092.59	14092.59	
133330	Providing and laying D.I. Specials of Class K-12 suitable for mechanical jointing as per IS:9523				
133331	Upto 600mm dia.	Quintal	12887.53	12887.53	
133332	Above 600mm dia.	Quintal	12887.53	12887.53	
133340	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket				
133341	100mm dia. pipes	Each	45.83	45.83	
133342	150mm dia. pipes	Each	66.45	66.45	
133343	200mm dia. pipes	Each	100.68	100.68	
133344	250mm dia. pipes	Each	132.49	132.49	
133345	300mm dia. pipes	Each	166.12	166.12	
133346	350mm dia. pipes	Each	187.26	187.26	
133347	400mm dia. pipes	Each	261.76	261.76	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133348	450mm dia. pipes	Each	295.99	295.99	
133349	500mm dia. pipes	Each	337.26	337.26	
133350	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket - above 500mm dia.				
133351	600mm dia. pipes	Each	432.90	432.90	
133352	650mm dia. pipes	Each	746.98	746.98	
133353	700mm dia. pipes	Each	843.62	843.62	
133354	800mm dia. pipes	Each	956.37	956.37	
133355	900mm dia. pipes	Each	1224.55	1224.55	
133356	1000mm dia. pipes	Each	1357.03	1357.03	
133360	Providing and laying Double Flanged Pipe (screwed/welded) Centrifugally (Spun) Cast Iron, Class B (IS:1536)				
133361	100mm dia. C.I. Double Flanged Pipe	metre	1825.32	1825.32	
133362	150mm dia. C.I. Double Flanged Pipe	metre	2882.51	2882.51	
133363	200mm dia. C.I. Double Flanged Pipe	metre	4210.15	4210.15	
133364	250mm dia. C.I. Double Flanged Pipe	metre	5631.65	5631.65	
133365	300mm dia. C.I. Double Flanged Pipe	metre	7266.47	7266.47	
133366	350mm dia. C.I. Double Flanged Pipe	metre	9245.47	9245.47	
133367	400mm dia. C.I. Double Flanged Pipe	metre	11344.09	11344.09	
133368	450mm dia. C.I. Double Flanged Pipe	metre	13709.77	13709.77	
133370	Providing and laying Double Flanged Pipe (screwed/welded) Centrifugally (Spun) Cast Iron, Class B (IS:1536) above 500mm dia.				
133371	500mm dia. C.I. Double Flanged Pipe	metre	15863.66	15863.66	
133372	600mm dia. C.I. Double Flanged Pipe	metre	21224.38	21224.38	
133380	Disinfecting C.I./G.I./D.I./PVC water mains by flushing with water containing bleaching powder at 0.5 gm/litre of water, cleaning the same with fresh water; operation to be repeated three times including getting the sample of water from disinfected main tested in approved laboratory upto 400mm dia.				
133381	80mm diameter C.I. pipe	100 m	431.95	431.95	
133382	100mm diameter C.I. pipe	100 m	571.68	571.68	
133383	125mm diameter C.I. pipe	100 m	721.83	721.83	
133384	150mm diameter C.I. pipe	100 m	879.33	879.33	
133385	200mm diameter C.I. pipe	100 m	1200.07	1200.07	
133386	250mm diameter C.I. pipe	100 m	1546.14	1546.14	
133387	300mm diameter C.I. pipe	100 m	1777.54	1777.54	
133388	350mm diameter C.I. pipe	100 m	2028.14	2028.14	
133389	400mm diameter C.I. pipe	100 m	2304.08	2304.08	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133390	Disinfecting C.I./G.I./D.I./PVC water mains by flushing with water containing bleaching powder at 0.5 gm/ litre of water, cleaning the same with fresh water; operation to be repeated three times including getting the sample of water from disinfected main tested in approved laboratory above 400mm dia.				
133391	450mm diameter C.I. pipe	100 m	2594.31	2594.31	
133392	500mm diameter C.I. pipe	100 m	2908.28	2908.28	
133393	600mm diameter C.I. pipe	100 m	3581.71	3581.71	
133400	Extra for every operation on item no. 133380 disinfecting the C.I. main by flushing with water containing bleaching powder at 0.5 gm/litre of water and cleaning the same with fresh water, including getting the samples of water tested in the approved laboratory : upto 400mm dia.				
133401	80mm diameter C.I. pipe	100 m	158.39	158.39	
133402	100mm diameter C.I. pipe	100 m	194.71	194.71	
133403	125mm diameter C.I. pipe	100 m	240.76	240.76	
133404	150mm diameter C.I. pipe	100 m	285.54	285.54	
133405	200mm diameter C.I. pipe	100 m	440.79	440.79	
133406	250mm diameter C.I. pipe	100 m	522.20	522.20	
133407	300mm diameter C.I. pipe	100 m	602.96	602.96	
133408	350mm diameter C.I. pipe	100 m	723.41	723.41	
133409	400mm diameter C.I. pipe	100 m	849.10	849.10	
133410	Extra for every operation over item no. 133380 disinfecting the C.I. main by flushing with water containing bleaching powder at 0.5 gm/litre of water and cleaning the same with fresh water, including getting the samples of water tested in the approved laboratory : above 400mm dia.				
133411	450mm diameter C.I. pipe	100 m	983.06	983.06	0.000
133412	500mm diameter C.I. pipe	100 m	1067.15	1067.15	
133413	600mm diameter C.I. pipe	100 m	1413.08	1413.08	
133420	Dismantling old CI/GI/WI/DI 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 upto 50m : upto 400mm dia.				
133421	80mm diameter C.I. pipe	metre	83.31	84.39	
133422	100mm diameter C.I. pipe	metre	88.79	90.13	
133423	125mm diameter C.I. pipe	metre	93.97	95.58	
133424	150mm diameter C.I. pipe	metre	98.03	99.92	
133425	200mm diameter C.I. pipe	metre	108.77	111.19	
133426	250mm diameter C.I. pipe	metre	119.62	122.58	
133427	300mm diameter C.I. pipe	metre	129.37	132.60	
133428	350mm diameter C.I. pipe	metre	138.51	142.01	
133429	400mm diameter C.I. pipe	metre	147.44	151.21	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
133430	Dismantling old CI/GI/WI/DI 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 upto 50m : above 400mm dia.				
133431	450mm diameter C.I. pipe	metre	174.73	178.77	
133432	500mm diameter C.I. pipe	metre	185.86	190.16	
133433	600mm diameter C.I. pipe	metre	206.82	211.67	
133440	Labour for cutting C.I. pipe with steel saw for each cut : upto 400mm dia.				
133441	80mm diameter C.I. pipe	Each	33.68	33.68	
133442	100mm diameter C.I. pipe	Each	45.26	45.26	
133443	125mm diameter C.I. pipe	Each	63.01	63.01	
133444	150mm diameter C.I. pipe	Each	84.06	84.06	
133445	200mm diameter C.I. pipe	Each	113.54	113.54	
133446	250mm diameter C.I. pipe	Each	140.90	140.90	
133447	300mm diameter C.I. pipe	Each	169.32	169.32	
133448	350mm diameter C.I. pipe	Each	196.69	196.69	
133449	400mm diameter C.I. pipe	Each	224.96	224.96	
133450	Labour for cutting C.I. pipe with steel saw for each cut above 400mm dia.				
133451	450mm diameter C.I. pipe	Each	252.48	252.48	
133452	500mm diameter C.I. pipe	Each	281.80	281.80	
133453	600mm diameter C.I. pipe	Each	334.42	334.42	
133460	Disconnecting and taking out sluice valves, water hydrants etc. in CI pipes	Each	70.62	70.62	
133470	Cutting of GI, WI in true edge with steel saw; (if not already covered in the item) for each cut				
133471	Upto 40mm dia.	Each	18.05	18.05	
133472	Above 40mm and upto 80mm dia.	Each	34.89	34.89	
133473	Above 80mm and upto 125mm dia.	Each	55.98	55.98	
133474	Above 125mm and upto 200mm dia.	Each	93.10	93.10	
133475	Above 200mm and upto 250mm dia.	Each	113.36	113.36	
133476	Above 250mm and upto 300mm dia.	Each	141.99	141.99	
133480	Rethreading/reconditioning ends of old GI pipes	Each	13.68	13.68	
	P.T.M.T. FITTINGS				
134010	Providing and fixing PTMT bib cock of approved quality and colour				
134011	15mm nominal bore, 86mm long, weighing not less than 88 gm	Each	106.93	106.93	
134012	15mm nominal bore, 90mm long, weighing not less than 93 gm	Each	120.87	120.87	
134013	15mm nominal bore, 122mm long, weighing not less than 99 gm	Each	143.51	143.51	
134014	15mm nominal bore, 165mm long, weighing not less than 110 gm	Each	160.94	160.94	
134020	Providing and fixing PTMT stop cock of approved quality and colour				

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
134021	15mm nominal bore, 86mm long, weighing not less than 88 gm	Each	106.93	106.93	
134022	20mm nominal bore, 89mm long, weighing not less than 88 gm	Each	125.22	125.22	
134023	Concealed stop cock, 15mm nominal bore, 108mm long, weighing not less than 108 gm	Each	161.52	161.52	
134030	Providing and fixing PTMT pillar cock of approved quality and colour				
134031	15mm nominal bore, 107mm long, weighing not less than 110 gm	Each	145.18	145.18	
134032	15mm nominal size, 125mm long foam flow, weighing not less than 120 gm	Each	145.18	145.18	
134040	Providing and fixing PTMT push cock of approved quality and colour				
134041	15mm nominal bore, 98mm long, weighing not less than 75 gm	Each	95.31	95.31	
134042	15mm nominal size, 80mm long, weighing not less than 46 gm	Each	102.28	102.28	
134050	Providing and fixing PTMT grating of approved quality and colour				
134051	Circular type 100mm nominal dia.	Each	30.97	30.97	
134052	Circular type 125mm nominal dia with 25mm waste hole	Each	37.50	37.50	
134053	Rectangular type with openable circular lid. - 150mm nominal size square, 100mm diameter of the inner hinged round grating	Each	81.49	81.49	
134060	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				
134061	15mm nominal bore, 105mm long, weighing not less than 138 gm	Each	157.48	157.48	
134062	20mm nominal bore, 120mm long, weighing not less than 198 gm	Each	225.23	225.23	
134063	25mm nominal bore, 152mm long, weighing not less than 440 gm	Each	364.12	364.12	0.000
134064	40mm nominal bore, 206mm long, weighing not less than 690 gm	Each	494.79	494.79	
134065	50mm nominal bore, 242mm long, weighing not less than 1240 gm	Each	1065.37	1065.37	
134070	Providing and fixing PTMT angle stop cock 15mm nominal bore, weighing not less than 85 gm	Each	130.16	130.16	
134080	Providing and fixing PTMT swiveling shower, 15mm nominal bore, weighing not less than 40 gm	Each	93.80	93.80	
134090	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 gm	Each	114.13	114.13	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
134100	Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour				
134101	15mm nominal bore with 30cm length	Each	43.81	43.81	
134102	15mm nominal bore. with 45cm length	Each	48.81	48.81	
134110	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour				
134111	15mm nominal bore, weighing not less than 32gm	Each	28.28	28.28	
134112	20mm nominal bore, weighing not less than 40gm	Each	50.39	50.39	
134113	25mm nominal bore, weighing not less than 62gm	Each	73.62	73.62	
	HYDRANTS				
135010	Providing and fixing cast iron water hydrant one way for carriage washing lines including cost of jointing material complete as per approved drawing {Drg No. 8373/M.(NR) used for analysis}	Each	1192.92	1192.92	
135020	Providing and fixing cast iron water hydrant two way for carriage washing lines including cost of jointing material complete as per approved drawing {Engg drawing no 250. (NR), used for analysis}	Each	1425.57	1425.57	
135030	Providing and fixing cast iron spindle fire hydrant 65mm outlet, complete including cost of jointing material complete as (bolts, nuts and rubber insertions etc.)	Each	16965.74	16965.74	
135040	Supplying, fitting & fixing in position C.I. Fire Hydrant stand post type ISI marked (IS:908) containing stand post column having single spout (outlet), duck foot bend, inlet 80mm dia. with one sluice valve, surface box etc. complete in all respect	Each	19679.61	19679.61	
	MANHOLES				
136010	Constructing masonry chamber 30x30x50cm inside with 7.5 class designation FPS bricks work in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock with C.I. surface box 100x100x75mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) 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	Each	862.23	689.04	0.260

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
136020	Constructing masonry Chamber 60x60x75 cm inside with 7.5 class designation brick work with FPS Bricks in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter and 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) 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	Each	4552.22	3633.98	1.440
136030	Constructing masonry Chamber 90x90x100 cm, inside with 7.5 class designation brick work with FPS Bricks in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160mm bottom diameter and 180mm 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) 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) 12mm thick finished with a floating coat of neat cement complete as per standard design.	Each	7937.65	6351.29	2.480
136040	Constructing masonry Chamber 120x120x100 cm, inside with 7.5 class designation brick work with FPS Bricks in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160mm bottom diameter and 180mm 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) 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.	Each	10359.62	8249.18	3.500

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
136050	Constructing masonry Chamber 60x60x75 cm, inside with 7.5 class designation brick work with FPS Bricks 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) 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) 12mm thick finished with a floating coat of neat cement complete as per standard design.	Each	4413.86	3550.56	1.300
136060	Constructing masonry Chamber 60x45x50 cm inside with 7.5 class designation brick work with FPS Bricks in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate-20mm nominal size) 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) 12mm thick ... contd. ---	Each	3416.58	2694.07	1.340
	... contd. --- finished with a floating coat of neat cement complete as per standard design.				
136070	Providing and filling sand of grading zone IV or coarser grade all round the G.I./C.I./D.I. pipes in external work-up to 100mm dia.				
136071	15mm dia. Pipe	metre	93.26	27.57	
136072	20mm dia. Pipe	metre	94.52	27.95	
136073	25mm dia. Pipe	metre	97.04	28.69	
136074	32mm dia. Pipe	metre	99.56	29.44	
136075	40mm dia. Pipe	metre	100.82	29.81	
136076	50mm dia. Pipe	metre	104.60	30.93	
136077	65mm dia. Pipe	metre	165.09	48.81	
136078	80mm dia. Pipe	metre	170.13	50.30	
136079	100mm dia. Pipe	metre	180.22	53.28	
136080	Providing and filling sand of grading zone IV or coarser grade all round the G.I./C.I./D.I. pipes in external work above 100mm dia.				
136081	150mm dia. pipe	metre	268.43	79.37	
136082	200mm dia. pipe	metre	288.60	85.33	
136083	250mm dia. pipe	metre	301.20	89.05	
136084	300mm dia. pipe	metre	311.28	92.03	
136085	450mm dia. pipe	metre	414.62	122.59	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
136086	600mm dia. pipe	metre	611.22	180.72	
136090	Boring with 100mm diameter casing pipe for hand pump/tube well in all soils except ordinary hard rocks requiring blasting including removing the casing pipe after the hand pipe/tube well is lowered and tested				
136091	Upto 6m depth	metre	214.69	185.65	
136092	Beyond 6m and upto 12m depth	metre	253.42	217.41	
136093	Beyond 12m and upto 18m depth	metre	293.81	250.26	
136094	Beyond 18m and upto 30m depth	metre	415.45	360.28	
136100	Providing & placing in position filters of 40mm dia. G.I. pipe with brass strainer of approved quality	metre	513.91	513.91	
136110	Providing and fixing to filter and lowering to proper levels 40mm G.I. pipe for tube well including cleaning and priming the tube well	metre	283.38	283.38	
136120	Providing and placing in position hand pump of approved quality for 40mm diameter G.I. pipe complete with all accessories	Each	828.43	828.43	
136130	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (new work)				
136131	15mm nominal bore	Each	100.82	100.82	
136132	20mm nominal bore	Each	116.27	116.27	
136133	25mm nominal bore	Each	137.23	137.23	
136134	32mm nominal bore	Each	171.12	171.12	
136135	40mm nominal bore	Each	195.28	195.28	
136136	50mm nominal bore	Each	288.81	288.81	
136137	65mm nominal bore	Each	476.04	476.04	
136138	80 mm nominal bore	Each	639.12	639.12	
136140	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				
136141	15mm nominal bore	Each	216.57	216.57	
136142	20mm nominal bore	Each	232.02	232.02	
136143	25mm nominal bore	Each	252.99	252.99	
136144	32mm nominal bore	Each	286.88	286.88	
136145	40mm nominal bore	Each	311.04	311.04	
136146	50mm nominal bore	Each	446.65	446.65	
136147	65mm nominal bore	Each	633.89	633.89	
136148	80mm nominal bore	Each	796.96	796.96	
136150	Providing and placing on terrace/staging (at all heights) polyethylene water storage tank ISI: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	litre	7.21	7.21	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
136160	Cutting holes up to 30cmx30cm in walls including making good the same	Each	153.60	133.26	0.030
136170	Cutting holes up to 15cmx15cm in RCC 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 20mm nominal size) including finishing complete so as to make it leak proof	Each	111.48	108.80	0.010
136180	Making chases up to 7.5cmx7.5cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	metre	49.56	43.92	0.010
136190	Making hole up to 20cmx20cm and embedding pipes upto 150mm dia. in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate-20mm nominal size) including disposal of malba	Each	73.72	42.70	0.020
	MISCELLANEOUS				
137010	Supplying, fabricating and fixing M.S. flat angle iron pipe clamps, stays, etc. including drilling holes, welding (if any) including nuts and bolts etc. including all lifts	Kg	85.25	85.25	
137020	Supplying and jointing cast iron concussion relief (pressure) valves "Spring relief type", with gun metal fittings with casing lever complete in all respects as per specifications				
137021	80mm bore	Each	2437.73	2437.73	
137022	100mm bore	Each	3092.27	3092.27	
137030	Supplying and jointing expansion joint with cast iron spigot, socket and flanged, accurately machined mild steel guard bolts, Gland & socket duly brushed with gun metal etc. complete in all respects conforming to appropriate Indian Standard				
137031	80mm bore	Each	651.04	651.04	
137032	100mm bore	Each	851.74	851.74	
137033	150mm bore	Each	1264.74	1264.74	
137034	200mm bore	Each	1545.03	1545.03	
137035	250mm bore	Each	2115.69	2115.69	
137036	300mm bore	Each	2374.70	2374.70	
137037	350mm bore	Each	3080.91	3080.91	
137040	Supplying and jointing-in-position cast iron flanged, end foot valve with strainer (of cast iron/galvanized iron) swing type tested to withstand a pressure of 2 kg/cm ² complete in all respects, conforming to IS:4038				
137041	80mm size	Each	4362.10	4362.10	
137042	100mm size	Each	6805.59	6805.59	
137043	150mm size	Each	6898.02	6898.02	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
137050	Supplying and jointing in position cast iron flanged end foot valve with strainer, lift type, tested to withstand a pressure of 20 kg/cm ² , complete in all respects, conforming to IS:4038				
137051	150mm size	Each	6898.02	6898.02	
137052	200mm size	Each	12209.93	12209.93	
137060	Supplying and fixing on water tanks etc. slotted Water Indicator Board with M.S. Pulley ball bearing type phosphorus bronze twisted wire, wood float etc. complete in all respect and in metric units. The rate includes fixing at all heights				
137061	Upto 1.25m long	Each	2601.76	2601.76	
137062	More than 1.25m long	Each	3254.52	3254.52	
137070	Extra for supplying and fixing hand wheel in place of spindle cap. For Sluice valves. (If not covered by rates of original item)				
137071	For sluice valves from 50mm upto 80mm bore	Each	261.48	261.48	
137072	For sluice valves from 100mm and 125mm bore	Each	380.97	380.97	
137073	For sluice valves for 150mm bore	Each	494.80	494.80	
137074	For sluice valves of 200mm & 250mm bore	Each	504.09	504.09	
137075	For sluice valves of 300mm bore	Each	536.61	536.61	
137080	Supplying, fitting and fixing float valve of cistern complete with polythene ball as required including all lead for replacement work. This include all work for removing of existing float valve with connection, delivery of released materials to SE/Works store and fixing of screw, coupling, back nuts etc.				
137081	15mm dia. pipe	Each	259.89	259.89	
137082	20mm dia. pipe	Each	377.95	377.95	
137083	25mm dia. pipe	Each	575.23	575.23	
137090	Supplying, fitting and fixing polythene ball only as required for cistern including all lead for : 15mm dia float valve for replacement work. This includes removal of existing ball, if required and all works required for fitting & fixing ball.				
137091	15mm dia. pipe	Each	74.10	74.10	
137092	20mm dia. pipe	Each	85.37	85.37	
137093	25mm dia. pipe	Each	125.15	125.15	
137100	Supplying, laying, jointing, fitting and fixing in position R.C.C. spun pipes and collars class NP-2 conforming to IS:458 with cement sand mortar (1:3) on the cement concrete bed as required to maintain proper grade & alignment including cutting trenches and refilling the same with all lead. (Extra Payment of bed concrete to be made as provided)				
137101	150mm dia.	metre	449.51	449.51	0.006
137102	200mm dia.	metre	550.02	550.02	0.008
137103	250mm dia.	metre	676.82	676.82	0.009
137104	300mm dia.	metre	824.32	824.32	0.011

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
137105	400mm dia.	metre	1077.55	1077.55	0.017
137106	450mm dia.	metre	1165.51	1165.51	0.024
137107	500mm dia.	metre	1482.77	1482.77	0.026
137110	Cleaning thoroughly inside/outside of old C.I. Pipes and specials, removing rust, incrustations etc. and dipping in hot Angus Smith's solution. All materials shall be as per relevant I.S. Specifications.	Sqm	35.78	34.61	0.000
	RATES FOR LABOUR ONLY				
138010	Laying C.I. Pipes including i) Cutting pipes and drilling holes as and where required ii) Fitting up specials like collars, tees, valves, bends etc. as and where required iii) Lead upto 100m iv) Keeping pipes level or in prescribed grade, aligning pipes, caulking joints v) Refilling and ramming trench after the pipes have been tested to required pressure				
138011	400mm dia.	metre	426.95	426.95	
138012	350mm dia.	metre	370.95	370.95	
138013	300mm dia.	metre	336.89	336.89	
138014	250mm dia.	metre	296.01	296.01	
138015	200mm dia.	metre	254.90	254.90	
138016	150mm dia.	metre	215.94	215.94	
138017	125mm dia.	metre	192.14	192.14	
138018	100mm dia.	metre	166.49	166.49	
138019	80mm dia.	metre	143.21	143.21	
138020	Laying G.I. or polythene / CI / DI / Concrete or alike materials, pipes including -i) Fitting sockets, cutting, pipe threading and drilling holes as and where required. ii) Fitting up specials like tees, valves, bends, nipples, water meters etc. as and where required. iii) Lead upto 100mm iv) Keeping pipes level or in prescribed grade, aligning pipes, caulking joints etc. v) Refilling and ramming trench complete after the pipes have been tested to required pressure				
138021	15mm dia.	metre	74.23	74.23	
138022	20mm dia.	metre	76.48	76.48	
138023	25mm dia.	metre	78.60	78.60	
138024	32mm dia.	metre	80.28	80.28	
138025	40mm dia.	metre	93.79	93.79	
138026	50mm dia.	metre	104.95	104.95	
138027	65mm dia.	metre	123.73	123.73	
138028	80mm dia.	metre	137.78	137.78	
138029	100mm dia.	metre	152.95	152.95	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
138030	Laying G.I. or polythene/CI/DI/Concrete or alike materials, pipes including - i) Fitting sockets, cutting, pipe threading and drilling holes as and where required. ii) Fitting up specials like tees, valves, bends, nipples, water meters etc. as & where required, iii) Lead upto 100mm, iv) Keeping pipes level or in prescribed grade, aligning pipes, caulking joints etc. v) Refilling & ramming trench complete after the pipes have been tested to required pressure				
138031	125mm dia.	metre	197.49	197.49	
138032	150mm dia.	metre	222.81	222.81	
138040	Hoisting, fitting and fixing in position plastic moulded water storage tank including making connection of intake, delivery, outlet and overflow pipes etc. with all lead & lift upto all stories. (cost of tanks/fittings to be paid separately)				
138041	200 litres capacity tank	Each	647.19	647.19	
138042	500 litres capacity tank	Each	725.36	725.36	
138043	1000 litres capacity tank	Each	1228.81	1228.81	
138044	2000 litres capacity tank	Each	1524.99	1524.99	
138045	2500 litres capacity tank	Each	1720.41	1720.41	
138046	5000 litres capacity tank	Each	2344.66	2344.66	
138047	10000 litres capacity tank	Each	3021.06	3021.06	
138050	Taking out existing OH G.I. Tank & depositing the same to railway store with lead upto 100m and all descent				
138051	237.50-250 litres capacity	Each	725.36	725.36	
138052	450-500 litres capacity	Each	909.51	909.51	
138053	910-1000 litres capacity	Each	1228.81	1228.81	
138054	1820-2000 litres capacity	Each	1798.22	1798.22	
138060	Taking out existing OH plastic moulded water storage tank & depositing the same to railway store with lead upto 100m and all descent				
138061	200 litres capacity tank	Each	608.10	608.10	
138062	500 litres capacity tank	Each	686.27	686.27	
138063	1000 litres capacity tank	Each	1171.84	1171.84	
138064	2000 litres capacity tank	Each	1474.64	1474.64	
138065	2500 litres capacity tank	Each	1597.18	1597.18	
138066	5000 litres capacity tank	Each	2052.43	2052.43	
138067	7500 litres capacity tank	Each	2181.65	2181.65	
138068	10000 litres capacity tank	Each	2845.27	2845.27	
138070	Taking out old C.I./G.I. Pipes including specials with lead upto 100m and stacking at nominated place including all excavation, refilling and making good the surface, as required				
138071	400mm dia.	metre	382.00	382.00	
138072	350mm dia.	metre	408.39	408.39	
138073	300mm dia.	metre	289.13	289.13	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
138074	250mm dia.	metre	248.57	248.57	
138075	200mm dia.	metre	207.13	207.13	
138076	150mm dia.	metre	159.49	159.49	
138077	125mm dia.	metre	145.24	145.24	
138078	100mm dia.	metre	118.47	118.47	
138079	80mm dia.	metre	97.15	97.15	
138080	Taking out old C.I./G.I. pipes and relaying the same including followings : i) Taking out & refixing of specials like sockets, bends, tees, valves etc. with cutting & threading of pipes as required. ii) Jointing of pipes as required. iii) Fixing pipe securely to wall, post or any other structure with necessary M.S. hook/clamp/rod/flat, nails etc. with all lead/lift				
138081	15mm to 25mm dia.	metre	90.74	90.74	
138082	Above 25mm dia. and upto 50mm	metre	106.14	106.14	
138083	Above 50mm dia. and upto 100mm	metre	148.65	148.65	
138084	Above 100mm dia. and upto 150mm	metre	187.98	187.98	
138085	Above 150mm dia. and upto 450mm	metre	244.37	244.37	
138090	Cleaning old C.I./G.I. Pipes with all lead and lift etc.				
138091	15mm dia. & upto 80mm dia.	metre	16.88	16.88	
138092	Above 80mm dia. & upto 150mm dia.	metre	27.67	27.67	
138093	Above 150mm dia. & upto 250mm dia.	metre	38.46	38.46	
138094	Above 250mm dia. & upto 300mm dia.	metre	46.43	46.43	
138095	Above 300mm dia. & upto 400mm dia.	metre	53.00	53.00	
138100	Extra for laying pipes under track				
138101	Upto 80mm dia.	metre	59.38	59.38	
138102	Above 80mm dia. & upto 150mm dia.	metre	81.96	81.96	
138103	Above 150mm dia. & upto 250mm dia.	metre	103.70	103.70	
138104	Above 250mm dia. & upto 300mm dia.	metre	148.09	148.09	
138110	Extra for laying or taking out C.I./G.I./W.I./D.I. water main or underground drain pipe along side running track where adequate precaution are to be taken and un-interrupted work is not possible				
138111	Upto 80mm dia.	metre	52.70	52.70	
138112	Above 80mm dia. & upto 150mm dia.	metre	85.60	85.60	
138113	Above 150mm dia. & upto 250mm dia.	metre	102.05	102.05	
138114	Above 250mm dia.	metre	134.95	134.95	
138120	Cleaning of overhead and underground water tanks including scrubbing & disinfection with bleaching powder				
138121	For Tanks capacity upto 5000 litres	litre	0.39	0.39	
138122	For Tanks capacity over 5000 litres	litre	0.33	0.33	
	New Items To Be Added By Zonal Railways				
139010					
139020					
139030					
139040					
139050					

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
139060					
139070					
139080					

CHAPTER - 14 : DRAINAGE AND SEWERAGE					
Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	Note : 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 :				
141010	Providing, laying and jointing glazed stoneware pipes grade 'A' as per IS:651 including bends etc. with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete				
141011	100mm diameter	metre	197.69	197.14	0.022
141012	150mm diameter	metre	320.91	319.86	0.032
141013	200mm diameter	metre	480.66	479.10	0.043
141014	230mm diameter	metre	654.57	652.57	0.049
141015	250mm diameter	metre	770.03	767.26	0.054
141016	300mm diameter	metre	946.65	942.49	0.065
141017	400mm diameter	metre	2711.81	2707.65	0.085
141020	Providing, laying and jointing half round salt glazed stone-ware pipes including bends etc. with 1:1 cement and ordinary sand mortar including bends etc.				
141021	100mm dia. S.W. pipe	metre	191.03	189.70	0.011
141022	150mm dia. S.W. pipe	metre	298.30	279.98	0.017
141023	200mm dia. S.W. pipe	metre	402.69	400.20	0.022
141024	250mm dia. S.W. pipe	metre	532.65	529.51	0.027
141025	300mm dia. S.W. pipe	metre	711.26	708.11	0.032
141030	Providing and laying cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) all round S.W. pipes including bed concrete as per standard design				
141031	100mm diameter S.W. pipe	metre	389.00	223.46	0.250
141032	150mm diameter S.W. pipe	metre	475.73	273.28	0.306
141033	200mm diameter S.W. pipe	metre	554.59	318.58	0.356
141034	230mm diameter S.W. pipe	metre	607.15	348.78	0.390
141035	250mm diameter S.W. pipe	metre	641.32	368.41	0.412
141040	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size) upto haunches of S.W. pipes including bed concrete as per standard design				
141041	100mm diameter S.W. pipe	metre	184.48	105.80	0.091
141042	150mm diameter S.W. pipe	metre	298.98	171.47	0.148
141043	200mm diameter S.W. pipe	metre	351.43	201.55	0.174
141044	230mm diameter S.W. pipe	metre	385.53	221.11	0.191
141045	250mm diameter S.W. pipe	metre	409.13	234.64	0.203
141046	300mm diameter S.W. pipe	metre	472.07	270.74	0.234
141047	400mm diameter S.W. pipe	metre	605.83	347.45	0.303

Item No.	Description	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
141050	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300mm size (inside) the weight of cover to be not less than 4.50kg and frame to be not less than 2.70kg as per standard design				
141051	100x100mm size 'P' type with F.P.S. bricks class designation 7.5	Each	1662.78	1439.99	0.270
141052	100x100mm size 'P' type with Sewer bricks conforming to IS:4885	Each	1498.12	1266.04	0.270
141053	150x100mm size 'P' type with F.P.S. bricks class designation 7.5	Each	1705.09	1481.98	0.260
141054	150x100mm size 'P' type with Sewer. bricks conforming to IS:4885	Each	1696.29	1484.36	0.260
141055	180x150mm size 'P' type with F.P.S. bricks class designation 7.5	Each	1716.19	1508.75	0.250
141056	180x150mm size 'P' type with Sewer bricks conforming to IS:4885	Each	1551.52	1334.80	0.250
	NON PRESSURE PIPE (Factory Made)				
142010	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes including bends etc 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 upto 800mm dia.				
142011	100mm dia. R.C.C. pipe	metre	292.50	291.50	0.005
142012	150mm dia. R.C.C. pipe	metre	352.50	351.17	0.006
142013	250mm dia. R.C.C. pipe	metre	571.21	569.21	0.009
142014	300mm dia. R.C.C. pipe	metre	647.64	645.14	0.011
142015	450mm dia. R.C.C. pipe	metre	915.15	909.66	0.024
142016	500mm dia. R.C.C. pipe	metre	1107.72	1101.72	0.026
142017	600mm dia. R.C.C. pipe	metre	1368.25	1361.09	0.032
142018	700mm dia. R.C.C. pipe	metre	1613.46	1605.13	0.037
142019	800mm dia. R.C.C. pipe	metre	1914.35	1904.86	0.042
142020	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes including bends etc 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 above 800mm dia.				
142021	900mm dia. R.C.C. pipe	metre	2575.40	2465.50	0.049
142022	1000mm dia. R.C.C. pipe	metre	2988.97	2976.65	0.055
142023	1100mm dia. R.C.C. pipe	metre	3554.62	3540.96	0.061
142024	1200mm dia. R.C.C. pipe	metre	4129.61	4114.29	0.068
142030	Providing and laying non-pressure NP3 class (medium duty) R.C.C. pipes including bends etc. 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 upto 800mm dia.				
142031	300mm dia. R.C.C. pipe	metre	973.68	970.68	0.011
142032	400mm dia. R.C.C. pipe	metre	1121.13	1117.80	0.017
142033	450mm dia. R.C.C. pipe	metre	1413.67	1408.17	0.024
142034	500mm dia. R.C.C. pipe	metre	1786.96	1780.97	0.026

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
142035	600mm dia. R.C.C. pipe	metre	2160.87	2153.71	0.032
142036	700mm dia. R.C.C. pipe	metre	2627.21	2618.89	0.037
142037	800mm dia. R.C.C. pipe	metre	3261.23	3251.74	0.042
142040	Providing and laying non-pressure NP3 class (medium duty) R.C.C. pipes including bends etc 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 above 800mm dia.				
142041	900mm dia. R.C.C. pipe	metre	4028.21	3918.31	0.049
142042	1000mm dia. R.C.C. pipe	metre	4533.30	4520.98	0.055
142043	1100mm dia. R.C.C. pipe	metre	5190.01	5176.35	0.061
142044	1200mm dia. R.C.C. pipe	metre	5980.11	5964.79	0.068
	MANHOLES				
143010	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 (1 cement : 2 coarse sand : 4graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm 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 20mm nominal size) finished with a floating coat of neat cement complete as per standard design				
143011	Inside size 90cmx80cm and 45cm deep including C.I. cover with frame (light duty) 455mmx610mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg) with F.P.S. bricks class designation 7.5	Each	7521.67	6255.50	2.920
143012	Inside size 90cmx80cm and 45cm deep including C.I. cover with frame (light duty) 455mmx610mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg) with Sewer bricks conforming to IS:4885	Each	7075.30	5784.84	2.920
143013	Inside size 120cmx90cm and 90cm deep including C.I. cover with frame (medium duty) 500mm internal diameter, total weight of cover and frame to be not less than 116kg (weight of cover 58kg and weight of frame 58kg) with F.P.S. bricks class designation 7.5	Each	9938.15	7770.58	4.730
143014	Inside size 120cmx90cm and 90cm deep including C.I. cover with frame (medium duty) 500mm internal diameter, total weight of cover and frame to be not less than 116kg (weight of cover 58kg and weight of frame 58kg), with Sewer bricks conforming to IS:4885	Each	8760.16	6526.16	4.730

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
143020	Deduct for providing S.F.R.C. Cover and frame (Heavy duty, HD-20 grade designation) 560mm internal diameter conforming to IS:12592 in lieu of CI frame & cover from items 143013 to 143014	Each	-1306.69	-1306.69	0.000
143030	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm 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 20mm nominal size) finished with a floating coat of neat cement complete as per standard design				
143031	Inside size 120cmx90cm and 90cm deep including C.I. cover with frame (heavy duty) 560mm internal diameter, total weight of cover and frame to be not less than 208kg (weight of cover 108kg and weight of frame 100kg) with F.P.S. bricks class designation 7.5	Each	11760.49	9661.09	4.730
143032	Inside size 120cmx90cm and 90cm deep including C.I. cover with frame (heavy duty) 560mm internal diameter, total weight of cover and frame to be not less than 208kg (weight of cover 108kg and weight of frame 100kg), with Sewer bricks conforming to IS:4885	Each	10747.17	8590.63	4.730
143033	Deduct from 143030 for providing S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to IS:12592 in lieu of CI frame & cover	Each	1045.35	1045.35	
143040	Extra for depth for manholes of size				
143041	Size 90cmx80cm with FPS Bricks class designation 7.5	metre	5173.85	4287.21	1.260
143042	Size 90cmx80cm with Sewer bricks conforming to IS:4885	metre	3919.87	2962.51	1.260
143043	Size 120cmx90cm with FPS Bricks class designation 7.5	metre	6184.43	5122.90	1.520
143044	Size 120cmx90cm with Sewer bricks conforming to IS:4885	metre	4689.78	3543.96	1.520

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
143050	Constructing brick masonry circular type manhole 0.91m internal dia. at bottom and 0.56m dia. at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12mm 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 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design, 0.91m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to IS:12592, total weight of cover and frame to be not less than 182kg, fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately)				
143051	With F.P.S. Bricks class designation 7.5	Each	8424.44	6808.70	2.750
143052	With Sewer bricks conoirming to IS:4885	Each	7750.50	6095.47	2.750
143060	Extra depth for circular type manhole 0.91mm internal dia. (at bottom) beyond 0.91m to 1.67m				
143061	With F.P.S. Bricks class designation 7.5	metre	4400.49	3633.46	3.610
143062	With Sewer bricks conforming to IS:4885	metre	3350.50	2524.26	3.610
143070	Constructing brick masonry circular type manhole 1.22m internal dia. at bottom and 0.56m dia. at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12mm 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 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design. 1.68m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to IS:12592, total weight of cover and frame to be not less than 182kg, fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately)				
143071	With F.P.S. Bricks class designation 7.5	Each	14469.51	11259.67	5.390
143072	With Sewer bricks conforming to IS:4885	Each	12815.78	9512.36	5.390

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
143080	Extra depth for circular type manhole 1.22m internal dia. (at bottom) beyond 1.68m to 2.29m				
143081	With F.P.S. Bricks class designation 7.5	metre	5711.92	4727.51	6.270
143082	With Sewer bricks conforming to IS:4885	metre	4341.45	3279.75	6.270
143090	Constructing brick masonry circular manhole 1.52m internal dia. at bottom and 0.56m dia. at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm 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 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design, 2.30m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to IS:12592, total weight of cover and frame to be not less than 182kg, fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately)				
143091	With F.P.S. bricks class designation 7.5	Each	30125.62	23284.41	10.860
143092	With Sewer bricks conforming to IS:4885	Each	25424.84	18317.90	10.860
143100	Extra depth for circular type manhole 1.52m internal dia. (at bottom) beyond 2.30m				
143101	With F.P.S. bricks class designation 7.5	metre	14045.44	11694.30	16.710
143102	With Sewer bricks conforming to IS:4885	metre	10501.51	7950.51	16.710
143110	Providing M.S. foot rests including fixing in manholes with 20cmx20cmx10cm cement concrete blocks 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) as per standard design				
143111	With 20mmx20mm square bar	Each	176.29	170.93	0.009
143112	With 20mm diameter round bar	Each	158.25	152.90	0.009
143120	Replacement of M.S. foot rests in manholes/septic tanks or wells etc. including dismantling concrete blocks and fixing with 20cmx20cmx10cm cement concrete blocks 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)				
143121	With 20mmx20mm square bar	Each	204.25	198.89	0.009
143122	With 20mm diameter round bar	Each	186.21	180.86	0.009
143130	Supplying and fixing C.I. cover without frame for manholes				
143131	455mmx610mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23kg	Each	1987.07	1987.07	
143132	500mm diameter C.I. cover (medium duty) the weight of cover to be not less than 58kg	Each	1464.40	1464.40	
143133	560mm diameter C.I. cover (heavy duty) the weight of cover to be not less than 108kg	Each	3685.76	3685.76	

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	Note : Normally CI covers should be provided only in the locations where chances of theft are negligible				
143140	Providing and fixing in position precast R.C.C. manhole cover and frame of required shape and approved quality. (As per IS:12592-1991)				
143141	LD-2.5 rectangular shape 600mmx450mm internal dimensions	Each	2691.94	2638.39	
143142	LD-2.5 square shape 450mm internal dimensions	Each	934.19	894.03	
143143	LD-2.5 circular shape 450mm internal diameter	Each	1875.88	1835.72	
143144	MD-10 square shape 450mm internal dimensions	Each	1715.55	1662.00	
143145	MD-10 circular shape 500mm internal diameter	Each	1879.50	1839.34	
143146	HD-20 circular shape 560mm internal diameter	Each	3059.75	3019.59	
143147	EHD-35 circular shape 560mm internal diameter	Each	4039.77	3999.61	
143150	Supplying, fitting & fixing in position reinforced cement polymer concrete (R.C.P.C.) manhole cover and frame to match with IS:12592 with cement concrete 1:2:4 for embedding the manhole cover frame :				
143151	a) 3 MT load bearing capacity manhole cover provided with 2 nos. lifter lock fitted with matching frame (size of cover : 440mm dia. x 50mm thick and size of frame : 530mm dia. x 100mm thick)	Each	3070.48	3070.48	
143152	b) 12 MT load bearing capacity manhole cover provided with 2 nos. lifter lock fitted with matching frame (size of cover : 590mm dia. x 75mm thick and size of frame : 750mm dia. x 150mm thick)	Each	3175.60	3175.60	
143153	c) 25 MT load bearing capacity manhole cover provided with 2 nos. lifter lock fitted with matching frame (size of cover : 630mm dia. x 100mm thick and size of frame : 790mm dia. x 185mm thick)	Each	3230.48	3230.48	
143160	Supplying and fixing C.I. cover 300mmx300mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5kg	Each	532.57	532.57	
143170	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 20mm 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				
143171	For pipes 100mm to 230mm dia.	Each	208.41	187.02	0.056
143172	For pipes 250mm to 300mm dia.	Each	249.43	212.40	0.095
143173	For pipes 350mm to 450mm dia.	Each	362.45	303.07	0.153

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
143180	Providing sand cast iron drop connection externally for 60cm 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 40mm nominal size) with all centring and shuttering required, cutting holes in walls and making good the 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				
143181	100mm dia. sand cast iron drop connection	Each	5499.22	5256.91	0.340
143182	150mm dia. sand cast iron drop connection	Each	6968.63	6649.59	0.460
143190	Extra for depths beyond 60cm of sand cast iron drop connection complete				
143191	For 100mm dia. sand cast iron drop connection	Each	1846.81	1667.85	0.210
143192	For 150mm dia. sand cast iron drop connection	Each	2590.07	2366.37	0.260
143200	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (brickwork for raising depth of manhole to be paid separately). (assuming that the old slab is dismantled and not reused)				
143201	Rectangular manhole 90cmx80cm (inside dimensions) with rectangular cover 600mmx450mm of grade LD-2.5	Each	861.28	632.62	0.200
143202	Rectangular manhole 120cmx90cm (inside dimensions) with circular cover 500mm dia. of grade MD-10	Each	1355.01	1005.29	0.320
143203	Rectangular manhole 120cmx90cm (inside dimensions) with circular cover 560mm dia. of grade HD-20	Each	1261.46	938.64	0.280
143204	Circular manhole 140cm dia. (Inside dimensions) with circular cover 600mm dia. of grade EHD-35	Each	118.49	91.59	0.280
143210	Constructing brick masonry road gully chamber 50cmx45cmx60cm with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500mmx450mm precast R.C.C. horizontal grating with frame complete as per standard design				
143211	With F.P.S. bricks	Each	3225.87	2627.62	0.930
143220	Constructing brick masonry road gully chamber 45cmx45cmx77.5cm with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design				
143221	With F.P.S. bricks	Each	4509.92	3850.27	0.820

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
143230	Constructing brick masonry road gully chamber 110cmx50cmx77.5cm with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500mmx450mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design				
143231	With F.P.S. bricks	Each	5596.41	4543.57	1.660
143240	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with 7.5 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455mmx610mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg) R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) foundation concrete 1:5:10 (1 cement : 5 fine sand : 10graded stone aggregate 40mm nominal size), inside plastering 12mm 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				
143241	Inside dimensions 455mmx610mm and 45cm deep for single pipe line with F.P.S. bricks	Each	5458.74	4893.28	0.900
143242	Inside dimensions 500mmx700mm and 45cm deep for pipe line with one or two inlets with F.P.S. bricks	Each	5682.98	5055.59	1.020
143243	Inside dimensions 600mmx850mm and 45cm deep for pipe line with three or more inlets with F.P.S. bricks	Each	6214.94	5448.28	1.270
143250	Extra for depth beyond 45cm of brick masonry chamber				
143251	For 455mmx610mm size (inside dimensions) with F.P.S. bricks	metre	3625.55	3007.41	0.870
143252	For 500mmx700mm size (inside dimensions) with F.P.S. bricks	metre	3946.75	3272.83	0.950
143253	For 600mmx850mm size (inside dimensions) with F.P.S. bricks	metre	4584.38	3800.17	1.120

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
143260	Constructing grease trap 80cmx40cmx46cm (inside) with one brick thick brick masonry wall with inlet and outlet drain with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand) plastered 12mm thick with 1:4 (1 cement : 4 coarse sand) finished with a floating coat of neat cement on inside and exposed surfaces having two stone/RCC baffled walls 34.5cm deep and third one 19cm deep, each 40mm thick and 45cm long embedded 2.5cm on either side in brick masonry, 40mm thick 100cmx60cm stone/RCC cover and 7.5cm thick bed concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) with 40mm flooring in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) ... contd. ---				
	... contd. --- with a floating coat of neat cement including all earth excavation, refilling and disposal of surplus earth complete as per standard design				
143261	With F.P.S. bricks	Each	2729.69	2222.57	1.020
143270	Making soak pit 2.5m diameter, 3m deep with 45cmx45cm dry brick honey comb shaft with bricks of class designation 7.5 and S.W. drain pipes 100mm diameter, 1.8m long complete as per standard design, including excavation complete				
143271	With F.P.S. bricks	Each	17488.17	12094.14	
143272	Extra for every cm depth above 3m as per site conditions, if required	cm depth	58.29	40.31	
143280	Constructing soak pit 1.2mx1.2mx1.2m filled with brickbats including S.W. drain pipe 100mm diameter and 1.2m long complete as per standard design including excavation complete	Each	2197.34	1532.44	
143281	Extra for every cm depth above 1.2m as per site conditions, if required	cm depth	18.31	12.77	
143290	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				
143291	100mm dia.	Each	238.38	236.71	0.200
143292	150mm dia.	Each	336.60	334.27	0.300
	MISCELLANEOUS				
144010	Cutting holes upto 30cmx30cm in walls including making good the same. (In old work only when specially ordered)				
144011	With F.P.S. bricks	Each	156.69	135.69	
144020	Cutting holes upto 15cmx15cm 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 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size) including finishing complete so as to make it leak proof. (in old work only when specially ordered)	Each	111.48	108.80	0.020

Item No.	Description	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
144030	Making holes upto 20cmx20cm and embedding pipes upto 150mm diameter in masonry and filling with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including disposal of malba. (in old work only when specially ordered)	Each	49.38	44.89	0.010
144040	Providing and fixing spun R.C.C. tapering vent shaft 450mm (clear dia. at the base and 150mm/125mm dia. at the top), 9.1m overall length with cowl including necessary excavation & concrete complete, as per standard plan	Each	6531.07	5426.30	
144050	Supplying, fitting & fixing in position C.I. Jali with frame with cement concrete 1:2:4 including all lead				
144051	300mm x 600mm jali weighing 23 kg	Each	2417.66	2417.66	0.050
144052	450mm x 600mm jali weighing 56 kg	Each	4772.02	4772.02	0.080
144060	Supplying, fitting & fixing in position Polyelastomer Grating & R.C.P.C. Frame with hinge arrangement with cement concrete 1:2:4				
144061	a) 12 MT load bearing capacity Polyelastomer rectangular grating with R.C.P.C. frame (size of grating : 450mm x 380mm x 50mm thick, size of frame : 600mm x 550mm x 160mm)	Each	1460.41	1460.41	0.001
144062	b) 3 MT load bearing capacity Polyelastomer rectangular grating with R.C.P.C. frame (size of grating : 380mm x 290mm x 25mm thick size of frame : 480mm x 410mm x 90mm)	Each	1357.50	1357.50	0.001
144063	c) 1 MT load bearing capacity Polyelastomer rectangular grating with R.C.P.C. frame (size of grating : 290mm x 210mm x 25mm thick size of frame : 360mm x 300mm x 65mm)	Each	1290.13	1290.13	0.001
	New Items To Be Added By Zonal Railways				
145010					
145020					
145030					
145040					
145050					
145060					
145070					
145080					
145090					
145100					

CHAPTER - 15 : SANITARY INSTALLATIONS					
Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
151010	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast iron 'P' or 'S' trap, 10 litres low level white P.V.C. flushing cistern 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				
151011	White Vitreous China Orissa pattern W.C. pan of size 580mmx440mm with integral type foot rests	Each	3550.36	3550.36	0.050
151012	Stainless Steel AISI-304 (18/8) Orissa pattern W.C. pan of size 585mmx480mm with integrated type foot rests	Each	9189.44	9189.44	0.050
151020	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litres low level white, P.V.C. flushing cistern 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				
151021	W.C. pan with ISI marked white solid plastic seat and lid	Each	2701.30	2701.30	0.002
151022	W.C. pan with ISI marked black solid plastic seat and lid	Each	2707.11	2707.11	0.002
151030	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litres low level white vitreous china flushing cistern and C.P flush bend with fittings & C.I./ M.S. brackets, 40mm 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				
151031	W.C. pan with ISI marked white solid plastic seat and lid	Each	3808.42	3808.42	0.002
151032	W.C. pan with ISI marked black solid plastic seat and lid	Each	3814.23	3814.23	0.002
151040	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430mmx260mmx350mm and 340mmx410mmx 265mm 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				
151041	One urinal basin with 5 litres white P.V.C. automatic flushing cistern	Each	3485.58	3485.58	0.025
151042	Range of two urinal basins with 10 litres white P.V.C. automatic flushing cistern	Each	4992.95	4992.95	0.040

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
151043	Range of three urinal basins with 10 litres white P.V.C. automatic flushing cistern	Each	7001.57	7001.57	0.067
151044	Range of four urinal basins with 15 litres white P.V.C. automatic flushing cistern	Each	9247.33	9247.33	0.095
151050	Providing and fixing white, vitreous china flat back half stall urinal of 580mmx380mmx350mm with white P.V.C. 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 coupling in C.P. brass including painting of fittings and cutting and making good the walls and floors, wherever required				
151051	Single half stall urinal with 5 litres P.V.C. automatic flushing cistern	Each	6121.40	6121.40	0.051
151052	Range of two half stall urinals with 5 litres P.V.C. automatic flushing cistern	Each	9495.20	9495.20	0.102
151053	Range of three half stall urinals with 10 litres P.V.C. automatic flushing cistern	Each	12540.02	12540.02	0.153
151054	Range of four half stall urinals with 10 litres P.V.C. automatic flushing cistern	Each	15477.63	15477.63	0.203
151060	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. 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				
151061	Single squatting plate of 600mmx350 mm size with 5 litres P.V.C. automatic flushing cistern	Each	4551.34	4551.34	0.051
151062	Range of two squatting plates with 5 litres P.V.C. automatic flushing cistern	Each	6848.73	6848.73	0.102
151063	Range of three squatting plates with 10 litres P.V.C. automatic flushing cistern	Each	8903.36	8903.36	0.153
151064	Range of four squatting plates with 10 litres P.V.C. automatic flushing cistern	Each	10862.12	10862.12	0.203
151070	Providing and fixing wash basin with C.I./M.S. brackets, 15mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls, wherever required :				
151071	White, vitreous china wash basin size 630mmx 450mm with a pair of 15mm C.P. brass pillar taps	Each	2117.02	2117.02	0.015
151072	White vitreous china wash basin size 630mmx 450mm with a single 15mm C.P. brass pillar taps	Each	1918.95	1918.95	0.015
151073	White vitreous china wash basin size 550mmx 400mm with a pair of 15mm C.P. brass pillar taps	Each	1725.01	1725.01	0.015
151074	White vitreous china flat back wash basin size 550 mmx400mm with single 15mm C.P. brass pillar tap	Each	1526.94	1526.94	0.015
151075	White vitreous china angle back wash basin size 600mmx480mm with single 15mm C.P. brass pillar tap	Each	1918.95	1918.95	0.015

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
151076	White vitreous china angle back wash basin size 400mmx400mm with single 15mm C.P. brass pillar tap	Each	1526.94	1526.94	0.015
151077	White, vitreous china flat back wash basin size 450 mmx300mm with single 15mm C.P. brass pillar tap	Each	1431.55	1431.55	0.015
151078	White, vitreous china surgeon type wash basin of size 660 mmx460mm with a pair of 15mm C.P. brass pillar taps with elbow operated levers	Each	3280.69	3280.69	0.015
151079	White, vitreous china flat back wash basin size 520mmx520mm corner type with single 15mm C.P. brass pillar tap	Each	1319.46	1319.46	0.015
151080	Providing and fixing special type wash basin with C.I./M.S. brackets, 15mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls, wherever required :				0.015
151081	White, vitreous China Surgeon type wash basin of size 660mmx460mm with single 15mm C.P. brass pillar taps with elbow operated levers ISI marked	Each	3036.16	3036.16	0.015
151082	Stainless Steel AISI-304 (18/8) Round basin 405 mmx355mm with single 15mm C.P. brass pillar tap	Each	3425.26	3425.26	0.015
151083	Stainless Steel AISI-304 (18/8) wash basin 530mm x345mm with single 15mm C.P. brass pillar tap	Each	4280.93	4280.93	0.015
151090	EXTRA for :				
151091	Providing 32mm dia. C.P. brass trap	Each	620.68	620.68	
151092	Providing 32mm dia. C.P. brass union	Each	243.92	243.92	
151100	Supplying and fixing white vitreous china circular wash basin category no. 1004 group I, size 470mm dia. with CP brass pillar tap, 32mm rubber plug and CP brass chain, 32mm CP brass waste of standard pattern connected with GI waste pipe upto floor level and 32mm dia. CP brass trap and unions complete including cutting and making good the walls etc. as a complete job	Each	2598.67	2598.67	0.015
151110	Providing and fixing white, vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings	Each	1201.26	1201.26	0.010
151120	Providing and fixing white, vitreous china water closet squatting pan (Indian type)				
151121	Long pattern W.C. pan of size 580mm	Each	1258.14	1258.14	0.051
151122	Orissa pattern W.C. pan of size 580mmx440mm	Each	1846.66	1846.66	0.051
151130	Extra for using coloured W.C. pan instead of white W.C. pan				
151131	Orissa pattern W.C. pan 580mmx440mm or of any other size	Each	-232.30	-232.30	
151132	Long pan pattern W.C. pan	Each	65.04	65.04	
151140	Providing and fixing white, vitreous china pedestal European type water closet pan	Each	1047.35	1047.35	
151150	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	3594.84	3594.84	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
151160	Providing and fixing a pair of white, vitreous china foot rests of standard pattern for squatting pan water closet or in urinals :				
151161	250mmx130mmx30mm	pair	109.84	109.84	0.025
151162	250mmx125mmx25mm	pair	92.42	92.42	0.025
151170	Providing and fixing a pair of approved colour, vitreous china foot rests of standard pattern for squatting pan water closet or in urinals :				
151171	250mmx130mmx30mm	pair	109.84	109.84	0.025
151172	250mmx125mmx25mm	pair	92.42	92.42	0.025
151180	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 :				
151181	10 litres capacity - White	pair	919.47	919.47	0.010
151182	10 litres capacity - Coloured	pair	936.89	936.89	0.010
151190	Providing and fixing controlled flush, low level cistern made of vitreous china conforming to IS:7231, with all fittings complete				
151191	10 litres (full flush) capacity - White	Each	1714.95	1714.95	0.020
151192	10 litres (full flush) capacity - Coloured	Each	2411.85	2411.85	0.020
151200	Providing and fixing 5 litres C.I. automatic flushing cistern with fittings	Each	1349.37	1349.37	0.015
151210	Providing and fixing 10 litres C.I. automatic flushing cistern with fittings	Each	1930.12	1930.12	0.015
151220	Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete				
151221	White, solid plastic seat with lid	Each	323.48	323.48	
151222	Black solid plastic seat with lid	Each	329.29	329.29	
151230	Extra for providing coloured other than black solid P.V.C. plastic seat and cover in European type W.C. pan, instead of white, plastic seat and cover	Each	7.26	7.26	
151240	Providing and fixing standard G.I. chain with G.I. pull	Each	96.47	96.47	
151250	Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan	Each	80.72	80.72	0.001
151260	Providing and fixing white, vitreous china flat back or wall corner type lipped front urinal basin of 430mmx260mmx350mm and 340mmx410mm x265mm sizes respectively	Each	1012.99	1012.99	0.020
151270	Providing and fixing white, vitreous china squatting plate urinal with integral longitudinal flush pipe	Each	1556.87	1556.87	0.020
151280	Providing and fixing white, vitreous china wash basin, including making all connections but excluding the cost of fittings				
151281	Flat back wash basin of size 630mmx450mm	Each	1140.53	1140.53	0.015
151282	Flat back wash basin of size 550mmx400mm	Each	748.53	748.53	0.015
151283	Angle back wash basin of size 600mmx480mm	Each	1140.53	1140.53	0.015
151284	Angle back wash basin of size 400mmx400mm	Each	748.53	748.53	0.015
151285	Flat back wash basin of size 450mmx300mm	Each	653.13	653.13	0.015
151286	Surgeon type wash basin of size 660mmx460mm	Each	2211.29	2211.29	0.015
151290	Providing and fixing white, glazed fire clay kitchen sink of size 600x450x250mm including making all connections excluding cost of fittings	Each	1324.61	1324.61	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
151300	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 with C.P. brass hinges and rubber buffers, 10 litres low level flushing cistern with fittings and brackets, 40mm flush bend 20mm overflow 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	Each	4522.40	4522.40	0.050
	SINK				
152010	Providing and fixing white, glazed fire clay kitchen sink of size 600mmx450mmx250mm kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40mm C.P. brass waste compete, including painting the fittings and brackets, cutting and making good the walls, wherever required	Each	1977.20	1977.20	0.015
152020	Providing and fixing Stainless Steel AISI-304 (18/8) kitchen sink with drain board as per IS:13983 with C.I. brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls, wherever required :				
152021	510mmx1040mm bowl depth 250mm	Each	6030.36	6030.36	0.015
152022	510mmx1040mm bowl depth 225mm	Each	6203.42	6203.42	0.015
152023	510mmx1040mm bowl depth 200mm	Each	6766.75	6766.75	0.015
152024	510mmX1040mm bowl depth 178mm	Each	6887.54	6887.54	0.015
152030	Providing and fixing Stainless Steel AISI-304 (18/8) kitchen sink without drain board as per IS:13983 with C.I. brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls, wherever required :				
152031	610mmx510mm bowl depth 200mm	Each	6608.52	6608.52	0.015
152032	610mmx460mm bowl depth 200mm	Each	6528.23	6528.23	0.015
152033	470mmX420mm bowl depth 178mm	Each	6306.60	6306.60	0.015
152040	Providing and fixing white, vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug 40mm 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 :				
152041	Size 450mmx300mmx150mm	Each	2500.21	2500.21	0.015
152042	Size 600mmx450mmx200mm	Each	2918.35	2918.35	0.015
152050	Providing and fixing white, glazed fire clay draining board of size 600mmx450mmx25mm with C.I./M.S. brackets including painting of brackets, cutting and making good the walls, wherever required	Each	1370.51	1370.51	0.030
152060	Providing and fixing 75cmx40cmx4cm vitreous china draining board for sink supported on painted R.S. or C.I brackets, complete including cutting and making good the wall	Each	1824.66	1824.66	0.030

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
152070	Providing and fixing white, vitreous china laboratory sink, including making all connections excluding the cost of fittings				
152071	Size 450mmx300mmx150mm	Each	789.16	789.16	0.030
152072	Size 600mmx450mmx200mm	Each	1207.30	1207.30	0.030
152080	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete				
152081	Semi-rigid pipe 32mm dia.	Each	98.73	98.73	
152082	Flexible pipe 32mm dia.	Each	63.88	63.88	
152083	Semi-rigid pipe 40mm dia.	Each	121.96	121.96	
152084	Flexible pipe 40mm dia.	Each	63.88	63.88	
152090	Providing and fixing 100mm sand cast iron grating for gully, trap	Each	18.65	18.65	
152100	Providing and fixing in position 25mm diameter mosquito proof coupling of approved municipal design	Each	37.05	37.05	
152110	Providing and fixing 600mmx450mm bevelled edge mirror, 5.5mm thick of float glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete	Each	728.21	690.02	
152120	Providing and fixing mirror of 5.5mm thickness of float Glass (of approved Quality) required shape and size with plastic moulded frame of approved make and shade with 6mm thick hard board backing				
152121	Circular shape 450mm dia. (outer dimension)	Each	367.51	367.51	
152122	Rectangular shape 453mmx357mm (outer dimension)	Each	457.40	457.40	
152123	Oval shape 450mmx350mm (outer dimension)	Each	441.83	441.83	
152124	Rectangular shape 1500mmx450mm (outer dimension)	Each	1532.14	1532.14	
152130	Providing and fixing 600mmx120mmx5mm glass shelf with edges round or supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40mm long screws, rawl plugs etc. complete	Each	1770.42	1770.42	
152140	Providing and fixing toilet paper holder :				
152141	C.P. Brass	Each	342.77	323.68	
152142	Vitreous China	Each	685.12	666.03	
	SANITARY FITTINGS				
	Note : Sand cast iron S&S pipes shall not be used except for minor work or due to non availability of centrifugally cast (spun) iron S&S pipe.				
153010	Providing and fixing soil, waste and vent pipes				
153011	100mm dia. sand cast iron S&S pipe as per IS:1729	metre	974.02	974.02	0.005
153012	100mm dia. centrifugally cast (spun) iron S&S pipe as per IS:3989	metre	871.32	871.32	0.005
153013	75mm dia. sand cast iron S&S pipe as per IS:1729	metre	827.80	827.80	0.004
153014	75mm dia. centrifugally cast (spun) iron S&S pipe as per IS:3989	metre	752.07	752.07	0.004

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153020	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				
153021	75mm dia. pipe	Each	37.85	37.85	0.001
153022	100mm dia. pipe	Each	44.58	44.58	0.001
153030	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 10cmx10cmx10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.				
153031	For 100mm dia. pipe	Each	99.54	98.26	0.005
153032	For 75mm dia. pipe	Each	99.54	98.26	0.005
153040	Providing and fixing bend of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete				
153041	100mm dia. sand cast iron S&S as per IS-1729	Each	600.15	600.15	
153042	100mm dia. sand cast iron S&S as per IS-3989	Each	399.50	399.50	
153043	75mm dia. sand cast iron S&S as per IS-1729	Each	490.62	490.62	
153044	75mm dia. sand cast iron S&S as per IS-3989	Each	319.17	319.17	
153050	Providing and fixing plain bend of required degree :				
153051	100mm dia. sand cast iron S&S as per IS-1729	Each	530.46	530.46	
153052	100mm dia. sand cast iron S&S as per IS-3989	Each	318.95	318.95	
153053	75mm dia. sand cast iron S&S as per IS-1729	Each	424.41	424.41	
153054	75mm dia. sand cast iron S&S as per IS-3989	Each	240.47	240.47	
153060	Providing and fixing heel rest sanitary bend :				
153061	100mm dia. sand cast iron S&S as per IS-1729	Each	645.10	645.10	
153062	100mm dia. sand cast iron S&S as per IS-3989	Each	366.69	366.69	
153063	75mm dia. sand cast iron S&S as per IS-1729	Each	528.95	528.95	
153064	75mm dia. sand cast iron S&S as per IS-3989	Each	314.07	314.07	
153070	Providing and fixing double equal junction of required degree with access door, insertion rubber washers 3mm thick, bolts and nuts complete :				
153071	100mmx100mmx100mmx100mm sand cast iron S&S as per IS-1729	Each	1889.41	1889.41	
153072	100mmx100mmx100mmx100mm sand cast iron S&S as per IS-3989	Each	804.57	804.57	
153073	75mmx75mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	1652.12	1652.12	
153074	75mmx75mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	628.84	628.84	
153080	Providing and fixing double equal plain junction of required degree :				
153081	100mmx100mmx100mmx100mm sand cast iron S&S as per IS-1729	Each	1750.03	1750.03	
153082	100mmx100mmx100mmx100mm sand cast iron S&S as per IS-3989	Each	772.59	772.59	
153083	75mmx75mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	1517.73	1517.73	
153084	75x75x75x75mm Sand cast iron S&S as per IS-3989	Each	568.79	568.79	
153090	Providing and fixing single equal plain junction of required degree with access door, insertion rubber wash 3mm thick, bolts and nuts complete				

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153091	100mmx100mmx100mm sand cast iron S&S as per IS-1729	Each	1064.75	1064.75	
153092	100mmx100mmx100mm sand cast iron S&S as per IS-3989	Each	574.59	574.59	
153093	75mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	943.60	943.60	
153094	75mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	474.36	474.36	
153100	Providing and fixing single equal plain junction of required degree :				
153101	100mmx100mmx100mm sand cast iron S&S as per IS-1729	Each	995.06	995.06	
153102	100mmx100mmx100mm sand cast iron S&S as per IS-3989	Each	603.63	603.63	
153103	75mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	877.40	877.40	
153104	75mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	389.57	389.57	
153110	Providing and fixing double unequal junction of required degree with access door, insertion rubber washers 3mm thick, bolts and nuts complete				
153111	100mmx100mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	726.75	726.75	
153112	100mmx100mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	1002.03	1002.03	
153120	Providing and fixing double unequal plain junction of required degree :				
153121	100mmx100mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	700.54	700.54	
153122	100mmx100mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	894.01	894.01	
153130	Providing and fixing single unequal junction of required degree with access door insertion washer 3mm thick, bolts and nuts complete :				
153131	100mmx100mmx75mm sand cast iron S&S as per IS-1729	Each	520.00	520.00	
153132	100mmx100mmx75mm sand cast iron S&S as per IS-3989	Each	749.98	749.98	
153140	Providing and fixing single unequal plain junction of required degree :				
153141	100mmx100mmx75mm sand cast iron S&S as per IS-1729	Each	403.85	403.85	
153142	100mmx100mmx75mm sand cast iron S&S as per IS-3989	Each	755.79	755.79	
153150	Providing and fixing double equal plain invert branch of required degree :				
153151	100mmx100mmx100mmx100mm sand cast iron S&S as per IS-1729	Each	650.09	650.09	
153152	100mmx100mmx100mmx100mm sand cast iron S&S as per IS-3989	Each	685.80	685.80	
153153	75mmx75mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	438.35	438.35	
153154	75mmx75mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	509.20	509.20	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153160	Providing and fixing single equal plain invert branch of required degree :				
153161	100mmx100mmx100mm sand cast iron S&S as per IS-1729	Each	452.29	452.29	
153162	100mmx100mmx100mm sand cast iron S&S as per IS-3989	Each	453.45	453.45	
153163	75mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	394.21	394.21	
153164	75mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	382.60	382.60	
153170	Providing and fixing double unequal invert branch of required degree :				
153171	100mmx100mmx75mmx75mm sand cast iron S&S as per IS-1729	Each	696.55	696.55	
153172	100mmx100mmx75mmx75mm sand cast iron S&S as per IS-3989	Each	871.94	871.94	
153180	Providing and fixing single unequal plain invert branch of required degree :				
153181	100mmx100mmx75mm sand cast iron S&S as per IS-1729	Each	633.39	633.39	
153182	100mmx100mmx75mm sand cast iron S&S as per IS-3989	Each	658.22	658.22	
153190	Providing and fixing sand cast iron S&S off sets as per IS-1729 :				
153191	76mm off sets with 75mm dia. pipe	Each	199.08	199.08	
153192	76mm off sets with 100mm dia. pipe	Each	366.57	366.57	
153193	114mm off sets with 75mm dia. pipe	Each	366.57	366.57	
153194	114mm off sets with 100mm dia. pipe	Each	442.18	442.18	
153195	152mm off set with 75mm dia. pipe	Each	434.31	434.31	
153196	152mm off sets with 100mm dia. pipe	Each	553.94	553.94	
153200	Providing and fixing sand cast iron S&S off sets as per IS-3989 :				
153201	75mm off sets with 75mm dia. pipe	Each	296.65	296.65	
153202	150mm off sets with 75mm dia. pipe	Each	316.00	316.00	
153203	150mm off sets with 100mm dia. pipe	Each	475.12	475.12	
153210	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts and nuts complete :				
153211	100mm sand cast iron S&S as per IS-1729	Each	468.90	468.90	
153212	100mm sand cast iron S&S as per IS-3989	Each	403.85	403.85	
153213	75mm sand cast iron S&S as per IS-1729	Each	351.24	351.24	
153214	75mm sand cast iron S&S as per IS-3989	Each	271.09	271.09	
153215	50mm sand cast iron S&S as per IS-1729	Each	257.27	257.27	
153216	50 mm sand cast iron S&S as per IS-3989	Each	199.20	199.20	
153220	Providing and fixing terminal guard :				
153221	100mm sand cast iron S&S as per IS-1729	Each	216.85	216.85	
153222	100mm sand cast iron S&S as per IS-3989	Each	219.18	219.18	
153223	75mm sand cast iron S&S as per IS-1729	Each	158.43	158.43	
153224	75mm sand cast iron S&S as per IS-3989	Each	203.73	203.73	
153225	50mm sand cast iron S&S as per IS-1729	Each	297.92	297.92	
153226	50mm sand cast iron S&S as per IS-3989	Each	76.08	76.08	
153230	Supplying, fitting and fixing cowls to vent pipes :				
153231	Wire cowls for pipes of size 50/75 mm dia.	Each	70.27	70.27	
153232	Wire cowls for pipes of size 100/150 mm dia.	Each	100.47	100.47	
153240	Providing and fixing collar :				
153241	100mm sand cast iron S&S as per IS-1729	Each	425.92	425.92	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153242	100mm centrifugally cast (spun) iron S&S as per IS-3989	Each	231.95	231.95	
153243	75mm sand cast iron S&S as per IS-1729	Each	354.72	354.72	
153244	75mm centrifugally cast (spun) iron S&S as per IS-3989	Each	164.24	164.24	
153245	50mm Sand cast iron S&S as per IS-1729	Each	238.57	238.57	
153246	50 mm centrifugally cast (spun) iron S&S as per IS-3989	Each	89.90	89.90	
153250	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :				
153251	100mm	Each	260.98	260.98	
153252	75mm	Each	226.04	226.04	
153253	50mm	Each	187.42	187.42	
153260	Providing and fixing M.S. stays and clamps for sand cast iron/centrifugally cast (spun) iron pipes of diameter				
153261	100mm	Each	36.82	36.82	
153262	75mm	Each	38.79	38.79	
153263	50mm	Each	34.55	34.55	
153270	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				
153271	100mm inlet and 100mm outlet sand cast iron S&S as per IS: 3989	Each	729.65	729.65	0.025
153272	100mm inlet and 100mm outlet sand cast iron S&S as per IS:1729	Each	575.17	575.17	0.025
153273	100mm inlet and 75mm outlet sand cast iron S&S as per IS: 3989	Each	677.39	677.39	0.025
153274	100mm inlet and 75mm outlet sand cast iron S&S as per IS:1729	Each	520.58	520.58	0.025
153280	Providing and fixing Poly Tetra Methylene Terephthalate (PTMT) Waste Coupling for wash basin & sink of approved quality, colour & make				
153281	Waste coupling 31mm of 79mm length and 62mm breadth weighing not less than 45gm	Each	99.33	99.33	
153282	Waste coupling 38mm of 83mm length and 77mm breadth, weighing not less than 60gm	Each	162.77	162.77	
153290	Providing and fixing PTMT Bottle Trap for Wash basin and sink :				
153291	Bottle trap 31mm single piece moulded with height of 270mm, effective length of tail pipe 250mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 270gm	Each	452.56	452.56	
153292	Bottle trap 38mm single piece moulded with height of 270mm, effective length of tail pipe 265mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 270gm	Each	669.60	669.60	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153300	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials/with snap fittings of approved quality colour and make, weighing not less than 105gm	Each	147.51	147.51	
153310	Providing and fixing PTMT towel ring trapezoidal shape 215mm long, 200mm width with a minimum distance of 37mm from wall face with concealed fittings arrangement of approved quality, colour and make weighing not less than 90gm	Each	139.38	139.38	
153320	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with C.P. brass screws with concealed fitting arrangement of approved quality colour and make				
153321	450mm long towel rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170gm	Each	333.85	314.76	
153322	600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than 190gm	Each	369.86	350.76	
153330	Providing and fixing PTMT shelf 440mm long, 124mm width and 36mm height of approved quality, colour and make weighing not less than 300gm	Each	391.93	372.83	
153340	Providing and fixing PTMT 15mm Urinal spreader size 95x69x100mm with ½ Inch BSP thread and shapes as per BIS specifications, weighing not less than 60gm	Each	119.40	119.40	
153350	Providing and fixing PTMT urinal cock 15mm nominal size 80mm long, 42mm high and 30mm wide with BSP female threads weighing not less than 48 gm of approved quality, colour and make	Each	94.12	94.12	
153360	Providing and fixing PTMT shower rose of approved quality with 15mm or 20mm inlet 100mm dia.	Each	117.35	117.35	
153370	Providing and fixing PTMT shower rose of approved quality with 15mm or 20mm inlet 150mm dia.	Each	200.97	200.97	
153380	Providing and fixing C.P. brass Soap Dish Holder having length of 138mm, 102mm wide, 75mm high with concealed fittings arrangements weighing approx. 110 gm	Each	128.43	128.43	
153390	Providing and fixing Shower rose (C.P.) brass with swivel joint having aprox. weight 270 gm	Each	304.69	304.69	
153400	Providing and fixing Towel rail (C.P.) brass 15mm dia x 450mm long having approx. weight 380 gm	Each	246.96	246.96	
153410	Providing and fixing Towel rail (C.P.) brass 15mm dia. x 600mm long having approx. weight 500 gm	Each	282.97	282.97	
153420	Providing and fixing C.P. brass Towel ring in trapezoidal shape having length of 215mm, width 200mm, minimum distance from wall 37mm with concealed fittings arrangements weighing approx. 90 gms	Each	597.13	597.13	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153430	Providing and fixing C.P. brass Shelf of 450mm length complete with glass, 124mm width & 36mm height, having approx. weight 300 gm (Without Glass)	Each	670.30	670.30	
153440	Providing and fixing C.P. brass Bottle trap 31mm, single piece moulded of height 270mm, effective length of tall pipe from centre of waste coupling 260mm, 77mm breadth water seal of minimum 25mm, weighing approx. 260 gm	Each	473.01	473.01	
153450	Providing and fixing C.P. brass Shower arm 15mm size with 15mm (1/2") B.S.P. threads, 195mm long with a bend of 45 (effective length of 210 mm) provided with a flange of 56mm dia and having approx. weight of 40 gm	Each	179.50	179.50	
153460	Providing and fixing C.P. brass Swivelling shower 15mm nominal size, 95mm long, 60mm dia. & having approx. weight of 45 gm with approx. 90 holes of 1.2 mm dia.	Each	423.42	423.42	
153470	Providing and fixing C.P. brass grating with openable lid :				
153471	Grating 100mm nominal dia. and 12mm high domed shape having weight not less than 25 gm	Each	102.89	102.89	
153472	Grating 125mm nominal dia. and 15mm high domed shape having weight not less than 40 gm	Each	51.79	51.79	
153480	Providing and fixing C.P. Brass :				
153481	Grating 150mm nominal size square, 18mm high with 100mm dia. of inner hinged round grating dome shape for total weight not less than 110gm	Each	98.25	98.25	
153482	Grating square slit type 150mm square with 8mm high & approx. total weight of 100 gm	Each	88.37	88.37	
153490	Providing and fixing PVC connector 15mm size with non-corrosive PTMT couplings in both ends				
153491	15mm dia. 300mm long	Each	67.54	67.54	
153492	15mm dia. 450mm long	Each	84.96	84.96	
153493	15mm dia. 600mm long	Each	105.29	105.29	
153500	Providing and fixing Swan neck pillar tap (C.P. Brass) 15mm dia. with swinging spout having approx. weight 1000 gm	Each	719.22	719.22	
153510	Providing and fixing Telephonic shower (C.P. Brass) 100mm dia with flexible PVC tube 1.5m long including C.P. hook	Each	524.59	524.59	
153520	Providing and fixing Shower arm (C.P. Brass) 15mm dia. x 225mm long	Each	210.32	210.32	
153530	Providing and fixing Basin/sink waste (C.P. Brass) coupling with chain and stopper complete :				
153531	a) Waste 32mm	Each	130.70	130.70	
153532	b) Waste 40mm	Each	171.21	171.21	
153540	Providing and fixing Liquid soap container (C.P. Brass) having approx weight 240 gm	Each	159.21	159.21	
153550	Providing and fixing Toilet paper holder (C.P. Brass) having approx. weight 250 gm	Each	250.83	250.83	
153560	Providing and fixing Coat hook 'J' type two way (C.P. Brass)	Each	156.27	156.27	
153570	Providing and fixing Soap dish (C.P. Brass) having approx. weight 220 gm	Each	123.17	123.17	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
153580	Supplying and fixing half round white glazed earthen ware drains 100mm dia. with cement sand mortar 1:3 mix and joints grouted with neat cement slurry of the matching colour :	metre	190.76	189.43	0.003
153590	Supplying and fixing half round white glazed earthen ware drains 150 mm dia with cement sand mortar 1:3 mix and joints grouted with neat cement slurry of the matching colour	metre	276.13	274.79	0.002
153600	Extra, if coloured half round drains are provided in lieu of white glazed half round drains with cement sand mortar 1:3 mix and joints grouted with neat cement slurry of the matching colour over items 153580 & 153590	metre	5.32	5.32	
153610	Providing and fixing 20mm diameter puff pipe, complete with brass perforated cap	Each	266.02	266.02	
153620	Providing and fixing 25mm diameter puff pipe, complete with brass perforated cap	Each	271.83	271.83	
153630	Providing and fixing S.C.I. trap with 10cm inlet and 10cm outlet of self cleansing design with S.C.I. screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors	Each	499.68	499.68	
153640	Providing and fixing 10cm inlet and 5cm outlet S.C.I. floor trap of self cleansing design with S.C.I. screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors	Each	499.68	499.68	
	PVC PIPES AND FITTINGS				
154010	Providing and fixing 110mm dia PVC soil, waste and vent pipes including jointing and cost of spun yarn and sand etc. complete	metre	203.23	203.23	
154020	Providing and fixing brackets comprising of aluminium painted standard steel clip and cast iron base for 110mm A.C. pipes, including cost of screws etc. and drilling of holes and making good the walls including cost of sand etc. complete	Each	78.88	78.88	
154030	Providing and fixing 110mmx110mmx110mm dia. PVC plain branch (single equal junction) of the required degree including jointing and cost of spun yarn and sand etc. complete	Each	119.01	119.01	
154040	Providing and fixing 110mmx110mmx110mm dia. PVC plain branch (single equal junction) of the required degree with access door inclusive of 3mm thick bitumastic felt washer and bolts and nuts, complete, including jointing and the cost of spun yarn and sand etc. complete	Each	132.40	132.40	
154050	Providing and fixing 110mmx110mmx110mmx 110mm PVC plain branch (double equal junction) of the required degree including jointing and cost of spun yarn and sand etc. complete	Each	150.62	150.62	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
154060	Providing and fixing 110mmx110mmx110mm dia. PVC plain branch (double equal junction) of the required degree with access door inclusive of 3mm thick bitumastic felt washer and bolts and nuts, complete including jointing and cost of spun yarn and sand etc. complete	Each	158.35	158.35	
154070	Providing and fixing 110mmx110mmx5mm PVC plain branch (single unequal junction) of the required degree with access door inclusive of 3mm thick bitumastic felt washer and bolts and nuts complete including jointing and cost of spun yarn and sand etc. complete	Each	127.75	127.75	
154080	Providing and fixing 110mmx110mmx5mmx5mm PVC branch double unequal junction of the required degree with access door inclusive of 3mm thick bitumastic felt washer and bolts and nuts, complete, including jointing and the cost of spun yarn and sand etc. complete	Each	158.35	158.35	
154090	Providing and fixing 110mm PVC offset including jointing and cost of spun yarn and sand etc. complete :				
154091	(a) With 10cm projection	Each	152.59	152.59	
154092	(b) With 15cm projection	Each	152.59	152.59	
154093	(c) With 30cm projection	Each	152.59	152.59	
154100	Providing and fixing 110mm PVC Plain bend of the required degree with access door inclusive of 3mm thick bitumastic felt washer, bolts and nuts, complete, including jointing and cost of spun yarn and sand etc. complete	Each	81.70	81.70	
154110	Providing and fixing 110mm PVC bend of the required degree with access door inclusive of 3mm thick bitumastic felt washer, bolts and nuts, complete, including jointing and cost of spun yarn and sand etc. complete	Each	158.65	158.65	
154120	Providing and fixing 110mm dia. PVC terminal guard including jointing and cost of spun yarn and sand etc. complete	Each	229.98	229.98	
154130	Providing and fixing 110mm PVC collar (loose socket) including jointing and cost of spun yarn and sand etc. complete	Each	63.19	63.19	
154140	Providing and fixing 75mm PVC soil, waste and vent pipes including jointing and cost of spun yarn and sand etc. complete	metre	122.22	122.22	
154150	Providing and fixing brackets comprising of aluminium painted steel clips and cast iron base for 75mm PVC pipes including cost of screws etc. and drilling of holes and making good the walls, including cost of sand etc. complete	Each	128.00	128.00	
154160	Providing and fixing 75mmx75mmx75mm PVC plain branch (single equal junction) of the required degree including jointing and the cost of spun yarn and sand etc. complete	Each	76.47	76.47	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
154170	Providing and fixing 75mmx75mmx75mm dia. PVC branch (single equal junction) of the required degree with access door inclusive of 3mm thick bitumastic felt washer including jointing and cost of spun yarn and sand etc. complete	Each	81.53	81.53	
154180	Providing and fixing 75mmx75mmx75mmx75mm PVC plain branch (double equal junction) of the required degree including jointing and cost of spun yarn and sand etc. complete	Each	81.43	81.43	
154190	Providing and fixing 75mmx75mmx75mmx75mm PVC plain branch (double equal junction) of the required degree with access door inclusive of 3mm thick bitumastic felt washer and bolts and nuts, complete including jointing and cost of spun yarn and sand etc. complete	Each	93.66	93.66	
154200	Providing and fixing 75mm dia. PVC offset including jointing and cost of spun yarn and sand etc. complete :				
154201	With 5cm projection	Each	157.65	157.65	
154202	With 10cm projection	Each	157.65	157.65	
154203	With 15cm projection	Each	63.20	63.20	
154204	With 30cm projection	Each	157.65	157.65	
154210	Providing and fixing 8cm dia. PVC Plain bend of the required degree including jointing and cost of spun yarn and sand etc. complete	Each	64.73	64.73	
154220	Providing and fixing 8cm PVC bend of the required degree with access door inclusive of 3mm thick bitumastic felt washer, bolts and nuts complete including jointing and cost of spun yarn and sand etc. complete	Each	74.06	74.06	
154230	Providing and fixing 75mm dia. PVC terminal guard including jointing and cost of spun yarn and sand etc. complete	Each	98.45	98.45	
154240	Providing and fixing 75mm PVC collar (loose socket) including jointing and cost of spun yarn and sand etc. complete	Each	44.32	44.32	
	LEAD PIPES				
155010	Providing and fixing 32mm diameter lead pipe	metre	278.34	278.34	
155020	Providing wiped solder joint to 32mm dia. lead pipe and fittings including cost of jointing materials	Each	327.90	327.90	
155030	Providing and fixing with porcelain / white vitreous china/coloured interconnection for flush pipe connection with WC pan (for low down cistern)	Each	440.41	440.41	
155040	Supplying 32mm dia. telescopic plastic flush pipe with unions etc.	Each	236.98	236.98	
155050	Supplying and fixing marble stone 20mm to 25mm thick in masonry or concrete as a purdha to urinal range etc. Stone to be machine cut and well polished on all faces and the edges to be moulded by semi circular rounding & polishing. Marble shall be any one of the following :				
155051	Makrana Chalk Doongri	Sqm	1075.33	1075.33	
155052	Makrana Dhobi Doongri	Sqm	950.30	950.30	
155053	Black Zebra Kishangarh	Sqm	1950.50	1950.50	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
155054	Bundi or Baroda Green Marble	Sqm	825.28	825.28	
155060	Supplying and fixing pipe as outlet or waste pipe to wash basins sink and bowl type urinals etc. complete including providing clamps to hold the pipe, making holes in masonry and making it good to original condition when not included in the item				
155061	50mm bore (2.9mm thick and 4.18 kg/metre weight minimum) M.S. galvanized for bowl urinals and sinks etc.	metre	344.19	344.19	
155062	32 mm bore (2.65mm thick and 2.61 kg/metre weight minimum) M.S. galvanized for wash basin etc.	metre	219.76	219.76	
155063	PVC 50 mm bore 1.7mm thick	metre	68.41	68.41	
155064	PVC 32 mm bore 1.4mm thick	metre	50.99	50.99	
155070	Supplying and fixing granite stone superior quality black 20mm to 25mm thick in masonry or concrete as a Purdah to urinal range etc. stone to be machine cut & well polished on all faces and the edges to be moulded by semi-circular rounding and polishing. .. contd. -	Sqm	2267.36	2156.12	0.050
	.. contd. - NOTE : The following percentage is to be added / deducted in case of granites other than superior quality black : i) For superior quality Red like "RBI" red add 15% extra; ii) For pink coloured granite deduct 25%; iii) For gray coloured granite deduct 18%.				
155080	Supplying and fixing cast iron brackets in walls for fixing flushing cistern, including making holes in masonry and making good the surface to its original condition. (when ordered separately)	Pair	152.39	152.39	0.020
155090	Providing and fixing aluminium drain boards 600mmx450mm	Each	587.06	587.06	0.030
155100	Providing and fixing Aluminium anodized towel rails with brackets :				
155101	a) 750mm x 20mm dia.	Each	116.65	116.65	
155102	b) 600mm x 20mm dia.	Each	99.23	99.23	
155110	Providing and fixing brass robe hook swinging type with 3 hooks as approved by Engineer-in-charge	Each	221.18	221.18	
155120	Providing and fixing air purifier container of anodized aluminium with brackets	Each	122.46	122.46	
155130	Providing and fixing self-closing taps of 15mm nominal size of :				
155131	Cast iron	Each	68.35	68.35	
155132	Malleable iron casting	Each	230.96	230.96	
155140	Providing and fixing Chromium plated brass waste plug for glazed ware sinks, basins etc. with long screwed shank and fly nut and fixed to unplasticised pipe including vulcanite rubber plug, brass chain and stud, complete of nominal bore :				
155141	32mm	Each	67.72	67.72	
155142	40mm	Each	93.85	93.85	
155143	50mm	Each	96.46	96.46	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
155150	Providing and fixing rubber or vulcanite waste plug with ring, including chromium plated brass chain, not exceeding 50cm in length and stay for nominal bore :				
155151	32mm	Each	170.51	170.51	
155152	40mm	Each	193.74	193.74	
155153	50mm	Each	216.97	216.97	
155160	Supplying fitting and fixing float valve for cisterns complete with polythene ball :				
155161	15mm dia. set	Each	214.35	214.35	
155162	20mm dia. set	Each	307.97	307.97	
155170	Providing and fixing Towel ring (C.P.) of approved make 170mm dia. having approx. weight 490 gm	Each	156.34	156.34	
155180	Providing and fixing Connector (C.P.) with coupling 15mm x 450mm long	Each	163.28	163.28	
155190	Providing and fixing Connector (C.P.) with coupling 15mm x 600mm long	Each	192.32	192.32	
155200	Providing and fixing Flush valve (C.P.) 25mm with 25mm size control cock having approx. weight 2.75 kg conforming to IS:9758-1981	Each	474.62	474.62	
155210	Providing and fixing Flush valve (C.P.) 32mm with elbow set ISI marked (IS:9758-1981)	Each	591.35	591.35	
155220	Providing and fixing Glass Shelf of approved make or equivalent of size 550mm x 130mm x 5.5mm thick (rounded end) with C.P. brass brackets & guard rails having approx. weight 2.4 kg	Each	1855.84	1855.84	
155230	Supplying, fitting and fixing soap tray of size 150mmx150mm vitreous (concealed type) with all necessary fittings etc. completed as directed by the Engineer-in-charge	Each	255.25	255.25	
155240	Supplying and fixing approved quality chromium plated shirt hooks (One unit of 4 hooks) with all necessary fittings etc. complete and as directed by the Engineer-in-charge	Each	144.64	144.64	
155250	P&F 127mm dia. C.P. steel Jali cockroach trap (CCTR-127) for gully floor or Nahani trap	Each	414.89	414.89	
155260	Supplying and fixing 150mmx150mm HCI / CI Tee for septic tank as a complete job	Each	570.99	570.99	
	MISCELLANEOUS				
156010	Cutting chases in brick masonry walls for following diameter sand cast iron/centrifugally cast (spun) iron or any other types of pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 12.5mm nominal size) including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand)				
156011	100mm dia.	metre	181.14	150.13	0.005
156012	75mm dia.	metre	128.87	107.72	0.004
156013	50mm dia.	metre	81.86	70.58	0.002

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
156020	Painting two or more coats, C.I. cistern with bitumastic or any other anti-corrosive paint inside and white/approved colour, paint over a coat of zinc chromate yellow primer (of approved quality) on the outside surface of the cistern, flush pipe, other fittings etc. to give an even shade complete for new work	Each	288.52	288.52	
156030	Re-painting one or more coats, C.I. cistern with bitumastic or any other anti-corrosive paint inside and white/approved colour, paint on the outside surface of the cistern, flush pipe, other fittings etc. complete including polishing of wooden seat and lid to give an even shade and cleaning of W.C. pan with acid, wherever necessary	Each	191.06	191.06	
156040	Re-painting C.I. one or more coats, cistern with synthetic enamel paint of approved colour brand and manufacture on the outside surface of cistern flush pipe, other fittings etc. to give an even shade complete	Each	83.70	83.70	
156050	Painting two or more coats on, sand cast iron/centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc. over a coat of primer (of approved quality) to give an even shade for new work				
156051	100mm diameter pipe	metre	26.12	26.12	
156052	Upto 75mm diameter pipe	metre	19.90	19.90	
156060	Re-painting one or more coats sand cast iron/centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings to give an even shade with paint of any colour such as chocolate, grey or buff etc.				
156061	100mm diameter pipe	metre	12.54	12.54	
156062	Upto 75mm diameter pipe	metre	9.39	9.39	
156070	Repainting bath tub of size 1700mmx730mmx 430mm (or of any other size) with enamel paint one or more coats to give an even shade	Each	294.63	294.63	
	New Items To Be Added By Zonal Railways				
157010					
157020					
157030					
157040					
157050					
157060					
157070					
157080					
157090					
157100					

CHAPTER - 16 : HORTICULTURE AND LANDSCAPING					
Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161010	Trenching in ordinary soil upto a depth of 60cm including removal and stacking of un-serviceable materials and then disposing of by spreading and neatly leveling with in a lead of 50m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/ and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure). (Additional lead, if any will be paid as per rates in the Earthwork Chapter)	cum	80.67	80.67	
161020	Supplying and stacking of good earth at site including royalty (earth measured in stacks will be reduced by 20% for payment)	cum	296.40	389.32	
161030	Supplying and stacking sludge at site in dry caked form from approved disposal works including royalty & all lead and lift etc. (sludge measured in stacks will be reduced by 8% for payment)	cum	418.14	708.52	
161040	Supplying and stacking at site dump manure / farm manure / animal dung manure from approved source; including all lead and lift etc. (manure measured in stacks will be reduced by 8% for payment)				
161041	Screened through sieve of I.S. designation 20mm	cum	105.79	105.79	
161042	Screened through sieve of I.S. designation 4.75mm	cum	126.07	126.07	
161060	Rough dressing the trenched ground including breaking clods	100 Sqm	46.73	46.73	
161070	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation	100 Sqm	151.89	151.89	
161080	Fine dressing the ground	100 Sqm	114.33	114.33	
161090	Spreading of sludge, dump manure / farm manure / animal dung manure and good earth in required thickness (cost of sludge, dump manure/farm manure or/ and good earth to be paid separately)	100 Sqm	16.38	16.38	
161100	Mixing earth and sludge or manure in proportion specified or directed. (Net total quantity of earth, sludge or manure after deduction of voids to be considered for payment)	cum	11.27	11.27	
161110	Supplying & Grassing with grass in rows 7.5cm apart in either direction including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing including supplying good earth, if needed (the good earth shall be paid for separately)				
161111	Doob Grass	100 Sqm	510.44	510.44	Not to be operated
161112	Calcutta Grass	100 Sqm	371.06	371.06	
161113	Mexican Grass	100 Sqm	318.80	318.80	
161114	Korean carpet grass	100 Sqm	411.72	411.72	
161115	Selection No.1 (Grass)	100 Sqm	719.51	719.51	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161116	Extra over item 161110 for grassing in rows at 5cm apart instead of 7.5cm apart in either direction	100 Sqm	347.75	347.75	Not to be operated
161120	Renovating lawns including weeding, cheeling the grass, forking the ground, top dressing with sludge or manure, mixing the same with forked soil, watering and maintaining the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing and disposal of rubbish as directed, -- Contd.	100 Sqm	1062.23	1062.23	
	 Contd. -- including supplying good earth, sludge or manure, if needed (cost of sludge/manure & good earth to be paid separately)				
161130	Uprooting rank vegetation and weeds by digging the area to a depth of 60cm removing all weeds and other growth with roots by forking repeatedly, breaking clods, rough dressing, flooding with water, uprooting fresh growths after 10 to 15 days and then fine dressing for planting new grass, including disposal of all rubbish with all leads and lifts	100 Sqm	1884.59	1884.59	
161140	Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20%: 1 part of stacked volume of sludge or manure after reduction by 8%) flooding with water, filling with earth, if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50m lift upto 1.5m complete (cost of sludge, manure or extra earth to be paid for separately)	cum	68.73	68.73	
161150	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately)				
161151	Holes / pits 1.2m dia. and 1.2m deep	Each	224.23	224.23	
161152	Holes / pits 60cm dia. and 60cm deep	Each	33.04	33.04	
161153	Holes / pits 45cm dia. and 60cm deep	Each	16.91	16.91	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161160	Half brick circular tree guard in 5.0/7.5 class designation bricks, internal diameter 1.25m and height 1.2m above ground and 0.20m below ground, bottom two courses laid dry and top three courses in lime mortar 1:2 (1 lime putty : 2 surkhi) and intermediate courses being in dry honey comb masonry as per design complete				
161161	(a) With F.P.S. bricks 5.0 class designation	Each	1650.69	1677.40	
161162	(b) With F.P.S. bricks 7.5 class designation	Each	1784.26	1677.40	
161170	Providing and fixing M.S. flat iron tree guard 60cm dia. and 2m height above ground level formed of 4 nos. 25mmx6mm and 8 nos. 25mmx3mm vertical M.S. flat riveted to 3 nos. 25mmx6mm M.S. flat iron rings in two halves, bolted together with 8mm dia. and 30mm long bolts including painting two coats with paint of approved brand and manufacture over a coat of priming, complete in all respects	Each	1917.59	1917.59	
161180	Providing and making tree guard 53cm dia. and 1.3m high as per design from contractor's own empty coal tar drums including providing and fixing 2 nos. M.S. sheet rings 50mmx0.5mm with rivets complete in all respects including painting inside and outside of tree guard with :				
161181	A coat of cal tar	Each	301.16	301.16	
161182	Two or more coats of ready mixed paint of approved quality shade over a priming coat	Each	367.43	367.43	
161190	Providing and making tree guard 53cm dia. and 2m high as per design from contractor's own empty coal tar drums including providing and fixing four legs 40cm long of 30mmx3mm M.S. flat riveted to tree guard and providing and fixing 2 nos. M.S. sheet rings 50mmx0.5mm with rivets complete in all respects including painting inside and outside of tree guard with :				
161191	A coat of cal tar	Each	464.60	464.60	
161192	Two or more coats of ready mixed paint of approved quality shade over a priming coat	Each	566.76	566.76	
161200	Edging with bricks (along kiaris, lawns or hedges etc.) laid dry including excavation, refilling, consolidating with hand packing and spreading neatly, surplus earth within a lead of 50m				
161201	7.5 class designation, F.P.S. bricks laid length wise	metre	39.64	37.32	
161202	5.0 class designation, F.P.S. bricks Laid length wise	metre	36.74	37.32	
161203	7.5 class designation, F.P.S. bricks, laid in tooth edged pattern at an angle of 60 degree with horizontal	metre	57.44	53.96	
161204	5.0 class designation, F.P.S. bricks laid in tooth edged pattern at an angle of 60 degree with horizontal	metre	53.09	53.96	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161210	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and levelling (cost of supplying earth and sludge or manure and mixing excluded). (payment for only net quantity of all the ingredients will be done)	cum	18.78	18.78	
161220	Excavation in dumped stones or malba / garbage / rubbish including stacking of serviceable/unserviceable material separately and disposal of unserviceable material for lead upto 50m & lift upto 1.5m; disposed material to be neatly dressed. (additional lead/lift to be paid extra as per earthwork chapter)	cum	157.73	157.73	
161230	Flooding the ground with water including making kiaries and dismantling the same	100 Sqm	79.98	79.98	
161240	Cutting, trimming and pruning, hedging of all types into proper shape & line as directed by Engineer In-charge including the removal and disposal of the cut materials. (measurement shall be of the total area of faces and top of the hedging, which has been trimmed)	Sqm	3.67	3.67	
161370	Supplying of seasonal flower saplings / seedlings including all lead & lift, carriage, handling etc.				
161371	Antirrhinum	Each	174.36	174.36	
161372	Phlox drumondii	Each	46.59	46.59	
161373	Nasturtium	Each	40.72	40.72	
161374	Salvia	Each	40.93	40.93	
161375	Balsam	Each	14.08	14.08	
161376	Calendula Officinalis	Each	55.96	55.96	
161377	Poppy	Each	29.21	29.21	
161378	Carnation	Each	35.09	35.09	
161379	Carnation (hybrid)	Each	35.09	35.09	
161460	Sowing and maintaining for a month of flower seeds including preparation of surface & watering, as required and manuring, nursing & removing grasses etc. from date of sowing (maintenance as required or as directed by engineer-in-charge)	Sqm per month	47.74	47.74	
161470	Supplying & sowing of seeds of specified varieties of trees/shrubs in a well fenced area or along a fencing as nominated by the Engineer's representative including preparation of bed, watering, manuring, applying insecticides etc. complete in all respects. The seed should be nursed for a period of 3 months from the date of sowing including supply of labour and material. Trees include Amaltas, Casuarina, Eucalyptus, Jacaranda, Jarul, Karanj, Ashoka, Phurush, Babla, Sisham, Sal, Segun etc.	Sqm	88.56	88.56	
161480	Maintenance of lawn, shrubs, hedge, trees etc. including watering, trimming, manuring, spraying insecticide and guarding as required. This includes supply of labour, tools & plants including materials				

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161481	Lawn	10sqm/month	30.69	27.32	
161482	Shrubs	Each/month	21.14	21.14	
161483	Hedge	m/month	19.01	19.01	
161484	Tree	Each/month	21.74	21.74	
161485	Shrubbery borders (group plantation)	Sqm/month	29.93	29.93	
161520	Uprooting weeds on or from station platforms, surroundings as well as slopes after loosening surface by raking	100 Sqm	384.72	384.72	
161530	Transplantation of marked Tree of various species and girth to the place shown by Engineering representative in the lead upto 1.5 km with all tools, plant, men and machinery and necessary preparation such as :				
161531	Preparation of earthen ball of tree roots of desired depth and diameter	Each	281.66	281.66	
161532	Unloading, lifting and transplanting tree from original place to new place directed by engineer including all arrangements, T&P, labour etc. for successfully completing the work (tree height to be minimum 1.5m)	Each	675.99	675.99	
161533	Excavating of pits of adequate size arranging loose soil, mixing of manure fertilizer insecticide etc. to ensure survival of the trees being transplanted maintain	Each	140.83	140.83	
161534	Maintenance of trees, i.e. watering manuring soil heaping spray of insecticide etc. till the sprouting and establishment of trees up to 6 months	Each/month	228.75	228.75	
161540	Supply & fixing grass tiles of grass selections no.1 or Mexican healthy and fresh grass free from weeds of 1' X 1' or bigger size tiles as required by engineer-in-charge	Sqm	24.19	24.19	
161550	Filling the earthen pots with good planting soil mixed with 25% manure including planting the sapling, watering & maintaining the pots for 3 months. The rate excludes pot, soil, manure & plants. Condition of the plant will be inspected at end of every month and suitable penalty imposed if the plant is not being maintained properly. The payment will be released @25% per month and balance will be paid after completion of three months. No penalty will be imposed, if the blooming period is over and plant dies being seasonal in nature. The top dia will be measured from inside and the bottom dia. & height from outside. (Tolerance is +/- 1.5cm)				
161551	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each/month	108.16	108.16	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161552	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each/month	132.38	132.38	
161553	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each/month	111.54	111.54	
161554	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each/month	113.23	113.23	
161555	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each/month	114.92	114.92	
161560	Filling cement sand / stone sand pots with good planting soil mixed with 25% manure including planting the sapling and watering & maintaining the pots for a period of 3 months. The rate excludes pots, soil, manure, plant. The top dia will be measured from inside and the bottom dia. & height from outside. Tolerance is +/- 1.5 cm				
161561	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each/month	109.29	109.29	
161562	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each/month	110.98	110.98	
161563	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each/month	112.67	112.67	
161564	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each/month	114.92	114.92	
161565	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each/month	116.61	116.61	
161570	Filling of polythene bags with earth, manure etc. as per instructions & directions of officer in charge and plantation of cutting/sowing of seeds/seedlings in polythene bags including all labour, T&P etc. but excluding the cost of polybags, earth, manure and seed / seedling / cutting complete as per direction of engineer in charge	100 bags	225.91	225.91	
161580	Laying of grass turf in proper level including scrapping of grass from the given site in turfs size 1ft.x1ft. approx. or desired size, transportation at site, watering, rolling, mowing, weeding and maintenance of the lawn upto a period of one month from the date of turfing as per direction of engineer in charge, with all labour, tools, and tackles complete. (50% payment after laying and 50% after one month)	Sqm	57.46	57.46	
161590	Landscaping and making mounds and giving shape as per the requirements (area to be measured from bottom of mound)	Sqm	28.18	28.18	
161600	Supply and planting of edge plants including cost of plants, transportation, labour, T&P etc. complete and maintenance for a period of one year from the date of plantation as per direction of O.I.C. (Mode of payment : 25% payment will be made after planting, 25% after six months, 25% after nine months and rest 25% after one year)	Each/ year	178.98	178.98	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161610	Maintenance of rose flower bed by doing all horticultural operations like hoeing, forking, breaking of clods, dressing, mixing of manure and fertilizers, watering, weeding, replanting of dead plants, cutting/trimming complete in all respects as per specifications and direction by engineer in charge including cost of labour with tools and tackles, but excluding the cost of manure, good earth, fertilizers, plants pesticides etc.				
161611	A) Rose bed upto 2000 sqm area at a place	Sqm/month	10.14	10.14	
161612	B) Rose bed above 2000 sqm area at a place	Sqm/month	7.61	7.61	
161620	Maintenance of seasonal potted plants and permanent potted plants by doing all horticultural operations like making mixture, plantation of plants, filling & re-filling, cutting, weeding, watering, staking, coloring, loading, unloading, rrangeing the pots within 100m radius and application of pesticides as and when required complete in all respects as per direction of engineer in charge including cost of labour with tools & tackles, ... contd. ---				
	... contd. --- a but excluding the cost of manure, soil, fertilizers, pesticides, plants, pots etc.				
161621	A) Up to 12" size pot/container	Each/month	27.05	27.05	
161622	B) Above 12" size pot/container	Each/month	38.32	38.32	
161630	Maintenance of cuttings & plants planted in polythene bags including watering, weeding, shifting, replacement etc. complete as per instruction of engineer in charge in all labour and T&P etc.	Each/month	37.19	37.19	
161640	Pruning / trimming of unwanted branches of trees and its disposal upto 100m to the area identified by the engineer in charge				
	Trees upto 2m height (average)	Each	45.12	45.12	
161650	Pruning / trimming of unwanted branches of trees and its disposal upto 100m to the area identified by the engineer in charge				
	Trees above 2m height (average)	Each	67.72	67.72	
161660	Supplying of all types & different varieties of seasonal (Summer, Rainy and Winter) flowers and vegetable seeds packets of 10 gm each of reputed company of national brands	Packet	6.10	6.10	
161670	Coloring of Cement Pots with Water-proofing Paint				
161671	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each	11.05	11.05	
161672	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each	13.52	13.52	
161673	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each	16.00	16.00	
161674	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each	20.22	20.22	
161675	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each	23.58	23.58	
161680	Coloring of Earthen Pots with Water-proofing Paint				
161681	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each	3.40	3.40	
161682	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each	4.54	4.54	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161683	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each	6.02	6.02	
161684	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each	7.74	7.74	
161685	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each	9.59	9.59	
161690	Supply and plantation of chlorodendran inerme hedge plants at a distance of 10cm to 15cm including watering and providing stacks, where required and maintenance upto 12 months from date of completion of plantation, complete with all labour and materials	m/month	8.54	8.54	
161700	Supply of cement pot at site as per direction of officer in charge				
161701	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each	25.56	25.56	
161702	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each	34.86	34.86	
161703	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each	46.47	46.47	
161704	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each	98.74	98.74	
161705	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each	232.31	232.31	
161710	Supply of earthen pot at site as per direction of officer in charge				
161711	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each	12.21	12.21	
161712	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each	13.95	13.95	
161713	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each	23.24	23.24	
161714	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each	34.86	34.86	
161715	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each	92.93	92.93	
161720	Supply of Hanging Basket (G.I wire plastic coated)				
161721	Height 15cm, Upper dia. 15cm & bottom dia. 10cm	Each	58.19	58.19	
161722	Height 20cm, Upper dia. 20cm & bottom dia. 12cm	Each	69.81	69.81	
161723	Height 25cm, Upper dia. 25cm & bottom dia. 15cm	Each	81.42	81.42	
161724	Height 30cm, Upper dia. 30cm & bottom dia. 20cm	Each	93.04	93.04	
161725	Height 45cm, Upper dia. 45cm & bottom dia. 30cm	Each	104.65	104.65	
161800	Supply of Insecticide/Pesticide				
161801	i. Lindane dust	Kg	34.96	34.96	
161802	ii. Methylparathion	Kg	23.35	23.35	
161803	iii. Indosulphon (Thiodan) 35 E.C	Litre	290.49	290.49	
161804	iv. Malathion 50 E.C.	Litre	267.26	267.26	
161805	v. Rogor 30 E.C.	Litre	290.49	290.49	
161806	vi. Nuvan 100 E.C.	Litre	557.98	557.98	
161807	vii. Dimecron 100 E.C	Litre	430.10	430.10	
161808	viii. Bavistin (100 gm packet)	Packet	81.42	81.42	
161809	ix. Dithan-M45.	Kg	209.30	209.30	
161810	x. Blitox	Kg	522.91	522.91	
161811	xi. Furadon. 3 G	Kg	69.81	69.81	
161812	xii. Thimet 10 G	Kg	64.00	64.00	
161813	xiii. Chlorpyriphos (For termite control)	litre	230.21	230.21	
161814	xiv. Durmet (for termite control)	litre	203.49	203.49	
161900	WEEDICIDE				
161910	i. Glyphosate	litre	290.84	290.84	
161911	ii. 2-4 D ethyl ester	litre	232.76	232.76	
161920	SUPPLY OF FERTILIZER/ORGANIC MANURE				
161921	i. Super phosphate	Kg	4.76	4.76	
161922	ii. Potash	Kg	5.92	5.92	
161923	iii. NPK 12:32:16 etc.	Kg	10.11	10.11	
161924	iv. Urea 46%	Kg	6.62	6.62	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161925	v. DAP	Kg	12.02	12.02	
161926	vi. Zinc Sulphate	Kg	43.09	43.09	
161927	vii. Rose mixture	Kg	23.35	23.35	
161928	viii. Neem Cake	Kg	8.19	8.19	
161929	ix. Mustard cake	Kg	34.90	34.90	
161930	x. Bone dust	Kg	34.90	34.90	
161931	xi. Neem shield	Kg	40.71	40.71	
161932	xii. Amonium Sulphate	Kg	10.05	10.05	
161933	xiii. Som/Shakti or equivalent (bio organic manure made of sugar by product etc.)	Kg	40.71	40.71	
161934	xiv. Sterameal/Agromeal or equivalent	Kg	29.10	29.10	
161940	HORMONES/PLANTS TONIC				
161941	a. Rootex/Seradex	gm	0.56	0.56	
161942	b. Agri Sorb plus	Kg	110.46	110.46	
161943	c. Planofix	Litre	523.14	523.14	
161950	DIFFERENT STONES REQUIRED FOR WATER FALL / LAND SCAPING				
161951	a. Supply of chilker/khokhal stone of different sizes as per instruction of engineer-in-charge. Delivery at site	MT	465.76	465.76	
161952	b. Supply of kali slate stone of different sizes as per instruction of engineer-in-charge. Delivery at site	MT	756.14	756.14	
161953	c. Supply of white marble stone of different sizes as per instruction of engineer-in-charge. Delivery at site	MT	988.44	988.44	
161954	d. Supply of khanger (Clinker) stone of different sizes as per instruction of engineer-in-charge. Delivery at site	cum	474.76	474.76	
161955	e. Supply of Haridwar pebbles of different sizes as per instruction of engineer-in-charge. Delivery at site	MT	1104.59	1104.59	
161960	SUPPLY OF BULBS (Fully rested)				
161961	a. Gladioli (different colors - American/Dutch hybrid of sizes 40mm to 50mm dia.)	Each	11.73	11.73	
161962	b. Narcissus	Each	9.41	9.41	
161963	c. Amaryllis	Each	14.05	14.05	
161964	d. Lily (Asiatic)	Each	17.54	17.54	
161965	e. Daffodil	Each	23.35	23.35	
161966	f. Lilium	Each	34.96	34.96	
161967	o. Ornithogellum	Each	34.96	34.96	
161968	h. Tulip	Each	46.58	46.58	
161969	i. Hyacinth	Each	52.38	52.38	
161970	j. Caladium	Each	23.35	23.35	
161971	k. Football lily	Each	34.96	34.96	
161972	l. Anemone	Each	34.96	34.96	
161973	m. Fressia	Each	40.77	40.77	
161974	n. Iris	Each	40.77	40.77	
161980	SUPPLY OF ROOTED CUTTINGS				
161981	a. Dahlia of different varieties	Each	46.58	46.58	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
161982	b. Chrysanthemum of different varieties	Each	21.02	21.02	
161983	c. Carnation	Each	29.15	29.15	
161984	d. Gerbera (hybrid suckers)	Each	52.38	52.38	
161990	Supply of Moss grass stick made of superior quality PVC pipe 20mm dia. & 3' long covered around with thick layer of moss grass with chicken wire mash	Each	69.81	69.81	
162000	Supply of Moss Grass Stick made of superior quality PVC pipe 20mm dia. & 4' long covered around with thick layer of moss grass with chicken wire mesh / synthetic mesh	Each	87.34	87.34	
162010	Supply of Moss Grass cleaned	Kg	69.81	69.81	
162020	Supply of water proofing cement paint of different color	Kg	87.17	87.17	
162030	Supply of polythene bags 100 micron for raising plants as per direction engineer in charge	Kg	139.50	139.50	
162040	Supply of HDPE - plastic agro shading net : color green/white/ black Shade 5-50%- 60%- 75% and width 3m	Sqm	75.61	75.61	
162050	Supply Of Plants/Trees {Notes - Supplying well grown plants-bushy and healthy, minimum height as specified (exposed height) including all lead & lift, carriage, handling etc.} (Size of pot will be upper inner dia. of pot)				
162060	Avenue Plants				
162061	Alstonia scholaris of height 150-180cm in earthen pots of size 25cm	Each	203.49	203.49	
162062	Alstonia scholaris of height above 180cm in earthen pots of size 25cm	Each	128.00	128.00	
162063	Azadirachta Indica (Neem) of height 120cm-135cm in big polybag of size 25cm-30cm	Each	46.69	46.69	
162064	Bassia latifolia (Mahua) of height 90cm-120cm in big polybag of size 25cm-30cm	Each	46.69	46.69	
162065	Bauhinia purpurea (Kachnar) of height 60cm-90cm in big polybag of size 25cm-30cm	Each	58.31	58.31	
162066	Bottle palm of height 150cm-165cm in earthen pots of size 30cm	Each	93.15	93.15	
162067	Butea frondosa (Flame of forest) of height 60cm-90cm in big polybag of size 25cm-30cm	Each	46.69	46.69	
162068	Caryota mitis (Fish tail palm) of height 120cm-135cm in each earthen pots of size 25cm	Each	87.69	87.69	
162069	Casuarina equisetifolia of height 120cm-135cm in big polybag of size 25cm-30cm	Each	104.77	104.77	
162070	Cassia fistula (Amaltash) of height 120cm-135cm in big polybag of size 25cm-30cm	Each	46.69	46.69	
162071	Cassia siamea of height 120cm-135cm in big polybag of size 25cm-30cm	Each	139.61	139.61	
162072	Chukrassia tabularis of height 150cm-165cm in big polybag of size 25cm-30cm	Each	145.42	145.42	
162073	China Palm of leaves 4-5 in earthen pots size 25cm	Each	69.92	69.92	
162074	Chorisia speciosa of height 120cm-135cm in big polybag of size 25cm-30cm	Each	93.15	93.15	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162075	Ceiba pentandra of height 120cm-135cm in big polybag of size 25cm-30cm	Each	116.38	116.38	
162076	Cycus revoluta (Cycus palm) of leaves 10-15 in earthen pots of size 30cm	Each	872.29	872.29	
162077	Cycus revoluta (Cycus palm) of leaves 20-25 in cement each pot size 35cm	Each	1744.57	1744.57	
162078	Cycus revoluta of leaves 35-40 in cement pots of size 45cm	Each	1976.87	1976.87	
162079	Dalbergia sissoo (seas am) of height 120cm-135cm in big each polybag of size 25cm-30cm	Each	145.42	145.42	
162080	Delonix regia (Gulmohar) of height 135cm-150 cm in big each polybag of size 25cm-30cm	Each	40.88	40.88	
162081	Erythrian Indica of height 90cm-120cm in big polybag of size 25cm-30cm	Each	87.34	87.34	
162082	Eugenia Jambolana (Jamun) of height 120cm-135cm in big polybag of size 25cm-30cm	Each	52.50	52.50	
162083	Ficus benjmina (green) of height 120cm-135cm in big polybag size 25cm-30cm	Each	105.70	105.70	
162084	Ficus bengalensis (Barged) of height 90cm-120cm in big polybag size 25cm-30cm	Each	105.12	105.12	
162085	Ficus bengalensis (variegated) of height 60cm-75cm in earthen pots size 30cm	Each	145.42	145.42	
162086	Ficus blackii (F.Vivion) well branched (Bushy) of height 120cm-135cm in earthen pots of size 30cm	Each	146.35	146.35	
162087	Ficus elastica Decora (Rubber plant) of height 45cm-60cm in each earthen pots of size 25cm	Each	58.31	58.31	
162088	Ficus infectoria (Pilkhan) of height 135cm-150cm in big polybag of size 25cm-30cm	Each	98.96	98.96	
162089	Ficus Lyrata of height 45cm-60cm in earthen pots of size 25cm	Each	116.38	116.38	
162090	Ficus regnold well branched (bushy) of height 120cm-135cm in cement pos of size 35cm	Each	88.27	88.27	
162091	Ficus religiosa (Peepal) of height 120cm-135cm in big polybag of size 30cm-35cm	Each	197.69	197.69	
162092	Ficus retusa well branched of height 120cm-135cm in earthen pots of 25cm	Each	117.31	117.31	
162093	Ficus shiela of height 120cm-135cm in big polybag of size 30cm-35cm	Each	290.61	290.61	
162094	Ficus starlite of height 60cm-75cm in earthen pots size 25cm	Each	157.96	157.96	
162095	Ficus starlite of height 90cm-105cm in cement pots of size 35cm	Each	210.23	210.23	
162096	Grevillea robusta (Silver Oak) of height 150cm-165cm in big polybag of size 30cm-35 cm	Each	41.81	41.81	
162097	Heterophragma adenophyllum (Marore fail) of height 120cm-135cm in big polybag of size 30cm-35cm	Each	76.66	76.66	
162098	Jacaranda mimosifolia of height 90cm-120cm in big polybag size of size 30cm-35cm	Each	146.35	146.35	
162099	Juniperus chinenses of height 120cm-135cm in cement pots of size 35cm	Each	146.35	146.35	
162100	Kigelia pinnta of height 90cm-120cm in big polybag of size 30cm-35cm	Each	146.35	146.35	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162101	Lagerstroemia flosreginae of height 120cm-135cm in big polybag of size 30cm-35cm	Each	146.35	146.35	
162102	Lagerstroemia thorelli of height 120cm-135cm in big polybag of size 30cm-35cm	Each	175.39	175.39	
162103	Lavestonia rotundifolia (Lavestonia palm) of leaves 4-5 in earthen pots of size 25cm	Each	291.54	291.54	
162104	Mangifera Indica (Mango of height 60cm-75cm in big polybag of size 30cm-35cm	Each	80.14	80.14	
162105	Melia azedarach of height 60cm-90cm in big polybag of size 30cm-35cm	Each	41.81	41.81	
162106	Michelia champa (Golden Champa) of height 60cm-75cm in earthen pots of size 25cm	Each	70.85	70.85	
162107	Milletia ovalifolia of height 60cm-70cm in big polybag of size 30cm-35cm	Each	47.62	47.62	
162108	Millingtonia hortensis of height 90cm-120cm in big polybag of size 30cm-35cm	Each	146.35	146.35	
162109	Mimusops elengi (Maulsri) of height 150cm-165cm in big polybag of size 30cm-35cm	Each	36.01	36.01	
162110	Nauclea Cadamba (Kadamba) of height 90cm-120cm in big polybag of size 30cm-35cm	Each	47.62	47.62	
162111	Nyctanthes arbortristis (Harsingar) of height 45cm-60cm in earthen pots of size 20cm	Each	47.62	47.62	
162112	Parkinsonia species of height 30cm-45cm in big polybag of size 30cm-35cm	Each	146.35	146.35	
162113	Phoenix roebelenii (Phoenix palm) of 10-12 leaves in earthen pots of size 25cm	Each	59.24	59.24	
162114	Pinus longifolia (Pinus) of height 90cm-120cm in cement pots of size 35cm	Each	291.54	291.54	
162115	Plumeria acutifolia of height 120cm to 135cm in gunny bags	Each	146.35	146.35	
162116	Plumeria alba ht. well developed of height 120cm-135cm in gunny bags	Each	146.35	146.35	
162117	Plumeria alba 3-4 branched in of height 150cm-180cm in gunny bags	Each	233.46	233.46	
162118	Pongamea glabra (Papdi) of height 120cm-135cm in big polybag size 30cm-35cm	Each	47.62	47.62	
162119	Polyalthia longifolia (Ashoka) of height 150cm-165cm in earthen pots of size 25cm	Each	36.01	36.01	
162120	Polyalthia pendula (Ashoka Pendula) of height 150cm-165cm earthen pots of size 25cm	Each	47.62	47.62	
162121	Pterospermum acerifolium (Kanak champaa) of height 150cm-180cm in big polybag of size 30cm-35cm	Each	88.27	88.27	
162122	Putranjiva roxburghii of height 60cm-75cm in big polybag of size 30cm-35cm	Each	152.16	152.16	
162123	Ravenala madagascariensis (Traveler palm) of height 60cm-90cm in earthen pots of size 30cm	Each	70.85	70.85	
162124	Saraca Indica (Sita Ashok) of height 60cm-75 cm in big each polybag of 30cm-35cm	Each	47.62	47.62	
162125	Schleichera trijuga (Kusum) of height 150cm-165cm in big polybag of size 30cm-35cm	Each	140.54	140.54	
162126	Spathodea campanulata of height 120cm-135cm in big polybag of size 30cm-35cm	Each	59.24	59.24	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162127	Tecoma Argentea of height 60cm-75cm in big polybag of size 30cm-35cm	Each	23.23	23.23	
162128	Any other kind of tree of height 120cm-150cm in earthen pots of size 25cm	Each	47.62	47.62	
162129	Any other kind of tree of height 210cm-240cm in gunny bag	Each	88.27	88.27	
162200	Shrubs				
162201	Acalypha species (Red/Green of height 30cm-45cm in earthen pots of size 25cm	Each	18.58	18.58	
162202	Acalypha species (red/green) of height 30cm-45cm in earthen pots of size 20cm	Each	18.58	18.58	
162203	Adenium obesum of height 45cm-60cm in earthen pots of 25cm	Each	128.93	128.93	
162204	Adenium obesum well branched specimen plant of height 60cm-75cm in earthen pots of size 30cm	Each	187.00	187.00	
162205	Allamanada cathartica of height 45cm-60cm in earthen pots of size 20cm	Each	18.58	18.58	
162206	Bauhinia tomentosa (Yellow) of height 30cm-45cm in earthen pos of size 20cm	Each	36.01	36.01	
162207	Beloperone species of height 30cm-45cm in earthen pots of size 20cm	Each	12.78	12.78	
162208	Bougainvillea (mix variety) of height 30cm-45cm in polybag of size 10cm-15cm	Each	24.39	24.39	
162209	Bougainvillea (mix variety) of height 30cm-45cm in earthen pots 20cm	Each	24.39	24.39	
162210	Bougainvillea (named variety, bushy plant full bloom) of height 45cm-60cm in cement pots of size 30cm	Each	59.24	59.24	
162211	Bougainvillea named variety, bushy plant full bloom of height 30cm-45cm in earthen pots of size 25cm	Each	88.27	88.27	
162212	Bougainvillea (named variety, bushy plant in full bloom, healthy plant of height 60cm-75cm in cement pot of size 35cm	Each	187.00	187.00	
162213	Budded roses of mixed variety, in bloom in polybag of size 30cm-35cm	Each	36.01	36.01	
162214	Budded roses (H.T.) named variety, in bloom in cement pots of size 25cm in polybag of size 30cm-35cm	Each	175.39	175.39	
162215	Calliandra species of height 30cm-45cm in earthen pots of size 20cm	Each	41.81	41.81	
162216	Cassia biflora of height 45cm-60cm in earthen pots of size 20cm	Each	128.93	128.93	
162217	Cassia biflora of height 30cm-45cm in polybags of size 30cm-35cm	Each	140.54	140.54	
162218	Cassia laviegata of height 45cm-60cm in earthen pots of size 20cm	Each	24.39	24.39	
162219	Cassaia laviegata of height 30cm-45cm in polybag of size 15cm-20cm	Each	18.58	18.58	
162220	Chinese lavender of height 30cm-45cm in earthen pots of size 20cm	Each	41.81	41.81	
162221	Chrysanthemum potted plant in full bloom of height 30cm-45cm in earthen pots of size 25cm	Each	88.27	88.27	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162222	Coleus blumii of height 30cm-45cm in earthen pots of 20cm	Each	59.24	59.24	
162223	Croton (broad leaves) 3-5 branched of height 90cm-120cm in cement pots of size 30cm	Each	216.04	216.04	
162224	Croton different varieties of height 30cm-45cm in earthen pots of size 25cm	Each	30.20	30.20	
162225	Croton different varieties of height 30cm-45cm in earthen pots of size 20cm	Each	30.20	30.20	
162226	Croton Petra (Banglari) of height 30cm-45 cm in earthen pots of size 20cm	Each	70.85	70.85	
162227	Cuphea chinensis of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162228	Duranta goldiana of height 30cm-45cm in earthen pots of size 20cm	Each	12.78	12.78	
162229	Duranta goldiana of height 30cm-45cm in earthen pots of size 15cm-20cm	Each	11.73	11.73	
162230	Duranta variegated of height 30cm-45cm in earthen pots of size 20cm	Each	11.73	11.73	
162231	Euonymus japonica (Variegated) of height 30cm-45cm in earthen pots of size 20cm	Each	23.46	23.46	
162232	Euphorbia caracasana (bronze colour leaves) of height 30cm-45cm in earthen pots of size 20cm	Each	127.88	127.88	
162233	Euphorbia leucoscephala (white/red) well branched (poinsettia white) of height 45cm-60cm in earthen pots of size 25cm	Each	325.34	325.34	
162234	Euphorbia milli of height 30cm-45cm in earthen pots of size 20cm	Each	134.73	134.73	
162235	Euphorbia milli Thaihybrid (large flowers) of height 30cm-45cm in earthen pots of size 20cm	Each	140.54	140.54	
162236	Euphorbia pulcherrima (dark red double bracts) well branched (poinsettia fireball) of height 45cm-60cm in earthen pots of size 25cm	Each	349.61	349.61	
162237	Euphorbia pulcherrima (Dark red) well branched (poinsettia red) of height 45cm-60cm in earthen pots of size 25cm	Each	349.61	349.61	
162238	Euphorbia pulcherrima (dwarf) well branched (poinsettia hybrid red) of height 30cm-45cm in earthen pots of size 20cm	Each	59.24	59.24	
162239	Excoecaria bicolor of height 45cm-60cm in earthen pots of size 20cm	Each	332.19	332.19	
162240	Ficus nitida (ficus panda) of height 30cm-45cm in earthen pots of size 20cm	Each	24.39	24.39	
162241	Galphimia gracilis of height 30cm-45cm in earthen pots of size 20cm	Each	24.39	24.39	
162242	Gardenia jasminoides of height 30cm-45cm in earthen pots of size 20cm	Each	24.39	24.39	
162243	Hamelia patens of well developed of height 30cm-45cm in each polybag	Each	18.58	18.58	
162244	Hibiscus rosa sinensis of height 45cm-60cm in earthen pots of size 20cm	Each	24.39	24.39	
162245	Hibiscus rosa sinensis of height 60cm-75cm in earthen pots of size 35cm	Each	53.43	53.43	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162246	Hibiscus Variegated of height 45cm-60cm in earthen pots of size 20cm	Each	24.39	24.39	
162247	Hibiscus Variegated of height 60cm-75cm in earthen pots of size 25cm	Each	47.62	47.62	
162248	Ixora singaporensis of height 30cm-45cm in earthen pots of size 20cm	Each	41.81	41.81	
162249	Ixora species of height 30cm-45cm in earthen pots of size 20cm	Each	41.81	41.81	
162250	Jacobinea carnea of height 30cm-45cm in earthen pots of size 20cm	Each	94.08	94.08	
162251	Jasminium sambac (Motia) of height 30cm-45cm in polybag of size 20cm	Each	24.39	24.39	
162252	Jatropha (red colour) of height 30cm-45cm in polybag	Each	41.81	41.81	
162253	Jatropha (red colour) of height 60cm-75cm in earthen pots of size 20cm	Each	94.08	94.08	
162254	Jsuticea ovata of height 30cm-45cm in earthen pots of size 20cm	Each	12.78	12.78	
162255	Lantanna depressa of height 30cm-45cm in earthen pots of size 20cm	Each	24.39	24.39	
162256	Lantanna depressa of height 20cm-25cm in polybag of size 15cm-20cm	Each	30.20	30.20	
162257	Lantana sellowiana in bloom of height 30cm-45cm in earthen pots of 15cm	Each	70.85	70.85	
162258	Largerstroemia indica of height 30cm-45cm in polybag of size 15cm-20cm	Each	36.01	36.01	
162259	Largerstroemia indica of height 60cm-75cm in earthen pot of size 20cm	Each	36.01	36.01	
162260	Limonium spectabilis of height 30cm-45cm in earthen pots of size 20cm	Each	36.01	36.01	
162261	Malpighia coccigera of height 30cm-45cm in earthen pots of size 20cm	Each	47.62	47.62	
162262	Manihot esculenta variegated (Tapioca) of height 30cm-45 cm in earthen pots of size 20cm	Each	53.43	53.43	
162263	Murra exotica of height 30cm-45 cm in polybag of size 15cm-20 cm	Each	24.39	24.39	
162264	Mussaenda crythrophylla of different colours of height 60cm-75cm in earthen pots of size 25cm	Each	88.27	88.27	
162265	Narium oleander (kaner) of height 30cm-45cm in polybag of size 15cm-20cm	Each	30.20	30.20	
162266	Narium Vareigated of height 45cm-60cm in earthen pots of each size 20cm	Each	38.33	38.33	
162267	Plumbago capensis of height 30cm-45cm in earthen pots of size 20cm	Each	82.47	82.47	
162268	Poinciana pulcherima of height 45cm-60cm in earthen pots of size 20cm	Each	18.58	18.58	
162269	Poinciana pulcherima of height 30cm-45cm in polybag of size 15cm-20 cm	Each	12.78	12.78	
162270	Russelia juncea of height 30cm-45cm in earthen pots of size 20cm	Each	47.62	47.62	
162271	Sansevieria trifasciata of height 30cm-45cm in earthen pots of size 20cm	Each	18.58	18.58	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162272	Tabernaemontana cororiaria (Chandni single) of height 45cm-60cm in earthen pots of 20cm	Each	18.58	18.58	
162273	Tabernacmontana coronaria (ChandniVaruegated) of height 45cm-60cm in earthen pots of 20cm	Each	18.58	18.58	
162274	Tabernacmontana coronaria (Chandni) of height 45cm-60cm in polybag of size 15cm-20cm	Each	18.58	18.58	
162275	Tecoma gaudichaudi of height 30cm-45cm in earthen pots of size 20cm	Each	53.43	53.43	
162276	Tecoma capnsis of height 30cm-45cm in earthen pots of size 20cm	Each	47.62	47.62	
162277	Thevetia nerifolia height well developed of height 30cm-45cm in polybag of size 15cm-20cm	Each	47.62	47.62	
162278	Thuja competa of height 75cm-90cm in earthen pots of size 30cm	Each	76.66	76.66	
162279	Cama (dwarf) of height 30cm-45cm in earthen pots of size 20cm	Each	70.85	70.85	
162280	Any other kind of shrubs of height 30cm-45cm in earthen pots of 20cm	Each	76.66	76.66	
162300	Foliage and Indoor Plants				
162301	Aglaonema species of height 30cm-45cm in earthen pots of size 20cm	Each	94.08	94.08	
162302	Aglaonema species of height 30cm-45cm in earthen pots of size 25cm	Each	105.70	105.70	
162303	Alpinia zerumbet variegated of height 30cm-45cm in earthen each pots of size 25cm	Each	36.01	36.01	
162304	Alocasia species of height 30cm-45cm in earthen pots of size each 25cm	Each	36.01	36.01	
162305	Anthurium species of height 30cm-45cm in earthen pots of each size 25cm	Each	465.76	465.76	
162306	Anthurium veitchii of height 30cm-45cm in earthen pots of size 25cm	Each	465.76	465.76	
162307	Aralia species of height 30cm to 45cm in earthen pots of size 25cm	Each	82.47	82.47	
162308	Aralia species of height 30cm to 45cm in earthen pots of size 20cm	Each	82.47	82.47	
162309	Areca palm 4-5 suckers of height 90cm-105cm in earthen pots of size 25cm	Each	140.54	140.54	
162310	Areca palm 4-5 suckers of height 120cm-135cm in earthen pots of size 25cm	Each	157.96	157.96	
162311	Areca palm 4-5 suckers of height 180cm-210cm in cement pots of size 35cm	Each	187.00	187.00	
162312	Araucaria cookii of height 30cm-45cm in earthen pots of size 20cm	Each	233.46	233.46	
162313	Aracaria cookii of height 75cm-90cm in earthen pots of size 25cm	Each	349.61	349.61	
162314	Asparagus mayerii of height 30cm-45cm in earthen pots of size 25cm	Each	99.89	99.89	
162315	Asparagus mayerii of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162316	Aspidistra elatior of height 30cm-45cm in earthen pots of size 25cm	Each	47.62	47.62	
162317	Dieffen bachia (different varieties) of height 30cm-45cm in earthen pots of size 25cm	Each	99.89	99.89	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162318	Dieffen bachia (different varieties) of height 30cm-45cm in earthen pots of size 20cm	Each	105.70	105.70	
162319	Dracaena (Mahatma) of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162320	Dracaena (Song of India) of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162321	Dracaena fragrance of height 45cm-60cm in earthen pots of size 25cm	Each	105.70	105.70	
162322	Dracaena green of height 30cm-45cm in earthen pots of size 20cm	Each	111.50	111.50	
162323	Dracaena marginata of height 30cm-45cm in earthen pots of size 20cm	Each	128.93	128.93	
162324	Dracaena reflexa of height 30cm-45cm in earthen pots of size 20cm	Each	128.93	128.93	
162325	Dracaena rosea of height 30cm-45cm in earthen pots of size 20cm	Each	123.12	123.12	
162326	Dracaena Victoria of height 30cm-45cm in earthen pots of size 25cm	Each	123.12	123.12	
162327	Dracaena wameckai of height 30cm-45cm in earthen pots of size 20cm	Each	128.93	128.93	
162328	Eranthemum species of height 30cm-45cm in earthen pots of size 20cm	Each	88.27	88.27	
162329	Double Ficus blackii (F. vivion), well branches (Bushy) of height 45cm-60cm in earthen pots of size 25cm	Each	94.08	94.08	
162330	Double Ficus regnold well branched (Bushy) of height 45cm-60cm in earthen pots of size 25cm	Each	99.89	99.89	
162331	Monestra mounted on 3' moss stick of height 30cm-45cm in earthen pots of size 25cm	Each	175.39	175.39	
162332	Money plant 3' moss stick (3 in one) in earthen pots of size 25cm	Each	157.96	157.96	
162333	Nephrolips species (Fern) of height 30cm-45cm in earthen pots of size 25cm	Each	105.70	105.70	
162334	Nephrolips species (Fern) in earthen pots of size 20cm	Each	99.89	99.89	
162335	Philodendron Janado of height 30cm-45cm in earthen pots of size 25cm	Each	99.89	99.89	
162336	Philodendron oxycardium mounted in 3' moss stick (3 in one) in earthen pots of size 25cm	Each	105.70	105.70	
162337	Philodendron sellum of height 30cm-45cm in earthen pots of size 25cm	Each	105.70	105.70	
162338	Rhapis excelsa (Rhapis palm) of height 45cm-60cm in earthen pots of size 30cm	Each	99.89	99.89	
162339	Scheafflera (Green) of height 30cm-45cm in earthen pots of size 20cm	Each	105.70	105.70	
162340	Scheafflera (Variegated) of height 30cm-45cm in earthen pots each of size 20cm	Each	99.89	99.89	
162341	Scheafflera high colour of height 30cm-45cm in earthen pots of size 20cm	Each	140.54	140.54	
162342	Scheafflera high colour of height 45cm-60cm in earthen pots of size 25cm	Each	140.54	140.54	
162343	Scheafflera clevelandii of height 30cm-45cm in earthen pots of size 25cm	Each	99.89	99.89	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162344	Syngonium (Butterfly variegated) of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162345	Syngonium variegated Mounted on 3 ' Moss stick (Three plants in one pot) in earthen pots of size 25cm	Each	105.70	105.70	
162346	Any other kind of foliage plants in well developed display of height 30cm-45cm in earthen pots of 30cm	Each	24.39	24.39	
162400	Climber Plants				
162401	Allamanda species of height 30cm to 45cm in earthen pots of size 20cm	Each	105.70	105.70	
162402	Bignonia venusta (Golden shower) of height 30cm-45cm in earthen pots of size 20cm	Each	128.93	128.93	
162403	Bougainvillea of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162404	Clerodendrum splendens of height 30cm-45cm in earthen pots of size 20cm	Each	88.27	88.27	
162405	Ipomea purpurea (Moming gory) of height 30cm-45cm in polybag of size 15cm-20cm	Each	24.39	24.39	
162406	Jasminum grandiflora (Chameli) of height 30cm-45cm in earthen pots of size 20cm	Each	88.27	88.27	
162407	Passiflora caerulea (Rakhi, bel) of height 30cm-45cm in earthen pots of size 20cm	Each	99.89	99.89	
162408	Petrea valubilis of height 30cm-45cm in earthen pots of size 20cm	Each	47.62	47.62	
162409	Quisqualis indica of height 30cm-45cm in earthen pots of size 20cm	Each	47.62	47.62	
162410	Tecoma grandiflora of height 30cm-45cm in earthen pots of size 20cm	Each	88.27	88.27	
162411	Vernania elaeagnifolia curtain creeper of height 30cm-45cm in earthen pots of size 20cm	Each	12.78	12.78	
162500	Ground Cover Plants				
162501	Altermanthera species of height 20cm-30cm in earthen pots of size 15cm	Each	70.85	70.85	
162502	Asparagus sprengerii in earthen pots of size 20cm	Each	70.85	70.85	
162503	Chlorophytum (Green) in earthen pots of size 20cm	Each	88.27	88.27	
162504	Chlorophytum (Variegated) in earthen pots of size 20cm	Each	94.08	94.08	
162505	Dianella variegated in earthen pots of size 20cm	Each	94.08	94.08	
162506	Ipomea (Golden leaves) in polybag of size 10cm-15cm	Each	9.29	9.29	
162507	Iresine herbstii of height 20cm-30cm in earthen pots of size 20cm	Each	24.39	24.39	
162508	Juniperus prostrata in earthen pots of size 20cm	Each	82.47	82.47	
162509	Ophiopogon green in polybag of size 20cm	Each	12.78	12.78	
162510	Ophiopogon variegated in polybag of size 20cm	Each	12.78	12.78	
162511	Portulacaria affra (Jade plants) in earthen pots of size 20cm	Each	47.62	47.62	
162512	Setcreasea purpurea in earthen pots of size 20cm	Each	88.27	88.27	
162513	Syngonium (Butterfly variegated) in earthen pots of size 20cm	Each	88.27	88.27	
162514	Tradiscantia in earthen pots of size 20cm	Each	30.20	30.20	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162515	Wadelia trilobata in polybag	Each	6.97	6.97	
162516	Zebrina pendula in earthen pots of size 20cm	Each	24.39	24.39	
162600	Hedge/Edge Plants				
162601	Acalypha species (Red/Green) of height 30cm-45cm in earthen pots of size 20cm	Each	30.20	30.20	
162602	Altemanthera species in earthen pots of size 15cm	Each	18.58	18.58	
162603	Bougainvillea species of height 30cm-45cm in earthen pots of size 20cm	Each	105.70	105.70	
162604	Clerodendrum inerme ht well developed of height 25cm-32cm in polybag	Each	99.89	99.89	
162605	Duranta goldiana in earthen pots of size 20cm	Each	88.27	88.27	
162606	Duranta goldiana in polybag	Each	9.29	9.29	
162607	Duranta variegated in earthen pots of size 20cm	Each	10.45	10.45	
162608	Iresine herbstii (Red grass) in earthen pots of size 20cm	Each	99.89	99.89	
162609	Hemelia patens of height 30cm-45cm in earthen pots of size 20cm	Each	88.27	88.27	
162610	Hibiscus rosa sinensis of height 45cm-60cm in earthen pots of size 20cm	Each	94.08	94.08	
162611	Lantana species of height 30cm-45cm in earthen pots of size 20cm	Each	82.47	82.47	
162612	Murra exotica of height 30cm-45cm in polybag	Each	30.20	30.20	
162613	Putranjiva roxburghii of height 30cm in polybag	Each	30.20	30.20	
162700	Cactus & Succulents				
162701	Agave (Green) Kamal Cactusi of height 30cm-45cm in earthen pots of size 25cm	Each	76.66	76.66	
162702	Cactus mixed variety medium of height 20cm-30cm in earthen pots of size 20cm	Each	175.39	175.39	
162703	Cactus specimen plants of height 20cm-30cm in earthen pots of size 20cm	Each	88.27	88.27	
162704	Furcaria variegated 10-12 leaves in height 20cm-30cm in earthen pots of size 25cm	Each	88.27	88.27	
162705	Furcaria variegated 15-20 leaves in height 20cm-30cm in earthen pots of size 30cm	Each	105.70	105.70	
162706	Kalanchoe species full bloom of height 20cm-45cm in earthen pots of size 20cm	Each	88.27	88.27	
162707	Nollina domestica (Phonytail plan) specimen plant of height 45cm-60cm in earthen pots of size 30cm / Traypots	Each	210.23	210.23	
162708	Rhoeo discolor of height 20cm-30cm in earthen pots of size 20cm	Each	128.93	128.93	
162709	Yucca (Gluko) of height 30cm-45cm in earthen pots of size 20cm	Each	128.93	128.93	
162710	Yucca green (ordinary) of height 30cm-45cm in earthen pots of size 20cm	Each	140.54	140.54	
162800	Seasonal and Other Plants				
162801	Amaryllis Lily full bloom in earthen pots of size 25cm	Each	88.27	88.27	
162802	Chrysanthemum potted plants in full bloom of height 30cm-45cm in earthen pots of size 20cm	Each	82.47	82.47	
162803	Chrysanthemum potted plants in full bloom of height 30cm-45cm in earthen pots of size 25cm	Each	88.27	88.27	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
162804	Dahila (named variety in full bloom) of height 30cm-45cm in earthen pots of size 20cm	Each	53.43	53.43	
162805	Dahila (named variety in full bloom) of height 30cm-45cm in earthen pots of size 25cm	Each	59.24	59.24	
162806	Marigold (inca variety in full bloom) of height 20cm-30cm in earthen pots of size 20cm	Each	88.27	88.27	
162807	Marigold (inca variety in full bloom) of height 30cm-45cm in earthen pots of size 25cm	Each	99.89	99.89	
162808	Nymphaea varieties (Lotus) bloom (Water plants) in earthen pots of size 25cm	Each	349.61	349.61	
162809	Seasonal potted plants in full bloom of height 30cm-45cm in earthen pots of size 20cm	Each	70.85	70.85	
162810	Seasonal potted plants in full bloom of height 30cm-45cm in earthen pots of size 25cm	Each	82.47	82.47	
162900	Other Items				
162901	Selection No. 1 grass carpet	Sqm	105.70	105.70	
162902	Hanging basket ordinary with plants in proper shape (small size)	Each	70.85	70.85	
162903	Hanging basket special with plants in proper shape (medium size)	Each	140.54	140.54	
162904	khurpa superior quality carbon steel of size 8"x3" with wooden handle as approved sample	Each	76.66	76.66	
162905	Cane watering 2 Gallon capacity made of G.I. sheet 22 gauge complete with shower	Each	233.46	233.46	
162906	Pneumatic sprayer made of brass instantaneous spray control by thumb fitted with fine mist spray nozzle small brass pump in tank for pressuring 1½ litre capacity	Each	1859.56	1859.56	
162907	Garden secateur roll cut made of steel sheet heavy duty made of high carbon steel fitted with brass sheet size 8" make Passi or Falcon as per sample approved	Each	256.69	256.69	
162908	Garden/Hedge shear heavy duty one piece metal and wooden handle reinforced full iron rod size 12" as per sample approved	Each	291.54	291.54	
162909	Garden sword with wooden handle heavy duty blade 30" long, wooden handle 8" and 4" inside as per sample approved	Each	134.73	134.73	
162910	Hand compression sprayer made of brass - all welded joints & tested to a specific pressure, brass forged fittings, 110 cm long delivery hose pipe all brass control trigger, 61cm long brass extension rod, fine mist spray nozzle etc. two adjustable carrying belts and a funned stainer as per sample approved				
162911	(i) 6 litres capacity	Each	4298.71	4298.71	
162912	(ii) 9 litres capacity	Each	4879.46	4879.46	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
163000	Foot sprayer complete with heavy iron frame, having double spring, brass cylinder and working parts, all brass balls 2m section hose & stainer 8mm continuous delivery hose with brass connection all brass control trigger 90cm long brass lauce with goose neck band and triple action adjustable nozzle as per sample approved	Each	5576.36	5576.36	
	New Items To Be Added By Zonal Railways				
164010					
164020					
164030					
164040					
164050					
164060					

CHAPTER - 17 : MISCELLANEOUS BUILDING WORKS					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171010	Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5 sqm and under including cutting the patch in proper shape and preparing and plastering the surface of the walls complete including disposal of rubbish to the dumping ground within 100m lead				
171011	With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	146.27	113.66	0.070
171012	With cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	157.35	116.64	0.070
171020	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls, cutting masonry for holdfasts embedding hold fasts in cement concrete blocks of 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) painting two coats of coal tar to sides of chowkhats and making good the damages to walls and floors to match existing surface, complete including disposal of rubbish to the dumping ground within 50m lead				
171021	Door chowkhats	Each	442.82	384.06	0.120
171022	Window chowkhats	Each	291.30	253.31	0.060
171023	Clerestory window chowkhats	Each	210.77	191.78	0.030
171030	Making the opening for door/window/clerestory window in brick masonry including dismantling, fixing chowkhats, cutting masonry and making good the damages to walls/flooring/jambs to match existing surface including disposal of malba to the dumping ground within 50m lead, complete	sqm	289.74	280.31	
171040	Renewing glass panes with putty and nails, wherever necessary				
171041	Float Glass panes of thickness 4mm	sqm	465.83	465.83	
171042	Float Glass panes of thickness 5.5mm	sqm	562.11	562.11	
171050	Renewing glass panes with wooden fillets and nails, wherever necessary				
171051	Float Glass panes of thickness 4mm	sqm	633.81	596.06	
171052	Float Glass panes of thickness 5.5mm	sqm	730.08	692.33	
171060	Supplying and fixing new wooden fillets with nails, wherever necessary				
171061	2nd class teak wood fillets	sqm	31.49	23.48	
171062	Hollock wood fillets	sqm	23.48	19.47	
171070	Renewal of old putty of glass panes (length)	metre	12.84	12.84	
171080	Refixing old glass panes with putty and nails	Sqm	166.87	166.87	
171090	Fixing old glass panes including cutting to suitable size with wooden fillets (excluding cost of fillets and nails etc.)	Sqm	145.92	145.92	
171100	Providing and fixing 16mm MS Fan clamps of standard shape and size in existing R.C.C. slab including cutting chase and making good with 1:2 C:S mortar and painting (two coats) exposed portion of the clamps complete	Each	148.78	148.78	0.016

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171110	Regrading terracing of mud phaska with tiles/brick by dismantling tiles/bricks, cleaning these before reuse, removing mud plaster, preparing the surface of mud phaska to proper slope, relaying plaster gobri leaping and tiles or bricks, grouted in cement mortar 1:3 (1 cement : 3 fine sand), replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material to the dumping ground (New tiles or brick to be paid separately) including all lead, lift etc.	Sqm	162.88	149.09	0.031
171120	Making opening or recesses in A.C. corrugated/semi corrugated sheet roofing of girth not more than 1m				
171121	Not exceeding 100 sq.cm. in area	Each	15.44	15.44	
171122	Exceeding 100 sq.cm. but not exceeding 400 sq.cm. in area	Each	19.00	19.00	
171123	Exceeding 400 sq.cm. in area	Each	34.36	34.36	
171130	Taking out wind ties from roof including cutting out rusted bolts, nuts etc. including lead upto lead 50m, lift & stacking in designated store	Kg	3.14	3.14	
171140	Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand/colour/ manufacture over priming coat of ready mixed zinc chromate yellow primer / ready mixed metallic primer of approved brand	metre	78.34	78.34	
171150	Pointing on brick work with mortar of white cement, lime putty, marble dust and stone sand in proportion ¼:1:1:1 (¼ white cement : 1 lime putty : 1 marble dust : 1 stone sand)				
171151	Flush pointing	Sqm	65.01	63.58	
171152	Ruled pointing	Sqm	68.60	67.17	
171153	Struck or weathered pointing	Sqm	83.55	82.12	
171160	Pointing on tile brick work with mortar of white cement lime marble dust and stone sand in proportion ¼:1:1:1 (¼ white cement : 1 lime putty : 1 marble dust : 1 stone sand)				
171161	Flush pointing	Sqm	88.35	86.15	
171162	Ruled pointing	Sqm	95.36	93.17	
171163	Struck or weathered pointing	Sqm	109.08	106.88	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171170	Providing and laying integral cement based treatment for water proofing on horizontal surface at all depths below ground level for under ground structures levels consisting of (i) 1st layer of 20mm thick approved rough stone slab over 25mm thick average base of 1:3 mortar (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 over levelling course (levelling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound (ii) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound as per manufacturer instructions (iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8cudm/sqm thoroughly embedded in the 2nd layer				
171171	Using rough kota stone	Sqm	903.88	784.39	0.342
171172	Using rough red sand stone	Sqm	542.74	423.25	0.342
171180	Providing and laying integral cement based treatment for water proofing on the vertical surfaces by fixing specified stone slab 20mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by the Engineer-in-Charge				
171181	Using rough kota stone	Sqm	878.54	852.90	0.443
171182	Using rough red sand stone	Sqm	517.40	491.76	0.443
171190	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of WC, kitchen and the like consisting of : (i) 1st course of cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS:2645 in recommended proportions including rounding of junction of vertical and horizontal surfaces. (ii) 2nd course of 20mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound (iii) 3rd course of blown or residual bitumen applied hot @1.7 kg/sqm & (iv) 4th course of 400micron thick PVC sheet with 100mm wide overlaps at joints pasted to each other with bitumen @ 1.7 kg/sqm	Sqm	450.58	400.75	0.158
171200	Providing and placing in position suitable PVC water stops conforming to IS:12200 for construction joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171201	Serrated with central bulb (225mm wide, 8-11mm thick)	metre	457.79	457.79	
171202	Dumb bell with central bulb (180mm wide, 8mm thick)	metre	429.92	429.92	
171203	Kickers (320mm wide, 5mm thick)	metre	417.14	417.14	
171210	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc. by applying cement slurry mixed with water proofing cement compound as per IS:2645 in layers a) 1st layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 lit/sqm, allowed to air cure for 4 hours, (b) 2nd layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 lit/sqm, allowed to air cure for 4 hours followed with water curing for 48 hours. Rate includes preparation of surface, treatment, sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. Rendering/plastering as protective layer, if required will be paid separately	Sqm	135.39	135.39	0.012
171220	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound as per IS:2645 in layers (i) After surface preparation, 1st layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 lit/sqm (ii) 2nd layer of fibre glass cloth while 1st layer is still green. Overlaps of joints of fibre cloth should not be less than 10cm (iii) 3rd layer of 1.5mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.67 lit/sqm and coarse sand @ 1.289 kg/sqm, allowed to air cure for 4 hours followed by water curing for 48 hours. (iv) 4th and final layer of brick tiling with cement mortar which will be paid for separately	Sqm	178.41	178.41	0.020
171230	Providing and laying integral cement based water proofing treatment including preparation of surface on roofs, balconies, terraces etc. (i) Grouting a slurry coat of neat cement @ 2.75 kg/sqm mixed with water proofing compound conforming to IS:2645 inc. walls upto 300mm height. (ii) Laying CC with brickbats 25mm to 40mm with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) mixed with water proofing compound over 20mm thick layer of cement mortar of 1:5 mortar mixed with water proofing compound to required slope, treating adjoining walls upto 300mm .. contd. --	Sqm	668.76	425.12	0.387

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	.. contd. -- height, rounding of junctions. (iii) Curing for 2 days & applying 2nd coat of cement slurry @ 2.75 kg/sqm mixed with water proofing compound. (iv) Finishing surface with 20mm thick jointless cement mortar of mix 1:4 (1 cement : 4 coarse sand) including laying of glass fibre cloth of approved quality in top layer of plaster mixed with water proofing compound and finishing surface with trowel with neat cement slurry and making pattern of 300mmx300mm square, 3mm deep with average thickness of 120mm and minimum thickness at khurra as 65mm				
171240	Supplying and applying bituminous solution primer on roof and or wall surface at 0.24 litre/sqm	Sqm	26.13	26.13	
171250	Water proofing of Overhead & Underground water tank by : Providing and fixing 12mm N.B.M.S. threaded nozzle of 75mm length upto reqd. depth in an approximate grid pattern at a spacing not exceeding 1.5m c/c on entire flooring, walls etc. followed by injecting water-proof Non-shrinkable Polymeric Grouting Compound (NSPGC) mixed with cement slurry @ 2% of weight of cement through nozzle under 2.5 kg/cm ² pressure. The grout should be pumped until it flows through all pores and voids thereby sealing them. The nozzles should be sealed with quick setting admixture. Thereafter two coats of Tapecrete acrylic based polymer water proofing compound (having solid content 30% ± 2, pH >7) admixed with cement in 1:2 ratio to be applied on the entire surface of tank, 12mm thick 1:4 plaster (to be paid separately) to be applied as a top coat.	Sqm	317.58	317.58	As per actual consumption at site
171260	Grading / Regrading of roof for water proofing treatment with :				
171261	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	cum	2974.58	1625.50	3.200
171262	Cement mortar 1:3 (1 cement : 3 coarse sand)	cum	5258.35	3033.73	5.100
171263	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	5258.35	3033.73	3.800
171270	Providing and fixing corner beading of 2nd class teak wood of size 60mmx65mm including screws etc. complete	metre	660.18	361.21	
171280	Providing and fixing fancy printed tiles of size 150mmx75mm or any other suitable length conforming to IS:15622 in border of baths and toilets on 12mm thick cement plaster 1:3 / chemical adhesive (1 cement : 3 coarse sand) jointed with matching pigment etc. complete	Sqm	459.01	405.62	0.009
171290	Providing and laying vitrified printed border tiles of size 400mmx100mm or any other size conforming to IS:15622 on mosaic floor after hacking with suitable floor adhesive like ultimate or unitiles etc. including finishing the joints, pointed with white cement slurry with suitable pigment to match the shade of the tiles etc. complete	Sqm	652.51	652.51	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171300	Providing and fixing stainless steel kitchen rack of suitable size of approved make	Kg	240.82	240.82	0.012
171310	Providing & fixing reflective paver blocks of approved sizes and design, conforming to IS:15658-2006, manufactured with wet cast vibration system in two layers, 10-15 mm thick top layer consisting of graded stone aggregate, silica sand and UV stabilised iron oxide Bayer colour and bottom layer with M-40 concrete having galvanised steel fibre reinforcement; to be fixed over uniform bedding of 50mm thick fine sand & joints filled with sand for thickness as :				
171311	60mm thick reflective paver blocks	Sqm	808.75	756.78	
171312	80mm thick reflective paver blocks	Sqm	859.28	807.30	
171320	Supplying chemical emulsion (Chlorpyrifos / Lindane emulsifiable concentrate of 20%) in sealed containers	Litre	229.98	229.98	
171330	Diluting and injecting chemical emulsion Chlorpyrifos/ Lindane E.C. 20% with 1% concentration for post constructional anti-termite treatment (Payment for chemical emulsion to be made separately)				
171331	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 excavating channel along the wall and rodding etc. and making good the same	metre	9.01	9.01	
171332	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling & plugging holes etc.	metre	13.18	13.18	
171333	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300mm apart including drilling 12mm diameter holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor	Sqm	68.90	68.90	
171334	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole	metre	10.12	10.12	
171335	Treatment at points of contact of wood work by chemical emulsion in oil or kerosene based solution @ 0.5 litres per hole by drilling 6mm dia. holes at downward angle of 45 degree at 150mm centre to centre and sealing the same	metre	36.09	36.09	
171340	Fixing holding down bolts to timber (labour rates only)	Each	20.68	20.68	
171350	Fixing holding down bolts in masonry (labour rates only)	Each	25.01	25.01	
171360	Re-caning seat and back of chair with contractor's plastic cane as per IS:5378	Each	131.95	131.95	
171370	Supply of boat with boatman on hire in day time up to 8 hours (minimum capacity of the boat to be 6 adult men)	Each	408.27	466.34	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171380	Supply of boat with boatman on hire in night time upto 8 hours (minimum capacity of the boat to be 6 adult men)	Each	612.69	699.80	
171390	Double bamboo mat walling with split bamboo reepers average dia 7.5cm on both sides, both ways at 45cms centres including nails and erection complete	Sqm	243.20	243.20	
171400	Supplying bullock cart on hire with 2 bullocks and one cartman per day of 8 hours (Including all consumables etc.)	Each	748.01	748.01	
171410	Selection of suitable site for drilling bore well/tube well by electrical resistivity method for all diameters	Each	794.93	794.93	
171420	Supplying, fitting, fixing & installing including boring of 40mm dia. hand tube well assembly India Mark-II having total depth of 50m with the following components as per IS:9301 : i) Hand pump (single acting) India Mark-II galvanised as per IS:9301-1990. ii) Brass strainer mesh type made of long slotted medium B class G.I. pipes with 80-mesh brass wire net wrapping around the perforated pipe and jacketed by 26 / 28 SWG brass perforated sheet. 40mm dia. (2 lengths of each 1.83m connected with G.I. socket). iii) C.I. cylinder with G.M. parts India Mark-II 65mm dia. x 0.45m long as per IS:9301-1990. iv) G.I. casing pipe 100mm dia. medium quality ISI marked 18m long. contd...	Each	46680.69	46680.69	
	contd..... v) G.I. pipe 40mm dia. medium quality ISI marked 28.35m long. vi) 32mm dia G.I. pipe (riser) medium quality ISI marked 17m long. vii) 12mm dia. bright bar electro galvanised connecting rod, 3m long each as per IS:9301 of length as required. viii) all accessories as per IS:9301-90 such as G.I. reducing socket 100mm x 40mm, C.I. plug cutter 40mm, base plate, M.S. nuts & bolts etc. The work also includes priming, development and testing of the yield (which should be sufficient enough) for seven days with all labour, material, tools and plants complete. ix) 40mm dia. G.I. ISI marked medium quality hanging pipe to the extent of 17 m. x) all accessories such as C.I. plug cutter 40mm, base plate, M.S. nuts & bolts etc., as required . The work also includes priming & development and testing of the yield (which should be sufficient enough) for seven days with cost of labour and material, all tools and plants complete in all respect				
171430	Extra / Less for sinking including drilling, supplying, fitting, fixing & installing of G.I. casing pipe 100mm dia. medium ISI marked over 18m	metre	1019.73	1019.73	
171440	Extra / Less for sinking, supplying, fitting, fixing & installing of G.I. riser pipe 32mm dia. medium ISI marked over 17m	Each	328.40	328.40	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171450	Supplying, boring, sinking & installation of 40mm dia. hand tube well pump assembly having total depth of 50m with the following components as per IS:9301 : i) Double guided head stroke / 80mm x 40mm deep tubewell hand pump no. 6 of complete. ii) Brass strainer mesh type "Dinco" or equivalent made of long slotted medium B class G.I. pipes with 80-mesh brass wire net wrapping around the perforated pipe and jacketed by 26 / 28 SWG brass perforated sheet. 40mm dia. 2 lengths each of 1.83m connected with G.I. socket. iii) All brass cylinder 65mm dia. 450mm long with brass plunger, plunger rod socket, all brass poppet/lower valve bucket leather complete. iv) G.I. Casing pipe ISI marked 80mm dia. medium quality 18m long. v) G.I. pipe ISI marked 40mm dia. medium quality 28.35m long. vi) 80mm x 40mm dia. G.I. Reducing socket of approved quality. vii) 12mm dia. bright bar electro galvanised connecting rod "Dinco" / "BJH" or equivalent, 3m long each with G.I. coupling of length as required at site of work	Each	49058.28	49058.28	
171460	Extra / Less for sinking including drilling, supplying, fitting, fixing & installing of G.I. casing pipe 80mm dia. medium ISI marked over 18m	metre	739.72	739.72	
171470	Extra / Less for sinking including drilling, supplying, fitting, fixing & installing of G.I. riser pipe 40mm dia. medium ISI marked over 17m	metre	337.61	337.61	
171480	Extra for providing Stainless Steel cylinder 65mm dia. instead of all brass cylinder	Each	-1626.10	-1626.10	
171490	Supplying, sinking & installation of 40mm hand pump no.6 ordinary hand pump set comprising the following of approved quality complete assembly having depth of 30m as per IS:9301. Hand pump no.6 with plunger, barrel, handle, head, piston rod, leather bucket, base, valve weight G.I. screws, bolts & nuts as per IS:1363/1967, leather seat valve, 40mm dia. C.I. cutter with steel plug, 40mm dia. G.I. sockets & 40mm dia. G.I. pipe medium quality v) Brass strainer mesh type "Dinco" or equivalent made of long slotted medium B class G.I. pipes with 80-mesh brass wire net wrapping around the perforated pipe and jacketed by 26 / 28 SWG brass perforated sheet. 40mm dia. x 2 lengths each of 1.83m connected with G.I. socket	Each	22658.66	22658.66	
171500	Extra for providing the following type of strainer instead of Brass strainer mesh type				
171501	Brass jacketed strainer 40mm dia. x 1.83m long	Each	585.16	585.16	
171502	Low Carbon Galvanised (LCG) jacketed strainer 40mm dia. x 1.83m long	Each	140.54	140.54	
171503	Stainless steel jacketed strainer 40mm dia. x 1.83m long	Each	1857.24	1857.24	
171510	Supplying, fitting & fixing in position extra strainer 40mm dia. & 1.83m long including drilling				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171511	Brass jacketed strainer	Each	1365.39	1365.39	
171512	Low Carbon Galvanised (LCG) jacketed strainer	Each	1143.08	1143.08	
171513	Stainless steel jacketed strainer	Each	2001.43	2001.43	
171514	Brass strainer mesh type	Each	637.83	637.83	
171520	Drilling of bore well for specified depth in all types of soil and rock mechanically with all contractor's tools, plants, material and labour upto 75m				
171521	For 150mm dia.	metre	208.37	208.37	
171522	For 200mm dia.	metre	436.82	436.82	
171523	For 250mm dia.	metre	524.18	524.18	
171524	Extra over 75m drilling for 150mm dia.	metre	41.67	41.67	
171525	Extra over 75m drilling for 200mm dia.	metre	87.36	87.36	
171526	Extra over 75m drilling for 250mm dia.	metre	104.84	104.84	
171530	Providing, supplying, lowering and fixing in bore G.I. B-Class perforated casing pipe 6mm thickness upto specified depth below ground level with all contractor's tools, plants, material and labour etc. complete				
171531	100mm internal pipe	metre	842.40	842.40	
171532	150mm internal pipe	metre	1099.28	1099.28	
171533	200mm internal pipe	metre	1171.23	1171.23	
171540	Providing supplying, lowering and fixing in bore unperforated MS casing pipe 6mm thickness upto specified depth below ground level with all contractor's tools, plants, material and labour etc. complete				
171541	100mm internal pipe	metre	959.31	959.31	
171542	150mm internal pipe	metre	1394.87	1394.87	
171543	200mm internal pipe	metre	2211.40	2211.40	
171550	Extra for using slotted or perforated MS casing pipe				
171551	100mm internal pipe	metre	68.76	68.76	
171552	150mm internal pipe	metre	91.29	91.29	
171553	200mm internal pipe	metre	113.83	113.83	
171560	Providing, supplying and fixing mild steel plug or screw cap of standard make on top of casing pipe on completed bore as directed by Engineer-In-Charge				
171561	100mm dia.	Each	82.93	82.93	
171562	150mm dia.	Each	118.94	118.94	
171563	200mm dia.	Each	166.56	166.56	
171570	Extracting G.I. Pipe 40/32mm dia. including strainers and depositing the same to the stores				
171571	Upto 50m deep	metre	44.46	44.46	
171572	More than 50m deep	metre	69.09	69.09	
171580	Taking out hand tube well pump or hand pump including head, handle, plunger, G.I. hanging pipe, cylinder, connecting rod etc. and depositing the same in the stores	Each	754.86	754.86	
171590	Supplying & fixing sun control film of approved quality and make over door/window/clery storey window	Sqm	222.02	222.02	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171600	Providing, driving and installing driven cast-in-situ reinforced cement concrete piles M-35 grade to carry safe working load not less than specified, including the cost of shoe and pile to be embedded in the pile cap as a complete job. Payment for steel reinforcement & cement will be made extra. Length of pile for payment shall be measured from top of shoe to the bottom of pile cap.				
171601	400mm dia. piles	metre	1678.70	1441.21	0.537 or as per desgin mix
171602	450mm dia. piles	metre	1995.05	1693.42	0.681 or as per desgin mix
171603	500mm dia. piles	metre	2339.76	1968.37	0.840 or as per desgin mix
171604	550mm dia. piles	metre	2471.91	2038.70	1.017 or as per desgin mix
171610	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of all length M-35 grade to carry a safe working load not les than specified including cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and pile to be embedded in the pile cap etc. all including removal of excavated earth with all lifts and leads. Length of pile for payment shall be measured upto bottom of pile cap. Payment for steel reinforcement & cement will be made separately.				
171611	300mm dia. piles	metre	1156.13	981.27	0.302 or as per desgin mix
171612	400mm dia. piles	metre	1351.20	1093.92	0.537 or as per desgin mix
171613	450mm dia. piles	metre	1844.84	1452.42	0.681 or as per desgin mix
171614	500mm dia. piles	metre	2033.87	1642.68	0.840 or as per desgin mix
171615	600mm dia. Piles	metre	2624.19	2086.33	1.209 or as per desgin mix

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171620	Boring, providing and installing cast-in-situ single under reamed piles with bulb dia. of 2.5 times the pile dia. of any length in M-35 grade to carry a safe working load not less than specified including cost of boring with bentonite solution and pile to be embedded in pile cap etc all complete. Length of pile for payment shall be measured upto the bottom of pile cap. Payment for steel reinforcement & cement will be made separately.				
171621	300mm dia. piles	metre	1690.85	1484.98	0.333 or as per desgin mix
171622	400mm dia. piles	metre	1973.18	1654.82	0.633 or as per desgin mix
171623	450mm dia. piles	metre	2133.53	1751.02	0.816 or as per desgin mix
171624	550mm dia. piles	metre	2310.14	1853.60	1.207 or as per desgin mix
171630	Extra over item above for providing additional bulb in double under reamed piles (only the quantity of extra bulbs to be paid)				
171631	300mm dia. piles	Each	1171.66	1060.18	0.141
171632	400mm dia. piles	Each	1291.86	1135.43	0.270
171633	450mm dia. piles	Each	1365.15	1181.74	0.347
171634	550mm dia. piles	Each	1504.47	1299.34	0.437
171640	Providing, driving and installing Pre-cast reinforced cement concrete piles of any length in M-35 grade to carry safe working load not less than specified with central through preformed hole with M.S. black pipe of dia 40mm for grouting with cement sand grouting of mix 1:2 (1 cement : 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 Length of pile for payment shall be measured from to of the shoe to the bottom of pile cap. Payment for steel reinforcement & cement will be made separately. (piles to be casted at site)				
171641	400mm dia.	metre	1950.52	1764.78	0.621
171642	450mm dia.	metre	2065.30	1829.35	0.784
171643	500mm dia.	metre	2192.92	1901.15	0.959
171644	550mm dia.	metre	2334.26	1980.67	1.168
171650	Vertical load testing 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 the direction of Engineer-in-Charge				
171651	Single pile upto 50 tonne capacity-initial test	Each Test	31935.44	31935.44	
171652	Single pile upto 50 tonne capacity-routine test	Each Test	18833.72	18833.72	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171653	Single pile above 50 tonne and upto 100 tonne capacity initial test	Each Test	45037.16	45037.16	
171654	Single pile above 50 tonne and upto 100 tonne capacity routine test	Each Test	29478.87	29478.87	
171660	Group of two or more piles (each pile capacity upto 50 tonne)				
171661	Initial test	Each Test	61414.31	61414.31	
171662	Routine test	Each Test	37667.45	37667.45	
171670	Cyclic vertical load testing of pile in accordance with IS Code of practice IS:2911 (Part IV) including preparation of pile head etc. for.				
171671	Single pile upto 50 tonne capacity	Each Test	18833.72	18833.72	
171672	Single pile above 50 tonne and upto 100 tonne capacity	Each Test	29478.87	29478.87	
171673	Group of two or more piles (each pile capacity upto 50 tonne)	Each Test	37667.45	37667.45	
171680	Lateral load testing of single pile in accordance with I.S. Code of practice IS:2911 (Part IV) for determining safe allowable lateral load on pile				
171681	Vertical load capacity upto 50 MT	Each Test	18833.72	18833.72	
171682	Vertical load capacity above 50 tonne and upto 100 tonne	Each Test	29478.87	29478.87	
171690	Providing & applying Pre-Construction Anti-Termite treatment to proposed structure, with application of Imidacloprid 30.5% SC @ 0.075% concentration mixed with water in ratio of 1:475, as per detailed specifications given in Indian Railways Standard Specifications, so as to create a chemical barrier below and around the structure by an approved agency. (plinth area/basement floor area shall be considered for payment)	Sqm	75.87	75.87	
171700	Post-construction anti-termite treatment to structures with application by trenching, drilling holes, injecting of Imidacloprid 30.5% SC @ 0.075% concentration mixed with water in ratio 1:475 alongwith spraying of woodwork with termiseal (oil based approved termiticide), as detailed in Indian Railways Standard Specifications, so as to create a chemical barrier below and around the structure by an approved professional agency. (Built-up area shall be considered for payment)	Sqm	69.17	69.17	
171710	Providing Rodent Management Service to colonies/stations/ offices/yards/rest house etc. by application of Bromadiolone Bait and closing of burrows alongwith monitoring fortnightly for one year, as per specifications given in Indian Railways Standard Specifications complete job including placing of rodent bait station boxes, traps etc. and removal of dead/trapped rodents. (the payment shall be released in twelve equal installments)	Sqm	6.96	6.96	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
171720	Providing general pest control service in colonies, offices, rest houses etc. to eliminate cockroaches, red and black ants, silver fish by applying cockroach gel (pyrethrum extract) and Deltamethrin Chemical repeated quarterly for one year as per specifications mentioned in Indian Railways Standard Specifications. (payment to be released in four quarterly installments)	Sqm	50.22	50.22	
172010	Supplying and applying leak proof polygrout to stop oozing water, with the help of NBMs threaded nozzles complete job including fixing of nozzles, injecting polygrout and sealing of nozzles with the help of sealing compound	Each	1968.52	1968.52	
172020	Supplying, erecting and fixing precast concrete reinforced bench with back rest. Bench shall consist of 2 nos. L shaped base support in natural cement colour of thickness 100 mm, back height 1000 mm, front height 450 mm, base width 620 mm and 5 nos. reinforced concrete planks in red colour and size of 1500 x 100 x 50mm and 1 no. reinforced concrete plank of 150 x 200 x 50mm; manufactured by using M-30 grade concrete & reinforced suitably; all parts to be joined with galvanised nuts and bolts of suitable size. All bolts to be sealed after assembly. Complete job to be done as per directions of Engineer Incharge.	Each	9550.90	9550.90	
172030	Providing and fixing glazed or unglazed full body homogenous anti-algal, all weather resistant ceramic landscaping/facia vitrified tiles (Cladding), conforming to tests as per IS:4457-2007, having water absorption < 0.5%, having sizes as 300mm x 300mm x 8mm, 200mm x 400mm x 9mm, 400mm x 400mm x 9mm and 300mm x 600mm x 10mm & 240mm x 60mm x 7.3mm in approved shade, colour & quality. Tiles to be laid on 20 mm average thick cement mortar bed of 1:4 (1 cement : 4 coarse sand) and joints filled with polymer based cementitious grout with all labour, material complete job.	Sqm	836.64	786.81	0.087

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
172040	Fabricating, supplying and installing stainless steel 3/4 seater benches with or without back rest of size and shape as per design and drawing approved by Engineer Incharge. Bench shall be manufactured from stainless steel 304 Grade with perforation made with turret punching machine and rolled on roller machine. Steel to be either laser cut or water jet cut (no shearing). Polishing to be done with automatic polishing machines to give mirror polish. All parts to be connected with suitable CNC made connectors and counter sunk screws etc. Welding to be done with suitable SS 304 Grade welding rods and treated with K-2 solution. Joints shall be finished ensuring that no welding marks are visible. Fixing at site should be done with suitable SS base plate and dash fasteners. Manufacturer shall submit maintenance manual and basic material test report for grade certification.	Kg	79.98	79.98	
172050	Extra over item 172040 for using SS 316 Grade stainless steel (to be used in corrosive coastal areas) instead of SS 304 Grade	Kg	8.91	8.91	
	New Items To Be Added By Zonal Railways				
173010					
173020					
173030					
173040					
173050					

CHAPTER - 18 : DISMANTLING AND DEMOLISHING				
Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
	CONCRETE			
181010	Demolishing lime concrete and disposal of material within 50m lead	cum	183.73	183.73
181020	Demolishing plain cement concrete including disposal of material within 50m lead			
181021	1:2:4 or richer mix with max. 20 mm coarse aggregate	cum	526.10	526.10
181022	Mix leaner than 1:2:4 with coarse aggregate larger than 20mm	cum	324.49	324.49
181023	Dismantling concrete kerb stones/rail level platform stones /concrete beams / slabs or similar light structural parts/ stones without appreciable damage including stacking	cum	565.59	565.59
181030	Demolishing R.C.C. work including cutting and stacking of steel bars and disposal of unserviceable material within 50m lead. (Extra payment for scraping, cleaning and straightening of bars to be made separately)	cum	767.52	767.52
181040	Extra over Item Nos. 181021 and 181050, if pavement breaker is used on orders of Engineer	cum	230.26	230.26
181050	Demolishing R.B. work including stacking of steel bars and disposal of unserviceable material within 50m lead (extra payment for scraping, cleaning and straightening of bars to be made separately)	cum	685.94	685.94
181060	Extra for scraping, cleaning, straightening reinforcement from R.C.C. or R.B. work	Kg	2.03	2.03
	MASONRY			
182010	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50m lead			
182011	In mud mortar	cum	152.18	152.18
182012	In lime mortar/lime cinder mortar	cum	183.73	183.73
182013	In cement mortar	cum	444.52	444.52
182020	Extra for removing mortar from bricks and cleaning bricks (stacks of cleaned bricks shall be measured)			
182021	From brick work in mud mortar	1000 nos.	1005.65	1005.65
182022	From brick work in lime mortar/lime cinder mortar	1000 nos.	1161.23	1161.23
182023	From brick work in cement mortar	1000 nos.	1452.87	1452.87
182030	Demolishing stone rubble masonry including stacking of serviceable material and disposal of unserviceable material within 50m lead			
182031	Dry masonry	cum	187.36	187.36
182032	In lime mortar	cum	250.13	250.13

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
182033	In cement mortar	cum	530.45	530.45
182040	Dismantling dressed stone work, ashlar face stone work, marble work, including stacking of serviceable and disposal of unserviceable material within 50m lead			
182041	In lime mortar	cum	316.38	316.38
182042	In cement mortar	cum	620.58	620.58
182050	Dismantling Precast concrete or stone slabs in walls, partition wall etc. including stacking within 50m lead			
182051	Thickness upto 40mm	Sqm	63.00	63.00
182052	Thickness above 40mm upto 75mm	Sqm	94.35	94.35
182060	Extra over basic Items for removing mortar from stones/blocks and cleaning stones/blocks (net quantity of stacks of cleaned materials will be measured, deduction @15% for voids in stones will be made)			
182061	In lime mortar	cum	104.79	104.79
182062	In cement mortar	cum	149.03	149.03
182070	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster/pointing including disposal of rubbish within 50m lead	Sqm	11.66	11.66
	FLOORING, PAVING, SKIRTING ETC.			
183010	Dismantling cement concrete / terrazzo flooring and/or underlayer excluding base concrete	Sqm	18.85	18.85
183020	Dismantling tile work in floors/dado/skirting laid in cement mortar/ chemical mortar/synthetic adhesive including stacking material within 50m lead	Sqm	24.86	24.86
183030	Dismantling stone slab flooring / dado / skirting laid in cement mortar/ lime mortar including stacking of serviceable material and disposal of unserviceable material within 50m lead	Sqm	57.72	57.72
183040	Dismantling Paver block/stone sett flooring laid in dry mortar/ cement mortar / bitumen, including stacking material within 50m lead	Sqm	46.14	46.14
183050	Extra for cleaning the stone sets with cement mortar & bitumen	100 nos.	217.04	217.04
183060	Dismantling including stacking of serviceable material and disposal of unserviceable material within 50m lead			
183061	Under layer of road of water bound macadam/stone soling etc.	Sqm	47.96	47.96
183062	Bituminous top layer of road	Sqm	93.61	93.61
	ROOFING, TERRACING ETC.			

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
184010	Demolishing brick tile covering (single layer) in terracing including stacking of serviceable material and disposal of unserviceable material within 50m lead	Sqm	23.10	23.10
184020	Demolishing mud phaska in terracing and disposal of material within 50m lead	cum	197.25	197.25
184030	Dismantling stone slab roofing including all coverings over wooden karries or R.C.C. battens (dismantling karries and battens to be paid separately) including stacking of serviceable material and disposal of unserviceable material within 50m lead	cum	769.59	769.59
184040	Dismantling jack arch roofing including lime/cement concrete in haunches and floors including cleaning and stacking of serviceable material and disposal of unserviceable material within 50m lead - plan area to be measured	Sqm	55.02	55.02
184050	Dismantling Single tiled roofing of any type with battens boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50m lead	Sqm	45.55	45.55
184060	Dismantling Double layer tiled roofing of any type with battens boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50m lead	Sqm	79.48	79.48
184070	Dismantling ridges, hips valleys and gutters etc. of any material and stacking the material within 50m lead	metre	6.63	6.63
184080	Dismantling roofing including ridges, hips valleys and gutters etc. and stacking the material within 50m lead			
184081	G.I. sheet	sqm	36.09	36.09
184082	Asbestos sheet	sqm	17.00	17.00
	WOOD WORK & PANELLING ETC.			
185010	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts in CC or masonry etc. complete and stacking within 50m lead	Each	109.26	109.26
185020	Taking out doors, windows, clerestory window, cupboard shutters only (steel or wood) including stacking within 50m lead	Each	41.48	41.48
185030	Dismantling wood work in frames, trusses, purlins and rafters/reepers including stacking the material within 50m lead			
185031	Of sectional area 40 sq.cm. and above	cum	977.27	977.27
185032	Of sectional area below 40 sq.cm.	cum	1100.52	1100.52

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
185040	Dismantling wooden trellis work excluding frames but including stacking the serviceable material within 50m lead	sqm	14.14	14.14
185050	Dismantling wooden ballies in posts and struts including cutting if required and stacking within 50m lead	metre	4.52	4.52
185060	Dismantling wooden boarding in lining of walls and partitions, sunshades etc excluding supporting members but including stacking within 50m lead			
185061	Upto 10mm thick	sqm	13.47	13.47
185062	Thickness above 10mm upto 25mm	sqm	17.16	17.16
185070	Taking out existing plywood (including laminations, if any) of any thickness from door, windows partitions, boards, furniture etc including fittings as beading and borders including stacking	Sqm	21.49	21.49
185080	Taking out existing broken glass panes from existing door, windows, partitions etc. including stacking/disposal	sqm	54.54	54.54
185090	Taking out existing laminated sheets (Sunmica etc.) from doors, windows, partitions boards etc.	sqm	16.98	16.98
	STEEL WORK			
186010	Dismantling steel work in single sections including dismembering & stacking within 50m lead in			
186011	R.S. joists./ Rails	Kg	0.72	0.72
186012	Channels, angles, tees and flats/ rounds or any other rolled shape	Kg	0.52	0.52
186020	Dismantling steel work and trusses upto 10m span and 5m height 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 50m lead	Kg	1.22	1.22
186030	Dismantling steel work and trusses upto 10m span and upto 5m height (height of lowest member from ground) in built up sections and stacking within 50m lead	Kg	0.82	0.82
186040	Extra over items 186020 & 186030 for dismantling trusses, rafters, purlins etc. of steel work for additional span length of one metre or part thereof beyond 10m	Kg	0.18	0.18
186050	Extra over items 186030 & 186040 for dismantling trusses, rafters, purlins etc. of steel work for additional height of one metre or part thereof beyond 5m	Kg	0.18	0.18
186060	Extra for marking of structural steel work required to be re-erected	Kg	0.96	0.96
186070	Dismantling pressed steel tanks, excluding staging, including stacking within a lead of 50m	sqm	72.68	72.68

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
186080	Dismantling, iron collapsible gate, rolling shutter, M.S. Grill, M.S. Gates, Palisade fencing etc.with post & stays including stacking of serviceable materials and disposal of unserviceable materials within 50m lead	sqm	51.62	51.62
186090	Taking out rail posts of any height and stacking within 50m. (demolishing of concrete/masonry, if required to be done, will be paid extra)	Each	69.27	69.27
	FENCING			
187010	Dismantling and stacking within 50m lead, fencing posts or struts/ rails including all earth work and dismantling of concrete etc. in base			
187011	'T' or 'L' iron or pipe, rail or RSJs	Each	56.72	56.72
187012	R.C.C. / Stone	Each	66.48	66.48
187020	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50m lead	Kg	7.95	7.95
	SANITARY AND WATER SUPPLY ITEMS			
188010	Dismantling asbestos cement pressure pipes / Non-pressure pipes upto 150mm dia. including excavation and refilling trenches after taking out the pipes and stacking the pipes within 50m lead	metre	71.39	71.39
188020	Dismantling G.I./ PVC pipes (external work) including excavation and refilling trenches after taking out the pipes, including stacking of pipes within 50m lead			
188021	Upto 40mm dia.	metre	33.91	33.91
188022	Above 40mm dia.	metre	38.07	38.07
188030	Dismantling rain water pipe of G.I., C.I., M.S., SCI, asbestos or PVC with fittings and clamps, including stacking the material within 50m lead			
188031	Dia. of 80mm and below	metre	16.33	16.33
188032	Dia. of above 80mm	metre	16.86	16.86
188040	Dismantling of flushing cistern of any size including stacking of serviceable materials and disposal of unserviceable materials within 50m lead	Each	208.71	208.71
188050	Dismantling of C.I. sluice and similar valves including stacking of serviceable materials within a lead of 50m			
188051	Upto 150mm diameter	Each	74.74	74.74
188052	Above 150mm diameter	Each	266.18	266.18
188060	Dismantling of spindle fire hydrant including stacking of serviceable materials within 50m lead	Each	160.81	160.81

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
188070	Taking out earthenware or stoneware/concrete pipes and stacking within 50m lead including excavation of trench and refilling and ramming complete. (demolishing of concrete/masonry, if required to be done will be paid extra)			
188071	Upto 15cm dia.	metre	8.20	8.20
188072	Above 15cm dia. upto 30cm dia.	metre	10.51	10.51
188073	Above 30cm dia.	metre	12.88	12.88
	MISCELLANEOUS ITEMS			
189010	Dismantling sleeper huts complete with roof and flooring etc.	sqm	84.21	84.21
189020	Dismantling expanded metal, BRC, IRC, welded mesh or similar materials incl. beading and stacking the serviceable material within 50m lead	sqm	16.56	16.56
189030	Dismantling cement asbestos, Celotax or other hard board ceiling or partition wall, sunshades etc including stacking of serviceable materials and disposal of unserviceable materials within 50m lead	sqm	12.49	12.49
189040	Dismantling gypsum partitions including framework (Aluminium/steel), and false ceiling including stacking of serviceable material and disposal of unserviceable material within 50m lead	sqm	14.25	14.25
189050	Dismantling hessian cloth or similar textile covering from ceiling or walling etc.	sqm	6.20	6.20
189060	Removing thatch only with binding materials including underlayer matting, from roof including stacking within a lead of 50m			
189061	Upto 150mm thick	sqm	6.39	6.39
189062	Above 150mm thick	sqm	7.55	7.55
189070	Removing tar felts or bitumen felts (any no. of layers) from roofs parapets etc. including disposal by burning	sqm	12.73	12.73
189080	Dismantling of old S.W. pipes including breaking of joints and partial bed concrete (brick or stone) as required, stacking of useful material near the site within 50m lead and disposal of unserviceable material into municipal / Railway dumps			
189081	100mm diameter	metre	37.71	37.71
189082	150mm diameter	metre	42.39	42.39
189083	200mm diameter	metre	45.37	45.37
189084	250mm diameter	metre	50.64	50.64
189085	300mm diameter	metre	56.68	56.68
189086	350mm diameter	metre	59.24	59.24

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
189090	Dismantling of manhole including R.C.C. top slab, C.I. cover with frame including stacking of useful material including bricks duly cleaned from mortar near the site and disposal of unserviceable materials into railway dumps within 50m lead including all excavation, refilling watering and ramming etc. complete			
189091	Rectangular manhole 90cmx80cm (inside dimensions) and 45cm deep	Each	842.01	842.01
189092	Rectangular manhole 120cmx90cm (inside dimensions) and 90cm deep	Each	1551.82	1551.82
189093	Rectangular arch type manhole 140cmx90cm (inside dimensions) and 2.45m deep	Each	4027.71	4027.71
189094	Circular manhole 122cm diameter (inside dimensions) and 1.68m deep	Each	5497.13	5497.13
189100	Extra for depth of manholes dismantled for :			
189101	Rectangular manhole 90x80cm (inside dimensions) and 45cm deep	10 cm	24.01	24.01
189102	Rectangular manhole 120x90cm (inside dimensions) and 90cm deep	10 cm	142.78	142.78
189103	Rectangular arch type manhole 140cmx90cm (inside dimensions) and 2.45m deep	10 cm	153.76	153.76
189104	Circular manhole 122cm diameter (inside dimensions) and 1.68m deep	10 cm	310.38	310.38
189110	Taking out European or Indian type WC, Squatting plate Complete with all parts including making good the walls complete, if required	Each	136.14	136.14
189120	Taking out Wash Hand Basin and sink complete with all parts including making good the walls complete, if required	Each	155.85	155.85
189130	Taking out flat back or angular lipped urinal basin. Complete with all parts including making good the walls complete, if required	Each	132.39	132.39
189140	Taking out Squatting Urinal plate Complete with all parts including making good the walls complete, if required	Each	141.78	141.78
	New Items To Be Added By Zonal Railways			
189210				
189220				
189230				
189240				
189250				
189260				
189270				

CHAPTER - 19 : BRIDGE WORKS - SUBSTRUCTURE					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
191010	Exploratory drilling of boreholes down to required depth, drilling of 150mm dia. boreholes in all type of soils except hard rock & large boulders (boulder core more than 30cm) including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata to be employed, where necessary in Dry area				
191011	0m to 10m	metre	929.20	929.20	
191012	10m to 20m	metre	1161.50	1161.50	
191013	20m to 30m	metre	1509.95	1509.95	
191014	30m to 40m	metre	1858.40	1858.40	
191015	40m to 50m	metre	2323.00	2323.00	
191016	50m to 60m	metre	2903.75	2903.75	
191017	60 m to 70 m	metre	3484.50	3484.50	
191020	Exploratory drilling of Boreholes down to required depth, drilling of 150mm diameter boreholes in all type of soils except hard rock and large boulders (boulder core more than 30cm), including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion / chieselling tool for advancing through occasional seams of hard strata to be employed where necessary in River bed area including standing/flowing water upto 2m depth with all necessary arrangements				
191021	0m to 10m	metre	4065.25	4065.25	
191022	10m to 20m	metre	4646.00	4646.00	
191023	20m to 30m	metre	5226.75	5226.75	
191024	30m to 40m	metre	5807.50	5807.50	
191025	40m to 50m	metre	6388.25	6388.25	
191026	50m to 60m	metre	6969.00	6969.00	
191027	60m to 70m	metre	7549.75	7549.75	
191030	Extra for 150mm dia. bore in hard Rock/large Boulder at all levels	metre	5807.50	5807.50	
191040	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes				
191041	0m to 10m	metre	4065.25	4065.25	
191042	10m to 20m	metre	4646.00	4646.00	
191043	20m to 30m	metre	5226.75	5226.75	
191044	30m to 40m	metre	5807.50	5807.50	
191045	40m to 50m	metre	6388.25	6388.25	
191046	50m to 60m	metre	6969.00	6969.00	
191047	60m to 70m	metre	7549.75	7549.75	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
191050	Conducting in-situ full size Plate Load Test (PLT) at selected location as per IS:1888 including making loading arrangements & casting of RCC/cast in-situ concrete footing as per codal provisions including excavation and refilling of trial pit				
191051	a. Plate size 30cm x 30cm	Each	23230.00	23230.00	
191052	b. Plate size 45cm x 45cm	each	32522.00	32522.00	
191053	c. Plate size 60cm x 60cm	Each	52267.50	52267.50	
191060	Conducting in situ Vane shear test for soil as per IS:4434	Each	11615.00	11615.00	
191070	Conducting SCPT for soil as per IS:4968	Each	11615.00	11615.00	
191080	Conducting DCPT for soil as per IS:4968	Each	11615.00	11615.00	
191090	Conducting determination of California Bearing Ratio as per IS:2720	Each	4065.25	4065.25	
191100	Taking out 100mm dia. & 450mm long undisturbed samples of soil from bore holes, including provision of air tight containers for packing and, labelling incl. transporting the samples to laboratory. Piston sampler shall be used for extracting undisturbed samples where necessary. Samples shall be collected as per IS:2720.	Each	3484.50	3484.50	
191110	Taking out 100mm dia. & 450mm long disturbed samples of soil from bore holes, including provision of air tight containers for packing, labelling and transporting the samples to laboratory. Samples shall be collected as per IS:2720.	Each	1161.50	1161.50	
191120	Conducting standard penetration test as per IS:2131 at approximate 1.5m intervals in bore holes, as directed by the Engineer in charge	Each	580.75	580.75	
191130	Collection of water samples at required intervals	Each	1161.50	1161.50	
191140	Conducting laboratory Tests on collected soil samples as per relevant IS code				
191141	Moisture Contents/Dry Density	Each	232.30	232.30	
191142	Atterberg Limit	Each	348.45	348.45	
191143	Specific Gravity	Each	203.26	203.26	
191144	Grain size analysis including Hydrometer analysis	Each	493.64	493.64	
191145	Direct Shear Test	Each	464.60	464.60	
191146	Natural Density	Each	348.45	348.45	
191147	Consolidation Test	Each	464.60	464.60	
191148	Unconfined Compression Test	Each	1161.50	1161.50	
191149	Tri-axial Test	Each	522.68	522.68	
191150	Conducting Laboratory tests on collected ROCK SAMPLES as per relevant IS code				
191151	Density Test	Each	232.30	232.30	
191152	Water Absorption & Porosity	Each	58.08	58.08	
191153	Hardness	Each	1161.50	1161.50	
191154	Unconfined Compression Test	Each	174.23	174.23	
191155	Point Load Test	Each	1161.50	1161.50	
191156	Modulus of Elasticity	Each	3484.50	3484.50	
191157	Abrasion Testing	Each	435.56	435.56	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
191160	Conducting chemical analysis of ground water samples to determine suitability for concreting and aggressiveness in relation to attack on concrete / reinforcement including determination of pH value	Each	609.79	609.79	
191170	Conducting chemical analysis of soil samples to determine aggressiveness in relation to attack on concrete / reinforcement including determination of pH value	Each	464.60	464.60	
191180	Preparation and submission of Final report giving complete and comprehensive record of investigations, laboratory test reports and calculations in approved format	Each	11615.00	11615.00	
	OPEN FOUNDATION				
192010	Earthwork in excavation for foundations and floors of the bridges, retaining walls etc. including setting out, dressing of sides, ramming of bottom, getting out the excavated material, back filling in layers with approved material and consolidation of the layers by ramming and watering etc. including all lift, disposal of surplus soil upto a lead of 300m, all types of shoring and strutting with all labour and material complete as per drawing and technical specification as directed by Engineer in charge				
192011	All kinds of soils	cum	246.93	176.19	
192012	Ordinary rock	cum	262.10	226.20	
192013	Hard rock (requiring blasting)	cum	347.99	313.14	
192014	Hard rock (blasting prohibited)	cum	312.10	276.21	
192020	Extra for the quantity of works, executed in or underwater and/or liquid mud including pumping out water as required	cum	20% of Basic Items	20% of Basic Items	
192030	Providing and laying Plain Cement Concrete 1:3:6 with graded stone aggregate of 40mm nominal size, in foundation and floors, retaining walls of bridges including mechanical mixing, .. contd. -	cum	2551.69	1338.66	2.200
	„ contd. - vibrating, pumping and bailing out water where ever required with all materials and labour complete but excluding the cost of cement and shuttering as per drawings and technical specifications as directed by Engineer				
192040	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M35 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in RCC raft foundation & Pile cap including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate or retard setting of concrete and/or improve workability without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement and shuttering shall be paid extra.	cum	2765.30	1496.36	4.22 or as per appd design mix.

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
192050	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M20 grade (Cast - in Situ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in Abutment, pier, wing walls and return walls of Mass cement concrete above RCC raft Including finishing complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement and shuttering shall be paid extra.	cum	2765.30	1496.36	3.44 or as per appd design mix.
192060	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M35 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the following Reinforced cement concrete structural elements up to height of 10m from foundation top level, including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate or retard setting of concrete and/or improve workability without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement & shuttering shall be paid extra.				
192061	Abutment & Pier	cum	2903.57	1571.18	4.22 or as per appd design mix.
192062	Wing wall and Return wall	cum	3041.83	1646.00	4.22 or as per appd design mix.
192063	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.	cum	3180.10	1720.82	4.22 or as per appd design mix.
192064	Approach slab at formation level, Dirt wall/ ballast wall at formation level	cum	3318.36	1795.63	4.22 or as per appd design mix.
192065	Extra for every increase of 1m or part thereof in the height above 10m & 20m	cum/m height	34.17	34.17	4.22 or as per appd design mix.

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
192070	Providing, driving and installing Bored cast in-situ Reinforced Cement Concrete piles of specified diameter and length below pile cap in M-35 grade Design Mix Cement Concrete, using 20mm graded crushed stone aggregate and coarse sand of approved quality, to carry a safe working load not less than specified, excluding the cost of casing pipe but including the cost of shoe and length of pile to be embedded in pile cap etc. complete, concreting by machine batching, machine mixing, scaffolding, using Admixture in recommended proportion (as per IS:9103), if approved in design Mix, placing with tremie pipe, chipping off of pile top to remove laitance concrete above cut off level etc., pumping and bailing out water with all labour material complete including crossing of tracks if required, as per approved drawing, specification and direction of the Engineer in charge. Length of the pile for payment shall be measured upto the bottom of pile cap excluding the mud mat. Payment for cement, casing pipe & reinforcement shall be paid extra.				
192071	1500mm diameter	metre	14965.17	14655.70	7.561 or as per appd design mix.
192072	1200mm diameter	metre	9824.46	9589.84	4.836 or as per appd design mix.
192073	1000mm diameter	metre	7799.27	7613.66	3.360 or as per appd design mix.
192074	800mm diameter	metre	4861.80	4738.06	2.180 or as per appd design mix.
192075	600mm diameter	metre	3221.13	3136.77	1.209 or as per appd design mix.
192080	Providing, fabricating and installing casing pipe for bored piles for all diameters with specified thickness of steel plate including all labour, materials, pumping and bailing out water wherever required, complete as per technical specifications as directed by Engineer in charge...contd. -	MT	51276.02	51276.02	
	.. contd. - This will include the weight of plate only and no cognizance will be given for the fittings, i.e. rivets and welding etc.				
192090	Extra for chieselling in addition to boring of piles, if chieselling is resorted to in hard rock or big stone boulders larger than 30cm depth by any means, i.e. by chiesel or manual chiesel and hammer method				
192091	1200mm diameter pile	metre	1611.15	1611.15	
192092	1000mm diameter pile	metre	1230.74	1230.74	
192093	800mm diameter pile	metre	930.89	930.89	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
192094	600mm diameter pile	metre	604.18	604.18	
192100	Conducting load testing of a single pile upto following capacity 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. with all labour, material, tool & plants, equipment, machinery, etc. complete as per drawing and specification, as directed by the Engineer				
192101	Initial load test upto 50 ton capacity pile	Each	32614.92	32614.92	
192102	Initial load test above 50 ton capacity upto 100 ton capacity pile	Each	45995.40	45995.40	
192103	Initial load test above 100 ton capacity upto 250 ton capacity pile	Each	77268.79	77268.79	
192104	Extra for every increase of 50 T in pile capacity or part thereof over 250 T	Each	11150.40	11150.40	
192105	Routine Load Test upto 50 ton capacity pile	Each	19234.44	19234.44	
192106	Routine Load Test above 50 ton capacity upto 100 ton capacity pile	Each	30106.08	30106.08	
192107	Routine Load Test above 100 ton capacity upto 250 ton capacity pile	Each	63557.28	63557.28	
192110	Lateral load testing of single pile in accordance with "IS Code of practice IS:2911 (Part-IV) for determining safe allowable lateral load of pile" with all labour, material, tool & plants, equipment, machinery, etc complete as per drawing and specification as directed by the Engineer				
192111	Piles with lateral load capacity of upto 10 ton	Each	19234.44	19234.44	
192112	Piles with lateral load capacity of above 10 ton & upto 20 ton	Each	30106.08	30106.08	
192113	Piles with lateral load capacity of above 20 ton	Each	39033.46	39033.46	
192120	Pulse Echo Test (PET) for integrity testing of piles with contractor's men, materials and machines. The rate includes cost of Inspection of site, preparation of pile head and any other unforeseen cost required for the test, .. contd. -	Each	33677.69	33677.69	
	.. contd. - submission of reports in triplicate as per satisfaction of the Engineer in Charge at site.				
	WELL FOUNDATION				
193010	Earth work in OPEN excavation in foundation of bridges, for placing of well curbs of all shapes and designs in all kinds of soil including taking out the excavated soil, levelling, ramming of bottom of excavation and trimming of sides, returning the soil in layers, consolidation, disposal of surplus soil within a lead of 300m, including all lift, dewatering, shoring and strutting complete as per technical specification and as directed by Engineer in charge. (compaction of surplus soil when led to the bank will be paid as per relevant item separately)	cum	82.41	49.02	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
193011	Extra to item for Earthwork in excavation over item no. 193010, if the excavation is carried out in Rock not requiring blasting	cum	125.61	72.18	
193012	Extra for Earthwork in excavation over item 193010, if excavation is carried out requiring controlled blasting or chieselling where required and permitted by the engineer in charge	cum	173.36	154.77	
193020	Providing and constructing Temporary Earthen Island / coffer dam for construction of well foundations, including bailing and pumping out of water, provision of sand bags, wooden ballies, sheet piling, earth, sand or any other suitable material, in water depth upto 1.5m, as required with all labour and material complete job				
193021	For well size (longest dimension) upto 10m	Each	80213.29	75061.15	
193022	For well size (longest dimension) above 10m	Each	462023.21	328560.11	
193030	Supplying, Fabrication, assembly, erection & placing in position the cutting edge of well curb with structural steel including MS sheet/Plates of specified thickness for pier/abutment complete as per approved plans and as per direction of Engineering In charge including all operations like cutting, bending, straightening, drilling holes, bolting, riveting, welding, threading, jointing of steel sections including outer and inner places liners and skin plates, stiffeners, hooks, bottle nuts, bond rods etc. as per design including all ascent, descents, leads, lifts, handing, re-handling, all other obstructions whatsoever, diverting channels, pumping / bailing out of water wherever required including cost of steel such as flats, sheets, angles, steel bars etc. with all labour and material as a complete job	MT	55159.73	55159.73	
193040	Dry/Wet Sinking of Circular Wells (Other than pneumatic method) in all types of strata except hard rock requiring ballasting, including bailing and pumping out water, removal of excavated soil with all labour and material required for sinking as per drawing and direction of the Engineer in charge, disposal of surplus soil upto 1 km lead in the adjoining bank/embankment (compaction to be paid separately under the relevant item)				
193041	From initial level of cutting edge & upto 3m depth	cum	46.14	61.24	
193042	From 3m to 10m depth	cum	63.91	79.00	
193043	From 10m to 20m depth	cum	96.53	119.34	
193044	From 20m to 30m depth	cum	223.83	276.71	
193045	From 30m to 40m depth	cum	569.42	703.95	
193046	From 40m to 50m depth	cum	1448.62	1790.84	
193047	From 50 m depth onwards	cum	3685.28	4555.89	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
193050	Dry/Wet Sinking of Twin D type Wells (Other than pneumatic method) in all types of strata except hard rock requiring ballasting, including bailing and pumping out water, removal of excavated soil, with all labour and material required for sinking as per drawing and direction of the Engineer in charge including disposal of surplus soil in the adjoining bank or within the zone including disposal of surplus soil in the adjoining bank or within the zone including compaction (compaction to be paid separately under the relevant item)				
193051	From initial level of cutting edge & upto 3m depth	cum	72.32	95.75	
193052	From 3m to 10m depth	cum	110.22	136.57	
193053	From 10m to 20m depth	cum	166.49	206.28	
193054	From 20m to 30m depth	cum	381.67	472.91	
193055	From 30m to 40m depth	cum	961.80	1191.73	
193056	From 40m to 50m depth	cum	2423.75	3003.16	
193057	From 50m depth onwards	cum	6107.84	7567.95	
193060	Extra for sinking of wells in hard rock requiring controlled blasting including cost of explosive, detonators, chieselling including all other ancillary works	cum	277.83	314.45	
193070	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M35 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in the following elements of well including finishing, using Admixtures in recommended proportions (as per IS:9103), .. contd. -				
	.. contd. - if approved in Mix design, to accelerate, retard setting of concrete, improve workability without impairing strength and durability complete as per drawings and technical specifications as directed by Engineer. Payment for cement, reinforcement and shuttering shall be paid extra.				
193071	In well Kerb	cum	2765.30	1496.36	4.22 or as per appd design Mix.
193072	In Steining of wells	cum	2765.30	1496.36	4.22 or as per appd design Mix.
193073	In Bottom plug for wells including arrangements for placing concrete under water with tremie or bottom opening skips	cum	3297.29	1828.50	4.22 or as per appd design Mix.
193074	In Intermediate/top plug without shuttering	cum	3791.89	2102.78	4.22 or as per appd design Mix.
193075	In Intermediate/Top plug with internal shuttering	cum	3791.89	2102.78	4.22 or as per appd design Mix.

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
193076	In Well cap and corbel, if provided	cum	3791.89	2102.78	4.22 or as per appd design Mix.
193080	Supplying and filling ordinary sand/excavated river bed material, if approved in between bottom plug and top plug in wells including all lead lift handling, re-handling, as a complete job. Sand should be simultaneously filled with water for three days to achieve full compaction so that further chances of shrinkage due to voids are eliminated. Note - If sand is brought from a source other than bridge site it shall be paid as NS item.	cum	2805.31	807.17	
	RCC BOX				
194010	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M35 grade (Cast in-Situ) in bottom/top slab, side walls, toe wall and sumps haunch filling head walls or any other component using 20mm graded crushed stone aggregate and coarse sand of approved quality of cast in-situ RCC box of size upto 5m (bigger inside dimension) including finishing, Admixtures in recommended proportions (as per IS:9103), if approved in Mix design, to accelerate, retard setting of concrete, improve workability without impairing strength and durability, complete as per drawings and technical specifications as directed by Engineer in charge. Payment for cement, reinforcement and shuttering shall be paid extra.	cum	2765.30	1496.36	4.22 or as per appd design Mix.
194020	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Mass Cement Concrete M-20 grade (cast in-situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in Drop and curtain wall and alike structures below bed level, including the cost of centring, shuttering and finishing complete as per drawings and technical specifications as directed by Engineer. Payment for cement & reinforcement shall be paid extra.	cum	2765.30	1496.36	3.44 or as per appd design Mix.
	MISCELLANEOUS				
195010	Deduct if 40mm graded stone aggregate is used in place of 20mm graded stone aggregate in any grade of concrete. (deduction to be made for quantity of concrete)	cum	232.30	44.14	
195020	Providing and applying two coats of coal tar or bitumen conforming to IS:3117-1965 on the top and sides of RCC box/slabs @ 1.70 kg/sqm after cleaning the surface with all labour and materials complete job as directed by the Engineer	Sqm	94.01	94.42	
195030	Centring and shuttering including strutting, propping etc. and removal of form for :				
195031	RCC Raft Foundation & Pile cap	Sqm	144.80	144.80	
195032	Abutment, pier, wing walls and return walls	Sqm	247.20	247.20	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
195033	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.	Sqm	244.27	244.27	
195034	Approach slab at formation level, Dirt wall / ballast wall at formation level	Sqm	144.80	144.80	
195035	In well Kerb & Steining	Sqm	250.80	250.80	
195036	In Intermediate/Top plug	Sqm	244.27	244.27	
195037	In Well cap and corbel, if provided	Sqm	144.80	144.80	
195038	In Bottom/top slab, side walls, toe wall and sumps haunch filling head walls or any other component	Sqm	247.20	247.20	
195040	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M-25 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in jacketing of piers and abutments from bottom of foundation upto a height of 10m including finishing for average 30cm thickness of jacketing. Payment for reinforcement, cement, wire mesh, shuttering, drilling of holes and insertion of rods will be made extra.	Sqm	1066.32	590.47	4.03 or as per appd design Mix.
195041	Drilling 32mm dia. holes for jacketing	metre	50.43	50.43	
195042	Inserting of dowel bars of specified dia. (cost of rods to be paid extra)	metre	4.75	4.75	
	New Items To Be Added By Zonal Railways				
196010					
196020					
196030					
196040					
196050					
196060					
196070					
196080					
196090					
196100					

CHAPTER - 20 : BRIDGE WORKS - SUPERSTRUCTURE : RCC					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
201010	Providing and laying in position Design Mix Cement Concrete M-40 grade machine mixed, machine vibrated and machine batched using 20mm graded crushed stone aggregate and coarse sand of approved quality for the Cast in-situ Prestressed (Post tensioned) concrete girder / Box girders for spans upto 18.3m (centre to centre) Including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate, retard setting of concrete, improve workability without impairing strength and durability complete as per specifications and direction of the Engineer incharge. Payment for Shuttering, Cement, Admixtures, reinforcement, HTS cables, sheathing, anchorage cones, stressing of cables and grouting of the ducts will be done extra.				
201011	With Soffit level upto 9m above Bed level	cum	3066.12	1800.67	4.30 or as per design mix
201012	With Soffit level From 9m above Bed Level to 12m above Bed Level	cum	3126.22	1861.93	4.30 or as per design mix
201013	With Soffit level From 12m above Bed Level to 15m above Bed Level	cum	3186.32	1923.19	4.30 or as per design mix
201014	Extra for increase in span by every 1m or part thereof for spans above 18.3m & upto 30.5m	metre/ cum or part there of	30.05	30.63	4.30 or as per design mix
201015	Deduct for casting of Slab instead of Girders (for any heights)	cum	120.20	122.52	
201020	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M-40 grade using 20mm graded crushed stone aggregate and coarse sand of approved quality for the Precast Prestressed (Post tensioned) concrete girder/Box (spans upto 30.5m) in contactor's casting yard, including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate, retard setting of concrete, improve workability without impairing strength and durability, complete as per specifications and direction of the Engineer. .. Contd. --	cum	2885.82	1616.89	4.30 or as per design mix
	.. Contd. -- Payment for Shuttering, Cement, Admixtures, reinforcement, HTS cables, anchorage cones, stressing of cables and grouting of the ducts will be done extra. Launching of girder/slab in position is not included in this item.				
201021	Deduct for casting of Slab instead of Girder/Box	cum	120.20	122.52	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
201030	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M-40 grade using 20mm graded crushed stone aggregate and coarse sand of approved quality for the Precast Prestressed (Pre tensioned) concrete girder (spans upto 9.1m) in contractor's casting yard, including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design, to accelerate, retard setting of concrete, improve workability without impairing strength and durability, complete as per specifications and direction of the Engineer. Payment for Shuttering, Cement, Admixtures, reinforcement, HTS cables, sheathing, anchorage cones, stressing of cables and grouting of the ducts will be done extra. Launching of girder/slab in position is not included in this item	cum	2885.82	1616.89	4.30 or as per design mix
201031	Deduct from 201030 for casting of Slab instead of Girder	cum	120.20	122.52	
201040	Design, manufacturing, supplying and fixing in position elastomeric bearing pads under prestressed concrete girder, for Pre-cast as well as cast-in-situ girders as per approved drawing. The rate shall include cost of load test of one no. bearing from Railway approved firms and all fixing materials, equipments, machineries, labour, taxes, loading, unloading, leading, lifting etc. complete. Rates include getting the drawing approved from Railway and cost of inspection during manufacturing from railway approved organization. (Note : 1. The rate is for finished item complete and paid only after fixing in position below the girder. 2. The volume shall be given in the drawing and no deduction shall be made for inspection, test, etc.)	cu.cm.	1.38	1.38	
201050	Providing and fixing in position of standard preformed sealed and slab type or strip seal elastomeric type expansion joints for Railway bridge or Road Over Bridges as per approved drawings and latest MOST/IRC specifications. The rates are inclusive of supplying, fixing with contractor's own materials, e.g. inserts, bolts, socket tubes, Neoprene sheet/cap etc., equipments, machineries, labour, all taxes, royalty, all lead & lifts, transport, testing, surface preparations, complete				
201051	For 80mm expansion	metre	18874.28	18874.28	
201052	For 120mm expansion	metre	25152.25	25152.25	
201053	For 160mm expansion	metre	31440.21	31440.21	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
201060	Load testing of one or more spans of bridge as selected by the Engineer as per approved load test procedure following relevant IS/IRC/Railway codes with contractor's labour, deflection measuring instruments, loading materials, recoding and analyzing the load testing results including all lead & lift, etc. complete as required. The rates are all inclusive and will be paid after load test is finished and girder is cleared of the kentledges/loading material etc. The load shall be 1.25 times the stipulated design load, based on design load & not span				
201061	For Span design load upto 100 MT	Each	87640.73	68816.59	
201062	Extra for every increase of 100 MT or part thereof in the span load capacity upto 800 MT	Each 100 MT	85803.96	67898.20	
201070	Providing, fabricating & fixing in position to exact design profiles, prestressing H.T.S. cables of all classification made from Low Relaxation strands conforming to IS:14268-1995 in Prestressed Concrete girders/slabs etc. including supplying, cutting, making into cables with necessary spacers, colour coding, protecting with water soluble oil at all time, anchoring of cables, supplying and placing spiral corrugated type galvanized metal steel ducts sheathing made up of Cold Rolled Cold Annealed (CRCA) mild steel conforming to IS:513 of required diameter/ thickness, vent pipe, placing, bending, routing, fixing, stressing & grouting of cable ducts with cement grout, .. Contd. --	MT	114863.48	112367.95	As per actual consumption at site
	.. Contd. --- Anchorage sets in required number with provision for future prestressing, if any including all lead and lift with contractor's own materials, labour, equipments etc. complete as per drawings & specifications. Rate also includes covering anchorage pads with epoxy mortar of approved quality to avoid corrosion. Cement for grouting to be paid separately.				
201071	Deduct for not using CRCA sheathing & other related items for pretensioned members from item 201070	MT	23708.83	23708.83	
201072	Extra for using HDPE sheathing instead of CRCA sheathing	MT	131.25	131.25	
	New items To Be Added By Zonal Railways				
202010					
202020					
202030					
202040					
202050					
202060					
202070					
202080					
202090					
202100					

CHAPTER - 21 : BRIDGE WORK - SUPERSTRUCTURE STEEL

Note - Items in this chapters are for works not requiring traffic block unless otherwise specified in the relevant item. All items are for clear span upto 45.7m unless otherwise specified.

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
211010	Supplying of all types of structural steel conforming to Fe 410 B of IS:2062, fabrication, assembling, erection / slewing / end launching of steel girders (not requiring traffic block) upto 45.7m span on sub-structure including provision of trolley refuges, if required complete as per approved drawing including one coat of Zinc chrome primer to 1S:104 & one coat of Zinc Chrome Red Oxide to IS:2074 and painting as per IRS-B-1 on all members (detailed fabrication and erection drawings & launching methodology will be prepared and got approved by the contractor from Railway). Rate includes fabrication of all the types of battens, bracings, ties, stiffeners, packing, diaphragms, shop rivets / welding, T&F bolts, drifts, shop welds, templates, jigs, fixtures, back up supports, accessories, transporting various components from fabrication shop to site, .. contd....			
	 Contd. - including loading, unloading, lift and taxes complete, assembly of girders' on- drifts/bolts, field riveting/welding, assembling of temporary support for side slewing, raising of girders to the bed block level, providing sliding arrangements and slewing the girder in position, lowering of girder on bearings and bed plates, grouting holes in the bed block for fixing of HD bolts/anchor pins of bed plates, all temporary arrangements. Load testing may be done under Chapter-22. The bearing sets to be provided with the girders will be paid separately as per relevant item separately.			
	Payment Schedule			
	(i) Material at site – 40%			
	(ii) Fabrication at site – 15%			
	(iii) Erection/Launching – 20%			
	(iv) Completion incl. painting & finishing – 25%			
211011	Plate Girder/Semi Through Girder	MT	97501.19	97431.93
211012	Open web Girder	MT	103158.60	103353.17
211013	Extra for metalising including preparation of surface and applying one coat etch primer to 1S:5666	Sqm	17.66	17.66
211014	Extra for using steel conforming to Fe 490 of IS:8500 instead of Fe 410	MT	1161.50	1161.50
211015	Deduct for using steel conforming to Fe 410 A of IS:2062 instead of Fe 410 B	MT	1161.50	1161.50
211020	Assembling and erection of fabricated material including rocker and roller bearings with crane/derrick at site on sub structure with labour, equipment, T&P including site riveting/welding with all temporary arrangements, scaffolding etc. with contractors design and scheme for longitudinal launching/side slewing (not requiring traffic block) approved by Railway. Rate includes field rivets / welding, drifts, service bolts etc. as per drawings			
211021	Plate Girder/Semi Through Girder	MT	14303.41	14807.13
211022	Open Web Girder	MT	15811.74	16399.11
211030	Fabricating, supplying and fixing in position Galvanized steel channel sleepers of mild steel of tested quality conforming to IS:2062, on fabricated girders including all fixtures fastenings as per approved Railway drawings with labour, material, tools and plants etc. as a complete job including galvanizing of all components	MT	94871.49	97078.17

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
211031	Extra for working under running traffic/traffic block conditions on item 211030	MT	8133.10	8133.10
211040	Fabricating, supplying and fixing of 6mm to 8mm thick steel chequered plate conforming to IS:3502 for pathway, trolley refuges, floor for the bridge including fixing the same over steel channel sleepers by drilling holes in channel sleepers and trolley refuges including nuts & bolts, tools & plants, labour as a complete job	MT	83650.26	85856.94
211050	Metalizing of steel work of girder with grit blasting as per IRS-B1-2001 following by one coat of etch primer (as per IS:5666) one coat of Zinc Chrome primer (as per IS:104) and two coats of aluminium paint (as per IS:2339) with all labour, T&P and material as a complete job	Sqm	97.19	97.19
211060	Providing and fixing 65/50 mm nominal dia B class G.I. pipe railing used in rows for footpath or anti-crash barrier railing including cost of M.S. angle and channels in vertical posts, riveting, welding / rivetting, priming painting two coats, at all heights labour and material as a complete job	Kg	62.91	62.91
211070	Supplying and fixing anti-slip M.S. Angles/nosing 65mmx 65mmx 8mm or any other size conforming to IS:2062 fixing 10mm dia, anchor bar 600mm c/c and fixing with main girder with M.S. flat on top of step of stair case, making anti-slip grooves 7 nos. arrangement for keeping and maintaining in position as per approved plan with all labour and material as a complete job	Kg	51.34	51.34
211080	Providing/fixing/leaving/grouting various size HTS bolts / holding down bolts in concrete column or in other structural steel member with proper nuts, bolts, washers/plates as a complete job. Note - Cement used in grouting will be paid separately under relevant item.	Kg	122.35	122.35
211090	Providing, cutting, fabricating, treating, fixing & painting structural steel conforming to IS:2062 in access ladders, inspection platforms, Trolley refugee, railing etc. joints welded to neat finish including one coat of primer & two coats of synthetic enamel paints	MT	51254.46	51254.46
211100	Supplying, fitting and fixing in position true to line and level cast steel rocker bearing complete as per IS :7666, IS:9565, IS:1030, IS:919, IS:3073 and as per Bridge Code including all accessories as per drawing and Technical Specifications	MT Bearing Capacity	364.10	364.10
211110	Supplying, fitting and fixing in position true to line and level forged steel roller bearing conforming complete as per IS:7666, IS:9565, IS:1030, IS:919, IS:3073 and as per Bridge Code including all accessories as per drawing and Technical Specifications	MT Bearing Capacity	485.08	485.08
211120	Supplying, fitting and fixing in position true to line and level sliding plate bearing with PTFE Surface sliding on stainless steel as per BS:3784, BS 5400, complete including all accessories as per Drawing and Technical Specifications	MT Bearing Capacity	670.07	670.07
211130	Design, supplying, fitting and fixing in position true to line and level elastomeric bearing conforming to IS:3400, IS:226, BS-5400 complete including all accessories as per drawing and Technical Specifications	cu cm	1.20	1.20

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
211140	Supplying, fitting and fixing in position true to line and level POT-PTFE bearing consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per drawing and approved Technical Specifications. The design of the bearings shall be submitted by the manufacturers/contractor and got approved from Railway before fixing. Test report of the bearings should be got approved before the materials are lifted from the manufacturer premises. Payment is based on 250 MT capacity of Bearing.			
211141	POT-PTFE Bearing	MT Bearing Capacity	472.78	472.78
211142	POT Bearing	MT Bearing Capacity	381.36	381.36
211143	PIN Bearing	MT Bearing Capacity	244.06	244.06
211150	Providing vertical guide bearings as per approved drawings and fixing them with transversal and longitudinal stoppers using reinforced neoprene pads and PTFE-SS sliding system as per approved drawings and specifications. Payment is based on 180 MT capacity of Bearing.	MT Bearing Capacity	182.76	182.76
211151	Longitudinal stopper bearings	MT Bearing Capacity	131.89	131.89
211152	Transverse stopper bearings	MT Bearing Capacity	183.10	183.10
211160	Supply & applying two coats of bitumen emulsion conforming to IS:3117-1965 on the top surface of steel deck slab (New bridges) @ 1.70 kg/sqm after cleaning surface with all materials, labour, tools and plants, equipment etc. complete.	Sqm	108.71	96.24
211170	Painting steel works (new bridges) with two cover coats of red oxide paint conforming to IS:123-62 as per IRS-B1-2001 to give an even shade with all labour & material including scaffolding, shuttering and strutting alongwith provision of Jhoola/hanging scaffolding where required	Sqm	94.24	94.24
211180	Providing road crane of different capacity with different jib length revolving type for material handling, assembly & erection of girders/slab/RCC Box etc.			
211181	12MT capacity with 36 feet jib	day	5981.73	3373.69
211182	25MT capacity with 60 feet jib	day	7417.34	6699.53
211183	40MT capacity with 75 feet jib	day	11963.45	13494.77
211184	75MT capacity with 75 feet jib	day	50246.49	50246.49
211185	100MT capacity with 75 feet jib	day	75369.74	75369.74
211186	150MT capacity with 75 feet jib	Day	149543.13	149543.13
211190	Cleaning of steel work of bridge girders upto 30.5m clear span with scrappers and/or wire brushes to remove all rust and loose or perished paint to prepare perfectly clean & dry bare metal surface free from all dirt/foreign material & ready for initial coat of paint. Rate includes cost of labour, consumables, brushes, tools & plants, ladders, scaffoldings, jhoola, hanging scaffolding staging etc.	Sqm	20.53	20.53

Item No.	Description of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
211200	Cleaning of steel work of bridge triangulated girders with scrappers and/or wire brushes to remove all rust and loose or perished paint to prepare perfectly clean & dry bare metal surface free from all dirt/foreign material & ready for initial coat of paint. Rate includes cost of labour, consumables, brushes, misc. tools and plants, ladders, scaffoldings, jhoola, hanging scaffolding staging etc.	Sqm	30.80	30.80
211210	Painting cleaned bridge plate girders including all scaffolding, shuttering and strutting along with provision of Jhoola / hanging scaffolding where required			
211211	With one coat ready mix red lead conforming to IS:102	Sqm	25.38	25.38
211212	With one coat ready mix Zinc Chromate conforming to IS:104 followed by one coat of Zinc Chromate red oxide conforming to IS:2074	Sqm	39.74	39.74
211213	With two coats ready mix red oxide conforming to IS:123	Sqm	39.79	39.79
211214	With two coats Aluminium paints in dual containers conforming to IS:2339	Sqm	46.14	46.14
211215	With two coats epoxy paint	Sqm	61.06	61.06
211220	Painting cleaned bridge girders exceeding 30.5m clear span including all scaffolding, shuttering and strutting along with provision of Jhoola / hanging scaffolding where required			
211221	With one coat ready mix red lead conforming to IS:102	Sqm	28.37	28.37
211222	With one coat ready mix Zinc Chromate conforming to IS:104 followed by one coat of Zinc Chromate red oxide conforming to IS:2074	Sqm	44.53	44.53
211223	With two coats ready mix red oxide conforming to IS:123	Sqm	45.17	45.17
211224	With two coats Aluminium paints in dual containers conforming to IS:2339	Sqm	50.92	50.92
211225	With two coats epoxy paint	Sqm	65.84	65.84
211230	Supply, fabrication and erection of bed plate of approved sizes in exact position over bed block on pier/abutments by giving full and even bearing, setting them on the layer of free flow non-shrinkable grouting compound, scrapping or chipping of bed block, if required, fabrication and fixing of HD bolts of suitable sizes alongwith nuts, washers etc., drilling holes of required size, grouting of holes by epoxy mortar after fixing HD bolts. Total work to be done during traffic block.			
211231	Upto 12.2m clear span	Kg	252.73	249.56
211232	More than 12.2m, but upto 18.3m clear span	Kg	315.91	311.94
211233	More than 18.3m, but upto 30.5m clear span	Kg	379.09	374.33
	New Items To Be Added By Zonal Railways			
212010				
212020				
212030				
212040				
212050				
212060				
212070				
212080				
212090				
212100				

CHAPTER - 22 : BRIDGE WORKS - MISCELLANEOUS					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
221010	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 35kg each with the voids filled with spalls complete as per drawing and Technical specification	cum	1389.22	920.67	
221020	Laying of boulder apron laid in wire crates of approved size including overlaps at joints laid with stone boulders, all loose ends to be tied with 4mm galvanised steel wire. Payment for boulders & wire crates to be done extra	cum	304.19	304.19	
221030	Supplying galvanized wire net trungers made from 4 mm galvanised steel wire @ 32 kg/10sqm having minimum tensile strength of 300 Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826, woven into mesh with double twist, mesh size not exceeding 100mm x 100mm	Sqm	406.01	406.01	
221040	Providing and laying of apron with cement concrete blocks cast in-situ and made with nominal mix of 1:2:4 with a minimum cement content of 250 kg/cum. Payment to be made for blocks only. Cost of cement and shuttering to be paid extra.	cum	2687.32	1441.90	3.200
221050	Providing and laying pitching with stone boulders weighing not less than 35kg each with the voids filled with spalls on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications (filter media to be paid separately under the relevant item)	cum	1485.80	1017.25	
221060	Providing and laying pitching with stone boulders weighing not less than 35kg each with the voids filled with cement sand mortar 1:4 on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications (filter media to be paid separately under the relevant item)	cum	2670.83	1619.49	1.250
221070	Providing and laying Filter Material as per RDSO Specifications underneath pitching in slopes complete as per drawing and Technical specification	cum	1729.74	1172.22	
221080	Providing & laying of a Permeable Geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment material through the voids of the stone pitching/cement concrete blocks as well as to allow free movement of water without creating any uplift head on the pitching, as per RDSO guidelines				
221081	With GJT-Type 1 (for Harsh conditions)	Sqm	29.80	29.80	
221082	With GJT-Type 2 (for less severe conditions)	Sqm	35.93	35.93	
221083	With GJT-Type 3 (for moderate conditions)	Sqm	48.64	48.64	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
221090	Laying boulder apron on river bed for protection against scour with stone boulders supplied by railways with the voids filled with spalls complete as per drawings and technical specifications, with maximum lead upto 150m	cum	97.36	97.36	
221100	Laying pitching with stone boulders supplied by the railways with the voids filled with spalls on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment as per drawings and technical specifications. Max lead upto 150m (filter media to be paid under the relevant item)	cum	147.19	147.19	
	Flooring in Bridges				
222010	Providing and laying flooring with rubble stone, laid over 15cm thick CC 1:2:4 and the voids filled with CC 1:2:4 complete with the joints pointed with 1:2 Cement Sand mortar as per drawing and Technical specifications. Payment for cement to be done separately. Voids in the rubble stone to be taken as 35% of the gross volume of the stone layer. (Base concrete to be paid extra)	cum	2279.05	1409.80	1.12 for rubble stone only
222020	300mm thick (average) Dry Stone flooring with boulders of not less than 35kg each in weight, hand packed with surface levelled off to the correct section with hammer dressing as necessary on the ground including filling the gaps with quarry spalls and ordinary sand complete including cost of supply of all materials, labour, lead, lift, tools, plants, crossing of tracks and the like as per drawing and technical specification as directed by Engineer in charge	cum	1773.98	997.51	
222030	Supply and laying of quarry dust including consolidation, supply of all materials, labour, lead, lift, tools, plants, crossing of tracks as per drawing and technical specification as directed by the Engineer in charge in case loose slush is encountered at site of foundation before casting the foundation or before laying the filtering media	cum	1107.73	661.72	
222040	Supply and laying of coarse sand including consolidation, supply of all materials, labour, lead, lift, tools, plants, crossing of tracks as per drawing and technical specification as directed by the Engineer in charge in case loose slush is encountered at site of foundation before casting the foundation or before laying the filtering media	cum	3643.06	1148.15	
222050	Guniting concrete surface with cement mortar of average thickness 25mm, applied with compressor after cleaning surface and spraying with epoxy complete as per Technical Specification in the ratio of 16kg of cement to 0.04cum of sand, 50mmx50mmx 3mm size wire mesh, with 0.67kg of epoxy and 0.64kg of accelerator compound for guniting per sqm	Sqm	912.06	852.12	0.160

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
222060	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical Specifications including subsequent cutting/removal and sealing of the hole as necessary after completion of grouting	Each	34.60	36.54	
222070	Sealing of cracks/porous concrete by injection process through nipples/grouting complete as per Technical Specification				
222071	Neat Cement Grout with 20% anti shrinkage compound w.r.t. cement	Kg	161.02	161.02	As per actual consumption at site
222072	Cement Sand Mortar (1:1) Grout with 20% anti-shrinkage compound w.r.t. cement	Kg	213.24	213.24	As per actual consumption at site
222073	Epoxy Grout	Kg	955.61	955.61	
222080	Patching of damaged concrete surface with Pre-packed polymer concrete with average thickness of 25mm. Curing compounds, initiator and promoter, available in the formulations, to be applied as per instructions of manufacturer and as approved by the Engineer in charge.	Sqm	420.70	420.70	
222090	Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per Technical Specification with average thickness of 10mm including priming coat, mortar plaster and seal coat of epoxy	Sqm	5560.46	5560.46	
222100	Removal of defective concrete, cleaning the surface thoroughly, applying the shotcrete mixture mechanically with compressed air, comprising of cement, sand, coarse aggregates, water and quick setting compound as approved, gunite strength not less than 25 Mpa with average thickness of 40mm in the ratio of 16 kg of cement to 0.04cum of sand, 50mmX50mmX3mm size wire mesh with 0.67 kg of epoxy and 0.64 kg of accelerator compound for guniting per sqm	Sqm	903.82	820.66	0.160
222110	Applying pre-packed cement based polymer mortar of strength 45 Mpa (28 days) for replacement of spalled concrete with average thickness of 10mm	Sqm	545.78	545.78	
222120	Providing & applying epoxy for bonding of new concrete to old concrete @ 0.80 kg/sqm with pot life not less than 60-90 minutes and as per specifications including cleaning the surface	Sqm	605.25	605.25	
222130	Providing & fixing 12 mm rabbit wire mesh at the junction of RCC where specifically ordered or as shown in the drawing	Sqm	79.08	79.08	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
222140	Providing, cutting, fabricating, treating, fixing structural steel as per IS:2062 in access ladders (top of girder/slab to pier cap), inserts, platforms, railing, trolley refuges, drain pipes etc. by drilling holes and grouting with C.C. as per specifications including painting with two coats of approved paint over two coats of primer. (cement for grouting shall be paid separately)	MT	83429.68	84325.08	
222150	Providing / fixing / grouting various size HTS holding down bolt in concrete column or in other structural steel member including drilling holes of required size, bolts threaded at both ends shall be fixed with proper size nuts bolts, plates, washers complete including all labour and material	Kg	155.02	155.02	0.010
222160	Providing weep holes by making suitable opening or drilling in existing Brick Masonry / Plain / Reinforced Concrete abutment, wing wall/return wall with 100 mm dia AC pipe, extending through the full width of the structure complete	metre	530.97	530.97	0.020
222170	Providing and fixing of Drainage Spouts of 100mm UPVC complete as per drawing and Technical specification	metre	576.25	576.25	0.010
222180	Providing and laying of filter media consisting of granular materials of GW, GP, SW groups as per IS:1498-1970 in required profile behind boulder filling of abutments, wing walls / return walls etc. above bed level with all labour and material complete job as per drawing and technical specification of RDSO Guidelines	cum	1353.26	1102.38	
222190	Removing all loose concrete, cleaning rust with dusting compound & water jet, drying, replacing worn out reinforcements by welding new re-inforcement for making up lost steel section, applying approved anti-corrosive polymer coating over the damaged area to proper profile, providing polymer mortar (upto 20mm thickness) or polymer concrete (more than 20mm thickness) consisting of cement, sand, 6mm down chips where required and polymer as per manufacturers' specification. The rate includes curing for 14 days, all materials, consumables, labours, tools and plants, scaffolding/staging with all lead and lift. Cost of cement & inforcement to be paid separately.				
222191	20mm thick polymer mortar	Sqm	4047.70	4047.70	0.122
222192	20mm-50mm thick polymer concrete	Sqm	2083.71	2083.71	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
222200	Supply, fabrication and erection of steel members to replace existing corroded members of built up section made up of MS plate, angles, channels of different thickness and sizes including painting with red lead priming to IS:102 and one heavy coat of ready mix red oxide conforming to IS:123. Structural steel should conform to IS:2062-Gr.'B'. Fabrication and erection to be as per existing design initially by bolts and nuts and finally by rivetting during the sanctioned traffic block. Payment for rivets and riveting to be made separately. Rate includes cutting of new steel work, drilling for riveting, dismantling of any existing members required for inserting fabricated members, fixing of new fabricated built up members with all tools, plants, labour, consumables, machinery and accessories etc. Work will be executed as per IRS:B 1-2001.	MT	82082.07	82082.07	
222210	Supplying and changing of corroded worn-out and loose rivets of any size at any location of the bridges with or without traffic blocks including all tools, plants, machinery complete in all respects. Cost of rivett to pay separate.				
222211	Rivetts size upto 25mm dia.	Each	119.58	119.58	
222212	For Rivets more than 25mm dia.	Each	218.41	218.41	
222220	Dismantling of existing bed plate from existing bed block by cutting & removal of HD bolts and nuts with all tools, plants, machinery scaffolding, labour and other materials and shiting it at one end of the bridge during traffic block.	Each Plate	7072.55	4854.08	
222230	Painting the HFL and danger level marks, year of HFL on bridge abutments and piers with ready mixed paint as per standard in two coats over one coat of primer with all materials, labour, tools, scaffolding, all lead and lift etc. including writing complete	Each Mark	118.16	118.16	
222240	Providing cast in situ bridge number plaques as per Railway drawing in cement concrete 1:2:4 mix using 20mm hard stone aggregate embedded in 30mm notch in Bridge parapet coping duly engraving the letter and figures and an arrow indicating the direction of flow and finishing the top exposed surface with cement mortar 1:3, painting letters and figures with two coats of black enamel paint on two coats of white background with all labour, tools, cement, paint etc. with all leads and lifts	Each	2470.21	2470.21	0.100

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
222250	Providing cast in-situ plaques for bridge foundations details of size 45cmx45cmx5cm in cement concrete 1:2:4 mix using 20mm hard stone aggregate embedded in 30mm deep notch over abutment & piers, engraving the letters & figures with CM 1:3 and finished smooth including painting letters and figures with 2 coats of black enamel and plaque with white enamel with all labour, tools, cement, paint, curing etc. as a complete job	Each	1923.56	1923.56	0.100
222260	Providing & laying non pressure NP-4 Class RCC pipe with collars, jointing with 1:2 cement and ordinary sand mortar including testing of joints, but excluding earthwork with all labour and material as a complete job. Cement for mortar will be paid separately.				
222261	600mm dia.	metre	2383.80	2374.65	
222262	900mm dia.	metre	4416.37	4402.23	
222263	1000mm dia.	metre	5174.30	5157.66	
222264	1200mm dia.	metre	6727.18	6706.39	
222280	Supplying, spreading and filling coarse sand (no cohesive materials to be used) of approved quality including watering and ramming in foundation, plinth, behind the abutment, wing wall, retaining wall in layers not exceeding 150mm thick including its compaction as per direction of Engineer-in-charge. The rate includes all lead, lift, ascent, descent, crossing of Railway line etc. complete with contractor's labour, materials, tools and plant.	cum	3562.30	1067.39	
222290	Providing Boulder Backing behind wing wall, return wall, retaining wall with hand packed boulders & cobbles with smaller size boulders toward the back including all lead, lift, labour & other incidental charges as complete work in all respect. Payment for boulder/cobbles will be done extra.	cum	168.41	168.41	
222300	Dewatering of natural or accumulated water from any location. Payment to be done for Horse power of pump multiplied by pumping hours.	HP Hour	19.71	23.58	
222310	Supplying & fixing Galvanised Steel Wire Ropenet, made of 9mm dia. steel wire rope having aperture size of 45cm x 60cm with 6m long hangs for top anchoring and 5m wide along with chain-link mesh-netting of 80mm x 80mm mesh size made from 2.4mm dia galvanised wire, joining of chain-link mesh & steel wire ropenet and joining of adjacent nets with galvanised spiral lock springs of steel wire dia 2.2mm; inner dia. of springs 18mm; total length 50mm $\pm$ 0.5mm; pitch 4mm & open end length 60mm including cutting of tree/shrub etc. in rope-netting location contd.	Sqm	704.67	708.44	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	... contd. - and also, excavation / filling-back of trenches in all types of soil after anchoring ropenet with RCC pre-cast beam of size 15cm x 15cm x 2m of M-15 concrete & 30cm thick M-10 PCC. This work also includes supply of 200mm x 200mm x 6mm epoxy coated washer plates with 12.5mm / 18mm dia. hole at centre and supplying & fixing of anchor bolts/fastners of 10mm dia. including drilling of holes upto a depth of 110mm in rock; cleaning of holes; fixing of fastners with nut & epoxy coated washer plates; applying torque 65 to 70 N/mm for fixing of ropenet for intermediate anchoring on the surface of cutting, bottom anchoring upto 1m depth by using 16mm dia. HYSD steel bolts, - contd....				
	... contd. - threaded upto 200mm on top and fixing epoxy coated washer plate, fabrication & fixing of U-pin on top of cutting for top anchoring and joining of adjacent nets with spiral spring and fixing at the ratio of 1 no. per 0.6m in longitudinal direction of net portion and additional locks for lacing chain link netting with ropenet with contractor's materials, machinery, tools & plants, cement, steel, labour, lead, lift, transportation, ascent, descent, taxes, royalty etc. complete as per directions of engineer-in-charge.				
222320	Supplying & fixing of Erosion Control Geomat (for surfacial erosion control) consisting of 2 layers of polymeric netting, having aperture size of 20mm x 20mm and a middle layer of coir as per Specifications. Max. width of rolls/each composite mat shall be 5m. Work includes dressing of slopes to proper profile & removing loose rubbles, muck & leading to the point as directed by engineer-incharge; supply & spreading of good earth/soil material on slope/berm portion etc. to proper profile for laying of Geomat anchoring in top anchor trench; seaming of adjacent panels of Geomat with HDPE Twine; fabrication & fixing of U-pin on slope/berms including top of cutting for anchoring of Geomat as per approved scheme and providing of grass sods and placing over Geomat so as to completely cover it, including watering for 2 weeks with all labour, tools & materials alongwith lead & lift etc. complete	Sqm	277.42	291.36	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
222330	Supplying & placing of Mechanically Woven Double Twisted Hexagonal Shaped Wire Mesh Gabion Boxes of required sizes, Mesh Type 10cm x 12cm, Zn and PVC coated Mesh Wire dia. 2.7/3.7mm (ID/OD), edges of meshes mechanically edged / selvedged with heavy coating of galvanization as per EN 10223-3/ASTM A 975 with partitions at every 1m interval and properly packed with approx. 150mm size boulders including transportation and placing at indicated places as per direction of engineer-in-charge including contractor's tools, plants, labour, royalty charges etc. complete in all respect and stitching with lacing wire of dia. 2.2/3.2mm (ID/OD) @ 5% by weight of Gabion boxes, carrying the material by head lead from nearest approach with all safety precautions and all leads and lifts	cum	2847.53	2452.62	
222340	Supplying & placing partly or fully underwater of Polypropylene Tarred Rope Gabion, fabricated from 9mm dia. rope, 100mm x 100mm Mesh with partitions at every 1m interval and properly packed with approximately 150mm size boulders including transportation and placing at indicated places as per direction of engineer-in-charge with contractor's tools, plants, labour etc. including royalty charges complete in all respect and stitching with polypropylene lacing rope of minimum dia. 4mm; carrying the material by head lead from nearest approach with all safety precautions and all leads and lifts	cum	2740.40	2345.49	
	SURFACE PROTECTION OF BRIDGES				
222350	Surface protection of Piers, Substructure, Box bridges and culverts in river bed by cleaning & preparing the surfaces by acid etching; treating surface with a two-layer plaster; first layer of 7mm (5mm in case of sidewalk) thick with cement (OPC or slag) admixed with an octadecanoic acid based cementitious waterproofing compound (Max. bulk density 0.5 gm/cc), in the weight ratio of 50:3 for cement and waterproofing compound and second layer of 12mm thick cement-sand (1:2.5) plaster, enriched with polyester fibre (to be paid separately) and curing the plastered surface. Treatment shall be impermeable under a waterhead of 20m, (Note : In lieu of etching with acid the surface can be roughened or bond improved by other appropriate means) complete as per specification.				
222351	Piers, substructure, Box bridges and culverts in river bed	Sqm	275.51	257.19	
222352	Sidewalks	Sqm	264.71	246.40	

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
222360	Surface protection of Underside of Bridge Decks, Girders, Inside of Box Girders, Railings etc. of Bridges and Piers and Substructures which are not in River Bed by cleaning and drying the surface; repairing local defects, e.g. honeycombs with a paste of cement admixed with 5% by weight of cement of Polymer bonding agent, applying (@ 0.30 litre/sqm) a coat (DFT of 100-150 micron) of a translucent brown coloured modified phenolic resin based single component high performance polymeric waterproofing compound ... contd. ---	Sqm	254.58	254.58	
	... contd. --- (sp. gr. 0.87, rosin content nil and a solid content of minimum 0.47%), applying (@ 0.25 litre/sqm) a top coat of a modified phenolic resin based single component waterproofing compound of grey or other shades (sp. gr. 0.85) before the base coat becomes tack-free; permitting the coatings to cure and dry naturally; the 2-coat system shall be impermeable under a water head of 20m, complete as per specification				
222370	Surface protection of Bridge Deck by cleaning and preparing the surface by acid etching; treating the surface with a two-layer plaster; first layer of 5mm thick with cement (OPC or slag), admixed with an octadecanoic acid based cementitious waterproofing compound (bulk density not greater than 0.5 gm/cc) in the weight ratio of 50:3 for cement and waterproofing compound, further enriched with specially fabricated deformed galvanized steel fibre @ 150 gm/sqm of treated surface and second layer of 12mm thick cement-sand (1:2.5) plaster, enriched with polyester fibre (to be paid seperately) and curing the plastered surface. Treatment shall be impermeable under a waterhead of 20m complete as per specifications	Sqm	284.46	266.14	
	New Items To Be Added By Zonal Railways				
223010					
223020					
223030					
223040					
223050					
223060					
223070					
223080					
223090					
223100					

CHAPTER - 23 : ROAD AND PLATFORM WORKS					
Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	SUB-BASES AND BASES				
231010	Preparation of subgrade by excavating earth upto 22.5cm depth, dressing to camber and consolidating with power road roller of 8 to 12 tonne capacity including making good the undulations etc. and disposal of surplus earth with lead upto 50m	Sqm	47.78	46.84	
231020	Consolidation of subgrade with power road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spoils etc. and re-rolling the subgrade	Sqm	2.55	1.61	
231030	Providing & laying each layer of flat brick soling hand packed & joints filled with ordinary sand				
231031	With well burnt bricks Class 7.5 designation	Sqm	304.49	269.95	
231032	With Jhama bricks	Sqm	215.05	108.96	
231040	Providing and laying water bound macadam with specified stone aggregate, stone screening and binding material including screening, sorting, spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc. complete				
231041	Sub-base with stone aggregate 90mm to 45mm including stone screening 13.2mm size	cum	1053.18	1138.43	
231042	Base course with 63mm to 45mm size including stone screening 13.2mm size	cum	1085.73	975.27	
231043	Base course with 53mm to 22.4mm size including stone screening 11.2mm size	cum	1381.91	1041.48	
231050	Providing and laying water bound macadam sub-base with brick aggregate and binding material, earth / moorum etc. including screening, sorting and spreading to template and consolidation with light power road roller etc. complete				
231051	Over burnt (Jhama) brick aggregate 120mm to 40mm	cum	1125.39	813.82	
231052	Over burnt (Jhama) brick aggregate 90mm to 45mm	cum	1125.39	755.74	
231060	Providing and laying bitumen penetration macadam with hard stone aggregate, 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 ... contd. --				
	... contd. --- complete including consolidation with road roller of minimum 8 to 10 tonne capacity				
231061	For 50mm compacted thickness using 6cum coarse aggregate of size 50mm-20mm graded, 1.5cum key aggregate of size 12.5mm graded, and 500kg paving asphalt 80/100 per 100sqm	Sqm	326.73	296.86	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
231062	For 75mm compacted thickness in two layers using 9cum coarse aggregate of size 63mm-41mm graded, 1.8cum key aggregate of size 20mm graded, and 680kg paving asphalt 80/100 per 100sqm	Sqm	457.25	420.29	
231070	Providing and laying 4cm thick moorum surfacing (Consolidated Thickness) on platforms, pathways, etc including spreading watering and consolidation with 3T Roller or light power roller complete	Sqm	20.99	17.74	
231080	Providing and spreading 6mm thick layer of red bajri/ moorum, watering and rolling with 3T roller or light power roller complete including preparation of the surface and rolling	Sqm	25.29	19.07	
	SURFACE DRESSING :				
232010	Surface dressing on new surface with paving bitumen of grade A-90/S-90 of approved quality using 2.25 kg of bitumen. per sqm with 1.65 cum of stone chippings 13.2mm nominal size per 100sqm of road surface including consolidation with road roller of 6 to 8 tonne capacity etc. complete	Sqm	136.57	136.97	
232020	Surface dressing on new surface in two coats with bitumen of grade A-90/S-90 of approved quality using 1.8kg of bitumen per sqm with 1.5cum of stone chippings 13.2mm nominal size per 100sqm of road surface for 1st coat and 1.1kg of bitumen per sqm with 1cum of stone chippings 11.2mm nominal size per 100sqm of road surface for 2nd coat including consolidation of each coat separately with road roller of 6 to 8 tonne capacity etc. complete	Sqm	183.65	184.25	
232030	Surface dressing on old surface with hot bitumen of grade A-90/S-90 of approved quality using 1.95 kg of bitumen per sqm with 1.50cum stone chippings 11.2mm nominal size per 100 sqm of road surface including consolidation with road roller of 6 to 8 tonne capacity etc. complete	Sqm	113.36	112.65	
232040	Surface dressing one coat on new surface with bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS:8887) at a rate of 1.95 kg/sqm of surface area with 1.5cum of stone chippings 13.2mm nominal size per 100sqm of road surface including consolidation with road roller of 6 to 8tonne capacity etc. complete	Sqm	106.71	107.18	
232050	Surface dressing one coat on old surface with bitumen emulsion (minimum 50% bitumen content-RS grade conforming to IS:8887) at the rate of 1.22 kg/sqm of surface area with 1.11cum of stone chippings 11.2mm nominal size per 100 sqm of road surface including consolidation with road roller of 6 to 8tonne capacity etc. complete	Sqm	68.37	67.71	
	PRE MIX CARPET :				

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
233010	Providing and applying tack coat using bitumen emulsion (Rapid setting) complying with IS:8887-1995, spraying the bitumen emulsion with mechanically operated spray unit, cleaning and preparing the existing road surface as per specification				
233011	On W.B.M. @ 0.4kg/sqm	Sqm	19.31	19.51	
233012	On bituminous surface @ 0.25kg/sqm	Sqm	13.69	13.88	
233020	Providing and laying 2cm premix carpet surfacing with 1.8cum and 0.90cum of stone chippings of 13.2mm size and 11.2mm size respectively and 144 kg of hot bitumen per 100 sqm over a tack coat including consolidation with road roller of 6 to 8 tonne capacity etc. complete (tack coat to be paid separately)				
233021	With paving asphalt 80/100 heated and then mixed with solvent at the rate of 70grams per kg of asphalt	Sqm	137.11	136.94	
233022	With paving asphalt 60/70 with no solvent	Sqm	116.74	116.57	
233023	With refinery modified bitumen CRMB 55 conforming to IRC: SR:53-1999	Sqm	142.30	142.13	
233030	Providing and laying 2.5cm premix carpet surfacing with 2.25cum and 1.12cum of stone chippings of 13.2mm size and 11.2mm size respectively and 180kg of hot bitumen per 100sqm over a tack coat including consolidation with road roller of 6 to 8tonne capacity etc. complete (tack coat to be paid separately)				
233031	With paving asphalt 80/100 heated and then mixed with solvent at the rate of 70 gram per kg of asphalt	Sqm	167.88	168.18	
233032	With paving asphalt 60/70 with no solvent	Sqm	143.54	143.84	
233033	With refinery modified bitumen CRMB 55 conforming to IRC:SR:53-1999	Sqm	174.36	174.66	
233040	Providing and laying 2cm premix carpet surfacing with 2.4cum of stone chippings 11.2mm nominal size and 230kg bitumen emulsion (medium setting min. 65% bitumen content) complying with IS:8887-1995 per 100sqm including consolidation with road roller of 6 to 8 tonne capacity etc. complete	Sqm	126.28	124.46	
233050	Providing and laying 2.5cm premix carpet surfacing with 3cum of stone chippings 10mm nominal size and 288kg bitumen emulsion (medium setting min. 65% bitumen content) complying with IS:8887-1995 per 100sqm including consolidation with road roller etc. complete	Sqm	155.46	153.55	
	BITUMASTIC SHEET WEARING COURSE :				

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
234010	2.5 cm thick bitumastic sheet with hot bitumen of approved quality using stone chippings (60% 12.5 mm nominal size and 40% 10 mm nominal size) @ 1.65 cum per 100 sqm and coarse sand at 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) :				
234011	With paving bitumen 80/100 heated and then mixed with solvent at the rate of 70 gram per kg of asphalt	Sqm	273.50	237.57	
234012	With paving bitumen 60/70 with no solvent	Sqm	232.78	196.89	
234013	With refinery modified bitumen CRMB 55 conforming to IRC:SR:53-1999	Sqm	237.45	235.83	
234020	4cm thick bitumastic sheet with hot bitumen of approved quality using stone chippings (60% 12.5mm nominal size and 40% 10mm nominal size) 2.60cum and coarse sand 2.60cum of road surface and with 478kg bitumen per 100sqm of road surface over a tack coat including consolidation with road roller of 8 to 10 tonne etc. complete (tack coat to be paid separately)				
234021	With paving bitumen 80/100 heated and then mixed with solvent at the rate of 70 gram per kg of asphalt	Sqm	425.16	369.01	
234022	With paving bitumen 60/70 with no solvent	Sqm	360.40	304.25	
234023	With refinery modified bitumen CRMB 55 conforming to IRC:SR:53-1999	Sqm	442.41	386.26	
	SEAL COAT :				
235010	Providing and laying seal coat of premixed fine aggregate (passing 2.36mm and retained on 180micron sieve) with bitumen using 128 kg of bitumen of grade 80/100 bitumen and 0.60cum of fine aggregate per 100sqm of road surface including rolling and finishing with road roller all complete. Note - This should not be operated along with Hot mix carpeting	Sqm	67.80	54.96	
	CONCRETE PAVEMENTS :				
236010	Cement concrete Grade M-15 of coarse aggregate 40mm nominal size, in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete	cum	2853.50	1605.63	3.200
236020	Providing and laying design mix cement concrete in roads, having a cube strength of M-30 using cement, coarse sand and graded stone aggregate of 40mm nominal size as per approved design. mechanically vibrated, steel form work, curing, providing and filling construction & dummy joints with approved joint filler (conforming to grade B of IS:1834) rounding of the edges, making & filling the grooves as per drawing	cum	3407.66	2181.73	3.4 or as per design mix

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
236030	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450mmx450mmx50mm with reinforcement of 6mm 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 20mm average thick cement mortar (1 cement : 3 coarse sand) 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	709.20	661.32	0.070
236040	Extra over item 236010 & 236020 for providing and mixing hardening compound of approved quality as per manufacturer's specification	litre	126.49	126.49	
236050	Providing and fixing in position pre-moulded joint filler in expansion joints	per cm width per cm depth / metre	2.13	2.13	
236060	Providing and laying in position bitumen hot sealing compound for expansion joints etc. using grade 'A' sealing compound	per cm width per cm depth / metre	1.95	1.95	
236070	Painting road surface marking with adequate number 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				
236071	New work (minimum two coats)	Sqm	87.81	87.81	
236072	Old work (one or more coats)	Sqm	56.63	56.63	
	MISCELLANEOUS :				
237010	Providing and fixing Cat's Eye (Glow studs) heavy integral stem, reflective, aluminium die cast with elegant finish of size 100mmx100mm and 20mm high having a stem of 50mm (or 12mm dia. 90mm long) screwed and nailed to fix into the road surface or at the nosing of the central verge. The road studs should have reflectors fitted on one side of the studs (3 nos. 7 element or 1 no. 29 element reflector) complete	Each	481.79	481.79	
237020	Deduct for using hand roller instead of power road roller for consolidation, If due to site conditions the power road roller can not be used and use of hand roller is specifically permitted in writing. 10% deduction is made on the total unit cost of the item concerned	Sqm	10% of Basic Items	10% of Basic Items	
237030	Supplying and laying Kerb stone 30cm X 20cm (in section including chamfering as per design, if any) chisel dressed on top and sides including fixing in 1:6 cement sand mortar and pointing with 1:2 cement mortar (1 cement : 2 sand ordinary) including all excavation / refilling, ramming and other incidental works as required	metre	546.37	540.97	0.020

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
237040	Supplying and laying Channel stone 30cmx10cm (in section) chisel dressed on top and sides including fixing in 1:6 cement sand mortar and pointing with 1:2 cement mortar (1 cement : 2 sand ordinary) including all excavation/refilling, ramming and other incidental works as required	metre	300.71	295.32	0.020
237050	Supplying and laying precast Kerb Stone of concrete M-25 Grade 30cmx20cm (in section / including chamfering as per design if any) including fixing in 1:6 cement sand mortar and pointing with 1:2 cement mortar (1 cement : 2 sand ordinary) including all excavation/refilling, ramming and other incidental works as required.	metre	473.19	467.80	0.020
237060	Supplying and laying precast Channel Stone of concrete M-25 Grade 30cmx10cm (in section) including fixing in 1:6 cement sand mortar and pointing with 1:2 cement mortar (1 cement : 2 sand ordinary) including all excavation/refilling, ramming and other incidental works as required	metre	264.12	258.73	0.020
237070	Providing and laying Dry Brick (FPS bricks of class designation 7.5) edging of full brick width and half brick depth including excavation, refilling / ramming and disposal of surplus earth lead upto 50m	metre	131.97	124.54	
237080	Providing and laying Dry Brick (FPS bricks of class designation 7.5) edging laid length wise with half brick depth including excavation, refilling / ramming and disposal of surplus earth lead upto 50m	metre	38.88	36.61	
237090	Providing and laying toothed (Diagonal) brick edging along paths etc at an angle of 60 Degree to the horizontal including excavation, refilling / ramming and disposal of surplus earth lead upto 50m	metre	48.20	45.18	
237100	Scarifying 50mm metalled (water-bound) road surface including disposal of rubbish lead upto 50m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity	Sqm	10.55	8.25	
237110	Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50mm nominal size 7.5cm deep with binding material consisting of 12mm thick layer of moorum and 12mm thick layer of red bajri consolidated with road roller	Sqm	136.95	106.39	
237120	Providing and laying Dry brick (F.P.S. bricks of class designation 7.5) pitching half brick thick in drains including supply of brick and preparing the surface complete	metre	437.32	411.07	
237130	Cutting road and making good the same including supply of extra quantities of materials, i.e. aggregate, moorum screening, red bajri, bitumen, compaction, protection during work etc. and labour complete				
237131	Bituminous portion	cum	1384.07	1384.07	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
237132	Water bound macadam	cum	682.21	660.74	
237140	Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and red bajri etc. and labour with compaction, protection during work complete	Sqm	39.94	32.84	
	DENSE MACADAM FOR HEAVY DUTY ROADS				
238010	Providing and laying Dense Bituminous macadam on prepared surface with specified graded crushed stone aggregate for profile corrective base / binding course, mixing of stone aggregate, filler and bitumen in hot mix plant, transporting the mixed material and laying with paver finisher fitted with electronic sensing device to the required level and grade and rolling by road roller as per specifications, to achieve the desired density, but excluding the cost of primer / tack coat				
238011	75 mm average compacted thickness with bitumen of 60/70 grade @ 5% by weight of total mix and lime filler @ 2% by weight of aggregate. (for very heavy traffic condition)	Sqm	585.38	527.24	
238012	75mm average compacted thickness with bitumen of 60/70 grade @ 3.5% by weight of total mix	Sqm	449.20	403.85	
238013	50mm average compacted thickness with bitumen of 60/70 grade @ 5% by weight of total mix and lime filler @ 2% by weight of aggregate. (for very heavy traffic condition)	Sqm	390.16	351.41	
238014	50mm average compacted thickness with bitumen of 60/70 grade @ 3.5% by weight of total mix	Sqm	299.39	269.16	
238020	Providing and laying Dense Bituminous concrete on prepared surface with specified graded stone aggregate for wearing course, mixing of bitumen, filler & stone aggregate in hot mix plant, transporting the mixed material and laying with mechanical paver finisher fitted with electronic sensing device to the required level and grade and rolling with road rollers, as per specification to achieve the desired density and compaction, but excluding cost of primer / tack coat				
238021	40mm/50mm compacted thickness with bitumen of grade 60/70 @ 6.5% and lime @ 3% by weight of total mix	cum	8511.64	7667.36	
238022	40mm/50mm compacted thickness with bitumen of grade CRMB (Crumb rubber Modified Bitumen) 60 @ 5.5% and lime @ 3% by weight of total mix	cum	8813.29	7968.97	
238023	40mm/50mm compacted thickness with bitumen of grade PMB-(Polymer Modified Binder-Plastomeric Thermoplastic) - 40 @ 5.5% and lime @3% by weight of total mix	cum	10152.02	9307.71	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
238030	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 0.005cum per 10sqm and at approximate spacing of 10cm centre to centre in both directions, pressed into surface protruding 1mm to 4mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (considering bitumen using 10.2% as per MORTH specification)				
238031	25mm thick	Sqm	674.28	656.43	
238032	40mm thick	Sqm	1078.85	1050.28	
238040	Manufacturing supplying and fixing retro reflective sign boards made up of 2mm 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 25mmx25mmx3mm alongwith theft resistant measures, mounted and fixed with 2 nos. M.S. angles of size 35mmx35mmx5mm to a vertical post made up of M.S. Tee section ISMT 50mmx50mmx6mm - contd. ...				
	... contd.- welded with base plate of size 100mmx100mmx5mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours). Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing, specification and direction of Engineer-in-charge. (Note : Concreting for fixing may be done as per site requirement and paid for separately)				
238041	Cautionary/warning sign boards of equilateral triangular shape having each side of 900mm with support length of 3650mm	Each	3127.98	3127.98	

Item No.	Description Of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
238050	Providing and applying 2.5mm 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 in accordance with applicable specifications	Sqm	900.40	889.94	
238060	Providing and fixing of raised pavement markers made of polycarbonate moulded body and reflective panels with micro prismatic lens made of polycarbonate with abrasion resistant coating. The length, weight and width of body shall not exceed 95mm, 18mm and 105mm respectively. The lower surface of the RPM shall be supported with two nylon shanks, each of length not less than 25mm. Fixed to the road by using twin nylon shanks using bituminous adhesive on bitumen roads or without nylon shanks with epoxy resin adhesive on concrete roads as per directions of Engineer Incharge. The RPM should conform to the quality standards as laid down in IR Standard Specifications	Each	661.71	661.71	
	New Items To Be Added By Zonal Railways				
239010					
239020					
239030					
239040					
239050					

CHAPTER - 24 : FENCING AND BOUNDARY MARKS					
Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty. (qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
241010	Supplying at site -				
241011	Precast R.C.C. standard posts (for barbed wire fencing) 1.8m long	Each	644.83	569.70	
241012	Precast R.C.C. standard struts 2m long	Each	519.29	465.42	
241013	Precast R.C.C. standard posts (for palisade fencing) 1.8m long	Each	627.44	559.57	
241014	Precast R.C.C. standard rails 2.25m long (90mm x 50mm) as per IR Unified Standard Specifications	Each	255.53	255.53	
241015	Precast R.C.C. standard rails 1.25m long (75mm x 50mm) as per IR Unified Standard Specifications	Each	127.77	127.77	
241016	Sal ballies of 30cm minimum girth	metre	58.08	29.04	Not to be operated
241017	Casurina post of 30cm minimum girth	metre	30.20	27.88	
241018	MS angle posts/struts of required size including bottom to be split and bent at right angle in opposite direction for 10cm length and drilling holes upto 10mm dia. etc. complete	Kg	49.55	49.55	
241019	MS angle of required size for rails of palisade fencing	Kg	49.55	49.55	
241020	Supplying at site -				
241021	Welded steel wire fabric of required width rectangular mesh 75x25mm size, weight not less than 7.75 kg/sqm painted with two or more coats of enamel paint of approved shade over a coat of primer (painting to be paid for separately)	Sqm	509.20	509.20	
241022	Chain Link fabric mesh of size 50mmX50mm size made of GI wire of 4mm dia.	Sqm	354.75	354.75	
241023	Chain Link fabric mesh of size 50mmX50mm size made of GI wire of 4mm dia. PVC coated to outer dia. of 5mm	Sqm	469.57	469.57	
	Providing and Fixing Fencing				
242010	Providing 1.2m high fencing with 1.8m R.C.C. Post placed every 3m apart, embedded in cement concrete blocks, every 15th post (or nearer if there is abrupt change of ground slope), last but one end post and corner post shall be strutted on both sides and end post one side only, and struts embedded in cement concrete blocks, provided with 5 horizontal lines and two diagonals of G.I. barbed wire 9.38 kg/100m (min) between the two posts fitted and fixed with G.I. staples on turn buckles or G.I. binding wire tied to 6mm bar nibs fixed while casting the post (cost of posts, struts and concrete to be paid for separately)	metre	46.71	46.71	As per actual consumption at site

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
242020	Providing 1.2m high fencing with 1.8m Sal balli/Casurina ballies posts, 30cm girth (min) placed every 2.5m apart, embedded in cement concrete blocks and every 15th post (or nearer, if there is abrupt change of ground slope), last but one end post and corner post shall be strutted on both sides and end post one side only and struts embedded in cement concrete blocks, provided with 5 horizontal lines and two diagonals of G.I. barbed wire 9.38 kg/100m (min) between the two posts fitted and fixed with G.I. staples driven into the posts including two coats of coal tarring of ballies complete (cost of posts, struts, and concrete to be paid for separately)	metre	62.37	62.37	As per actual consumption at site
242030	Providing 1.8m high fencing with 2.5m sal balli posts, 30cm girth (min) placed every 2.5m apart, embedded in cement concrete blocks and every 15th post (or nearer, if there is abrupt change of ground slope), last but one end post and corner post shall be strutted on both sides and end post one side only and struts embedded in cement concrete blocks, provided with 5 horizontal lines and two diagonals of G.I. barbed wire 9.38 kg/100m (min) between the two posts fitted and fixed with G.I. staples driven into the posts including two coats of coal tarring of ballies complete (cost of posts, struts and concrete to be paid for separately)	metre	64.28	64.28	As per actual consumption at site
242040	Providing 2.4m high fencing with 3.3m sal balli posts, 30cm girth (min) placed every 2.5m apart, embedded in cement concrete blocks and every 15th post (or nearer if there is abrupt change of ground slope), last but one end post and corner post shall be strutted on both sides and end post one side only and struts embedded in cement concrete blocks, provided with 7 horizontal lines and two diagonals of G.I. barbed wire 9.38 kg/100m (min) between the two posts fitted and fixed with G.I. staples driven into the posts including two coats of coal tarring of ballies complete (cost of posts, struts and concrete to be paid for separately)	metre	84.48	84.48	As per actual consumption at site
242050	Providing 1.2m high fencing with 1.8m angle iron 40mmx40mmx6mm posts placed every 3m centre to centre embedded in cement concrete blocks every 15th post (or nearer if there is abrupt change of ground slope) 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 .. contd. -	metre	46.71	46.71	As per actual consumption at site

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
	.. contd. - and provided with 5 horizontal lines and two diagonals interwoven with horizontal GI barbed wires, of barbed wire 9.38 kg/100m (min) between the two posts fitted and fixed with G.I. staples, complete (cost of posts, struts and concrete to be paid for separately)				
242060	Providing 1.8m high fencing with 2.4m angle iron 50mmx50mmx6mm posts placed every 3m centre to centre embedded in cement concrete blocks every 15th posts (or nearer if there is abrupt change of ground slope) last but one end post and corner post shall be strutted on both sides and end posts on one side only, and struts embedded in cement concrete blocks and provided with 7 horizontal lines and two diagonals interwoven with horizontal GI barbed wires of barbed wire 9.38 kg/100m (min) between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete (cost of posts, struts and concrete to be paid for separately)	metre	62.42	62.42	As per actual consumption at site
242070	Extra for supplying and fixing turn buckles and straining bolts for barbed wire fencing	Each	426.97	426.97	
242080	Supplying and fixing of barbed wire weighing 9.38 kg/100m (min) on previously erected posts with wire nails, hooks, stitching bolts, binding wire etc. straight and/or cross pattern. (Rate includes drilling of holes in the post wherever required) Note : This item can also be operated as extra over Items 242010 to 242060 for fixing additional wires to those stipulated in the respective items.	per metre of barbed wire	12.13	12.13	
242090	Erection of precast RCC/MS section/Sal balli post upto 2m height including excavation in all types of soil, filling back loose earth and consolidating etc. complete for making the post rigid. Concrete work in foundation to be paid for separately.	Each	45.07	45.07	
242100	Providing 1.2m high welded steel wire fabric fencing/chain link fabric with 1.8m posts of specified material and design placed at every 3m apart embedded in cement concrete blocks every 15th post (or nearer as per site conditions) last but one end post and corner post shall be strutted on both sides and end post one side only and struts embedded in cement concrete blocks, provided with welded steel wire fabric 0.9m wide rectangular mesh 75mmx25mm size weighting not less than 7.75 kg/sqm fixed between the posts fitted and fixed with G.I. staples on wooden plugs or tied to 6mm bar nibs .. contd. -	metre	19.42	19.42	
	.. contd. - with G.I. binding wire (cost of posts, struts welded steel wire fabric, painting, and concrete to be paid for separately)				
242110	Fixing posts (M.S. angle/flat) of any shape over top of wall, including making holes in masonry and fixing posts in cement concrete. (cement concrete to be paid separately)	Each	89.45	89.45	As per actual consumption at site

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
242120	Providing 1.3m high concrete rail and pale fencing of standard design with 1.8m R.C.C. posts 2.25m rails and 1.25m pales, posts placed at 2.25m apart (cost of concrete work, posts, rails and pales to be paid for separately)	metre	18.02	18.02	As per actual consumption at site
242130	Making tie bar/Boiler tube fencing from old tie bars/Boiler tube, supplied by Railway including straightening, cutting, drilling holes, rivetting/welding as per approved plan and depositing the excess scrap in Railway stores. Note : Due allowance for loss in standard weight of tie bars will be made while making payments depending upon condition of the tie bars/boiler tube.	quintal	499.89	499.89	
242140	Fixing and setting chainage, bench marks, apex and TP stones in 1:2:4 RCC of approved design. (pillars, excavation, concrete etc. will be paid extra)	Each	27.04	27.04	As per actual consumption at site
242150	Providing and fixing 15cmx15cmx90cm boundary stone of hard stone with 30cm chisel dressed on all four sides and on top (cost of excavation, refilling and concrete etc. to be paid for separately)	Each	85.11	85.11	As per actual consumption at site
242160	Extra over Item 242150 for engraving letters in hard stone	cm height /letter	2.55	2.55	
242170	Fixing Grade M-20, RCC Posts/Boards as per standard design (cost of excavation, refilling, concreting in foundation, painting and engraving if any to be paid for separately)				As per actual consumption at site
242171	Boundary Stones	Each	27.04	27.04	
242172	Kilometre Posts	Each	27.04	27.04	
242173	Hectametre Posts	Each	27.04	27.04	
242174	Gradient Boards	Each	27.04	27.04	
242180	Extra over Item 242170 for engraving letters in RCC	cm height /letter	3.05	3.05	
242190	Providing and fixing concertina coil fencing with required dia 600mm having 50 nos. round per 6m length upto 3m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3m apart and with 9 horizontal R.B.T. 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 .. contd. -	metre	197.37	197.37	
	.. contd. - with reinforced barbed tape (R.B.T.)/Spring core (2.5mm thick) wire of high tensile strength of 165 kg/sq.mm. with tape (0.52mm thick) and weight 43.478 gm/m (cost of M.S. angle, C.C. blocks shall be paid separately)				

Item No.	Description of Item	Unit	Rate (Rs.)		Cement Qty.(qtl.)
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
242200	Providing & fixing half bamboo jafri without gap of 20mm to 25mm dia. bamboos of good quality fixed half cut vertically to horizontal wooden batten of size 25mm to 40mm of ordinary wood with nails including two coats of painting with primer including all lead lift loading unloading all taxes all L&M, T&P as a complete job	Sqm	822.34	590.04	
242210	Providing & fixing full bamboo jafri without gap of 20mm to 25mm dia. bamboos of good quality fixed vertically to horizontal wooden batten of size 25mm to 40mm of ordinary wood with nails including two coats of painting with primer including all lead lift loading unloading all taxes all L&M, T&P as a complete job	Sqm	1417.73	953.13	
	New Items To Be Added By Zonal Railways				
243010					
243020					
243030					
243040					
243050					
243060					
243070					
243080					
243090					
243100					

CHAPTER - 25 : SUPPLY OF MATERIALS				
Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
	Roof and Ceilings			
251010	Asbestos fibre cement corrugated sheet 6mm thick	Sqm	178.66	178.66
251020	Asbestos fibre cement close fitting adjustable ridge 1.10m long	Pair	271.69	271.69
251030	Asbestos fibre cement corrugate serrated or plain wing adjustable ridge 1.22m long	Pair	226.41	226.41
251040	Asbestos Cement one piece plain angular ridge 1.22m long	Each	196.65	196.65
251050	Asbestos fibre cement unserrated adjustable ridge for hips	Pair	402.50	402.50
251060	Asbestos fibre cement north light ventilator curves	Each	342.85	342.85
251070	Asbestos Cement north light adjustable ridge 1.22m long	Pair	219.94	219.94
251080	Asbestos fibre cement curved barge boards 6mm thick	Each	219.94	219.94
251090	Asbestos Cement sheets plain 4mm thick	Sqm	139.25	139.25
251100	Asbestos Cement roof light 1.82m long	Each	1552.50	1552.50
251110	Asbestos Cement expansion joint for north light curves	Each	194.06	194.06
251120	3mm thick translucent white acrylic plastic sheet	Sqm	742.70	742.70
251130	Mangalore ridge tiles 20mm thick	Each	20.70	28.75
251140	Mangalore tiles 20mm thick	Each	11.50	10.93
251150	Glass tiles Mangalore Pattern	Each	51.75	32.20
251160	Corrugated Galvanised Sheets of any thickness	quintal	8625.00	8625.00
251170	Galvanised steel plain sheets of any thickness	quintal	8050.00	8050.00
251180	Standard quality hard board sheet 4.5mm thick	Sqm	114.89	114.89
251190	Thermocol sheets of various standard sizes 20mm thick	Sqm	41.26	41.26
	Building Materials			
252010	Surkhi	cum	1955.00	977.50
252020	Moorum	cum	310.50	230.00
252030	Ordinary Portland Cement Grade-53	MT	5497.00	5497.00
252040	Ordinary Portland Cement Grade-43	MT	5290.00	5290.00
252050	Pozzolana Portland Cement (Fly Ash)	MT	5175.00	5175.00
252060	Pozzolana Portland Cement	MT	5175.00	5175.00
252070	White Cement	MT	15410.00	15410.00
252080	Stone Aggregate broken : 50mm nominal size	cum	690.00	649.75
252090	Stone Aggregate broken : 20mm nominal size	cum	1150.00	690.00
252100	Stone Aggregate broken : 10mm nominal size	cum	833.75	575.00
252110	Stone Aggregate broken : 06mm nominal size	cum	691.15	563.50
252120	Coarse sand (Minimum Zone-III)	cum	2817.50	759.00
252130	Fine sand (Zone IV) (Ordinary Sand)	cum	2256.98	608.35
252140	Local sand / Pit sand / Yamuna sand for filing purposes	cum	1194.62	322.00
252150	Red Bajri	cum	1150.00	575.00
252160	Coal Tar	litre	89.70	89.70
252170	Unslaked Lime	quintal	690.00	575.00
252180	Dehradun White Lime	quintal	345.00	172.50
252190	Satna Lime	quintal	690.00	345.00
252200	F.P.S. bricks class designation 7.5	1000 Nos.	6900.00	6440.00
252210	F.P.S. bricks class designation 5.0	1000 Nos.	6325.00	6440.00
252220	F.P.S. bricks tile class designation 10.0	1000 Nos.	10350.00	6210.00
252230	Machine moulded FPS tile bricks of class designation 12.5	1000 Nos.	10350.00	6210.00
252240	Mild steel round bar 12mm dia and below	quintal	4006.60	4006.60
252250	Mild steel round bar above 12mm dia.	quintal	4006.60	4006.60
252260	Twisted steel / deformed bars Gr. Fe 415 (TMT Bars or HYSD Bars) upto 12mm dia.	quintal	4222.80	4222.80
252270	Twisted steel / deformed bars Gr. Fe 415 (TMT Bars or HYSD Bars) over 12mm dia.	quintal	4126.20	4126.20
252280	Twisted steel / deformed bars Gr. Fe 500 (TMT Bars or HYSD Bars) upto 12mm dia.	quintal	4126.20	4126.20

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
252290	Twisted steel / deformed bars Gr. Fe 500 (TMT Bars or HYSD Bars) over 12mm dia.	quintal	4126.20	4126.20	
252300	Mild steel square bars	quintal	3749.00	3749.00	
252310	Fibre glass tissue reinforcement Type II Grade I	Kg	46.00	46.00	Not to be operated
252320	Mild Steel Binding wire as per IS:280	Kg	51.75	51.75	
252330	Extruded burnt flyash clay sewer bricks conforming to IS:4885-1988	1000 Nos.	4830.00	4082.50	
252340	All in One Bajri aggregate 20mm size	cum	575.00	575.00	
252350	Boundary stone (Sand stone variety) top chisel dressed 15cmx15cmx90cm	Each	57.50	57.50	
252360	Red sand stone block	10 cu dm	72.97	72.97	
252370	White sand stone block	10 cu dm	81.08	81.08	
252380	Sand stone slab 45mm to 50mm thick (un-dressed)	Sqm	259.44	259.44	
252390	Stone Boulder Weighing minimum 35 kg each	cum	920.00	529.00	
252400	Stone sets 23cmx15cmx15cm size	100 Nos.	977.50	488.75	
252410	Stone setts of size 25cmx12.5cmx10cm	100 Nos.	690.00	345.00	
252420	Cudappah slab unpolished 65mm-80mm thick	Sqm	772.42	772.42	
	Wood Work / Doors And Windows				
253010	Hydraulic door closer ISI marked (IS:3564-1996)	Each	491.63	491.63	
253020	Welded mesh 50X25mm (10 SWG) MS	Sqm	138.00	138.00	
253030	Fly proof wire mesh	Sqm	74.75	74.75	
253040	MS Grill	Kg	57.50	57.50	
253050	Brass butt hinges (light/ordinary type) : 125mmx70mmx 4mm	10 Nos.	2768.63	2768.63	
253060	Brass butt hinges (light/ordinary type) : 100x70x4 mm	10 Nos.	1979.44	1979.44	
253070	Brass butt hinges (light/ordinary type) : 75x40x2.5mm	10 Nos.	763.31	763.31	
253080	Brass tower bolt (barrel type) 250mmx10mm	Each	161.72	161.72	
253090	Brass tower bolt (barrel type) 200mmx10mm	Each	109.32	109.32	
253100	Brass handles 100 mm with plate 150mmx32mm	Each	207.00	207.00	
253110	Brass handles 75 mm with plate 125mmx32mm	Each	194.06	194.06	
253120	Brass hard drawn hooks and eyes 250mm	10 Nos.	840.94	840.94	
253130	Brass casement stays (straight peg type) 250mm weighing not less than 0.28 kg	Each	155.25	155.25	
253140	Brass helical spring 150mm	Each	582.19	582.19	
253150	Chromium plated Brass curtain rod 20mm dia. 1.25mm thick	metre	452.81	452.81	
253160	Chromium plated Brass curtain rod 25mm dia. 1.25mm thick	metre	1164.38	1164.38	
253170	Bright finished or black enameled mild steel butt hinges 100mm x 58mm x 1.90mm	10 Nos.	152.66	152.66	
253180	Bright finished or black enameled mild steel butt hinges 75mm x 47mm x 1.70mm	10 Nos.	77.63	77.63	
253190	Bright finished or black enameled mild steel butt hinges 50mm x 37mm x 1.50mm	10 Nos.	67.28	67.28	
253200	Bright finished or black enameled mild steel screws 50mm	100 Nos.	97.04	97.04	
253210	M.S. heavy weight butt hinges 100mmx75mmx3.5mm IS:1341 marked	10 Nos.	562.79	562.79	
253220	M.S. heavy weight butt hinges 75mmx60mmx3.1mm IS:1341 marked	10 Nos.	281.39	281.39	
253230	M.S. heavy weight butt hinges 50mmx40mmx2.5mm IS:1341 marked	10 Nos.	168.83	168.83	
253240	Bright finished or black enameled mild steel screws 40mm	100 Nos.	84.10	84.10	
253250	Nickel plated mild steel piano hinges 1 mm thick 35mm wide	metre	32.35	32.35	
253260	Oxidised mild steel sliding door bolt 300mmx16mm	Each	142.31	142.31	
253270	Oxidised mild steel sliding door bolt 250mmx16mm	Each	137.14	137.14	
253280	Oxidised mild steel tower bolt (barrel type) 250mmx10mm	Each	61.19	61.19	
253290	Oxidised mild steel tower bolt (barrel type) 200mmx10mm	Each	49.94	49.94	
253300	Oxidised mild steel tower bolt (barrel type) 150mmx10mm	Each	38.81	38.81	
253310	Oxidised mild steel handles 125mm	Each	13.58	13.58	
253320	Oxidised mild steel handles 100 mm	Each	8.41	8.41	

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
253330	Oxidised mild steel screws 40mm	100 Nos.	71.16	71.16
253340	Oxidised mild steel screws 25mm	100 Nos.	64.69	64.69
253350	Oxidised mild steel screws 20mm	100 Nos.	38.81	38.81
253360	Anodised Aluminium sliding door bolt 300mmx16mm	Each	207.00	207.00
253370	Anodised Aluminium sliding door bolt 250mmx16mm	Each	168.19	168.19
253380	Anodised Aluminium tower bolt (barrel type) 300mmx10mm	10 Nos.	815.06	815.06
253390	Anodised Aluminium tower bolt (barrel type) 250mmx10mm	10 Nos.	685.69	685.69
253400	Anodised Aluminium tower bolt (barrel type) 200x10mm	10 Nos.	556.31	556.31
253410	Anodised Aluminium tower bolt (barrel type) 150mmx10mm	10 Nos.	439.88	439.88
253420	Anodised Aluminium tower bolt (barrel type) 100mmx10mm	10 Nos.	323.44	323.44
253430	Anodised Aluminium handles 125mm with plate 175mmx32mm	10 Nos.	569.25	569.25
253440	Anodised Aluminium handles 100mm with plate 150mmx32mm	10 Nos.	388.13	388.13
253450	Anodised Aluminium handles 75mm with plate 125mmx32mm	10 Nos.	310.50	310.50
253460	Anodised Aluminium kicking plate 50 cm long 100mmx3.15mm	Each	646.88	646.88
253470	Nails 25-100mm long	Kg	51.75	51.75
253480	Nails Upto 25mm long	Kg	51.75	51.75
253490	Glass beads of metal	Kg	115.00	115.00
253500	1mm thick 35mm wide bright finished stainless steel piano hinges	metre	388.13	388.13
253510	Block board construction flush door with commercial ply on both faces 35mm thick	Sqm	974.81	974.81
253520	Block board construction flush door with commercial ply on both faces 30mm thick	Sqm	835.54	835.54
253530	Block board construction flush door with commercial ply on both faces 25mm thick	Sqm	765.92	765.92
253540	Second class teak wood in scantling	10 cu dm	1322.50	649.75
253550	Second class teak wood in planks	10 cu dm	1380.00	690.00
253560	Second class kail wood in scantling	10 cu dm	644.00	322.00
253570	Second class kail wood in planks	10 cu dm	644.00	322.00
253580	Hollock wood in scantling	10 cu dm	690.00	345.00
253590	Hollock wood in planks	10 cu dm	690.00	345.00
253600	Sal wood in scantling	10 cu dm	690.00	345.00
253610	1.0mm thick decorative laminated sheet (Mat finish)	Sqm	297.86	297.86
253620	1.0mm thick decorative laminated sheet (Glossy finish)	Sqm	189.54	189.54
253630	Oxidised M.S. safety chain with hook etc complete. (weighing not less 450 gms) for door	Each	194.06	194.06
253640	Water proof ply 12mm thick	Sqm	656.06	656.06
253650	UV stabilised 2mm thick plain/corrugated GFRP sheet	Sqm	1194.10	1194.10
253660	Float glass sheet of nominal thickness 4mm (weight not less than 10 kg/sqm)	Sqm	297.08	297.08
253670	Float glass sheet of nominal thickness 5.5mm (weight not less than 13.50 kg/sqm)	Sqm	383.73	383.73
253680	Frosted glass sheet of nominal thickness 4mm (weighing not less than 10 kg/sqm)	Sqm	445.63	445.63
253690	Glass sheet (Pin headed) 4mm thick	Sqm	205.85	205.85
253700	Transparent acrylic sheet of approved quality 5mm thick	Sqm	1150.00	1150.00
253710	Ply wood 5 ply with commercial ply on both faces 6mm thick	Sqm	272.33	272.33
253720	Hydraulic door closer bottle type M.S. body with necessary accessories and screws complete	Each	633.94	633.94
253730	Anodised Aluminium hanging type door stopper	Each	25.88	25.88
253740	Galvanised wire mesh of average width of aperture 1.4mm and nominal dia. of wire 0.63mm (Mosquito Proof)	Sqm	234.60	234.60
253750	White face insulating board : 12mm thick / perforated	Sqm	224.37	224.37
253760	Natural colour insulating board : 12mm thick	Sqm	246.10	246.10
253770	Flat pressed 3 layer and graded particle board (medium density) Grade-1 conforming to IS:3087 - 18mm thick	Sqm	305.00	305.00
253780	25mm thick particle board	Sqm	434.37	434.37
253790	Second class deodar teak wood lipping 30mm width x 12mm	metre	42.45	42.45

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
253800	Veneered particle board with commercial veneering on both sides 12mm thick	Sqm	557.04	557.04	
253810	Structural steel such as tees, angles channels and R.S. joists and all like materials	quintal	3910.00	3910.00	
253820	Flats up to 10mm in thickness	quintal	3707.60	3707.60	
253830	Flats exceeding 10mm in thickness	quintal	4485.00	4485.00	
253840	Mild steel plates 6mm and above	quintal	6900.00	6900.00	
253850	Mild steel sheets below 6mm	quintal	6900.00	6900.00	
253860	Mild steel expanded metal 20mmx60mm strands	Sqm	212.75	212.75	
253870	Nut and bolts with washers of all sizes	Kg	86.25	86.25	
253880	4mm thick phenol bonded Bamboo Mat board (595mm X 595mm) conforming to IS:13958-1994	Sqm	754.26	754.26	
253890	9mm thick phenol bonded Bamboo Mat Board conforming to IS:13958-1994	Sqm	1425.71	1425.71	
253900	12mm thick phenol bonded Bamboo Mat Board conforming to IS:13958-1994	Sqm	1610.72	1610.72	
253910	Veneered Bamboo particle board-both side commercial veneer SOGP Grade-II conforming to IS:3097-1980				
253911	9mm thick veneered Bamboo particle board-both side commercial veneer SOGP Grade-II conforming to IS:3097-1980	Sqm	474.81	474.81	
253912	12mm thick veneered Bamboo particle board-both side commercial veneer SOGP Grade-II conforming to IS:3097-1980	Sqm	544.67	544.67	
253913	18mm thick veneered Bamboo particle board-both side commercial veneer SOGP Grade-II conforming to IS:3097-1980	Sqm	685.69	685.69	
253914	25mm thick veneered Bamboo particle board-both side commercial veneer SOGP Grade-II conforming to IS:3097-1980	Sqm	861.64	861.64	
253920	3.5mm to 4mm thick Bamboo Mat corrugated sheet conforming to IS:15476-2004	Sqm	852.27	852.27	
253930	3.5mm - 4mm thick bamboo mat ridge cap (BMRC)	metre	977.50	977.50	
	Distempers Paints and Varnishes				
254010	Linseed oil (double boiled)	litre	129.72	129.72	
254020	Cement primer	litre	112.70	112.70	
254030	Distemper primer	litre	102.47	102.47	
254040	Pink primer (for wood)	litre	102.47	102.47	
254050	Aluminium paint in two containers	litre	182.16	182.16	
254060	Anticorrosive bituminous paint (black)	litre	63.25	63.25	
254070	Synthetic Enamel paint in all shades	litre	170.78	170.78	
254080	Plastic emulsion paint	litre	216.32	216.32	
254090	Roofing paint for iron sheets in red colour	litre	170.78	170.78	
254100	Dry distemper	Kg	51.23	51.23	
254110	Oil bound washable distemper / Acrylic distemper	Kg	56.93	56.93	
254120	Water proofing cement paint / snowcem	Kg	51.23	51.23	
254130	Ordinary varnish	litre	113.85	113.85	
254140	Premixed super white gypsum plaster	Kg	11.39	11.39	
254150	Plaster of Paris	Kg	16.10	16.10	
254160	Premium Acrylic exterior paint	litre	220.80	220.80	
254170	Textured exterior paint	litre	182.16	182.16	
254180	Metal Primer	litre	148.01	148.01	
254190	Red oxide Zinc chromate primer	litre	113.85	113.85	
254200	Superior quality road marking paint	litre	216.32	216.32	
	Roads, Floors, Pavements & Manholes				
255010	Paving bitumen of penetration 80/100 of approved quality	MT	42435.00	42435.00	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
255020	Bitumen emulsion medium setting as per IS:8887 & having a minimum bitumen content of 65%	MT	36800.00	36800.00	
255030	Stone chippings / screenings 4.75mm nominal size	cum	862.50	563.50	
255040	Stone chippings / screenings 12.5/13.2mm nominal size	cum	920.00	1035.00	
255050	Modified Bitumen Refinery produced CRMB-60	MT	46000.00	46000.00	
255060	Rectangular shape 600mmx450mm precast R.C.C. manhole cover with frame - L.D. - 2.5 (as per drawing)	Each	2522.81	2522.81	
255070	Square shape 350mmx350mm precast R.C.C. manhole cover with frame - L.D. - 2.5 (as per drawing)	Each	814.20	814.20	
255080	Circular shape 450mm dia precast R.C.C. manhole cover with frame - L.D. - 2.5 (as per drawing)	Each	1746.56	1746.56	
255090	Rectangular shape 500mmx500mm precast R.C.C. manhole cover with frame - M.D. - 10 (as per drawing)	Each	1552.50	1552.50	
255100	Circular shape 500mm dia. precast R.C.C. manhole cover with frame - M.D.-10 (as per drawing)	Each	1746.56	1746.56	
255110	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20 (as per drawing)	Each	2910.94	2910.94	
255120	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - E.H.D. - 35 (as per drawing)	Each	3881.25	3881.25	
255130	Precast R.C.C. grating with frame 500mmx450mm horizontal grating	Each	732.55	732.55	
255140	Precast R.C.C. grating with frame 450mmx100mm vertical grating	Each	340.40	340.40	
255150	Precast terrazzo tiles 22mm thick (light shade)	Sqm	371.36	371.36	
255160	Precast terrazzo tiles 22mm thick (medium shade)	Sqm	433.25	433.25	
255170	Precast terrazzo tiles 22mm thick (dark shade)	Sqm	495.14	495.14	
255180	Water proofing compound (pH>7, Sp.Gravity 1.06±0.02, conforming to IS:2645)	litre	71.16	71.16	
255190	Glass strip 4mm - 5mm thick 40mm deep	metre	8.49	8.49	
255200	Interlocking C.C. paver block 60mm thick, (M-30) (10 sqm area will be laid and nos./sqm will be assessed for accordingly). The blocks will be placed as closely as possible without any gap for joints.	Sqm	364.84	364.84	
255210	Precast pavement slab 450mmx450mmx50mm (M-30)	Each	115.00	115.00	
255220	Precast C.C. kerb stone M-25	cum	6900.00	6900.00	
255230	8mm thick granite stone tiles (mirror polished of all shades)	Sqm	557.04	557.04	
255240	8mm thick marble tiles (polished) white	Sqm	594.17	594.17	
255250	White marble slab Makrana quality plain veined 18mm thick (slabs to be larger than 0.5 sqm area)	Sqm	1237.85	1237.85	
255260	Udaipur green marble slab plain or alike slabs 18mm thick (slabs to be larger than 0.5 sqm area)	Sqm	742.70	742.70	
255270	Black Zebra marble slab plain or alike slabs 18mm thick (slabs to be larger than 0.5 sqm area)	Sqm	928.38	928.38	
255280	Country tiles 150mmX150mmX12mm thick	1000 nos.	920.00	460.00	
255290	White glazed Ceramic wall tiles conforming to Group B-III of IS:15622	Sqm	208.89	208.89	
255300	Ceramic Tiles				
255301	Of Group B-I-b of IS:15622 (Ceramic Porcelain Tiles) of size 300mmx300mm to 400mmx400mm	Sqm	292.45	292.45	
255302	Of Group B-I-b of IS:15622 (Ceramic Porcelain Tiles) of size above 400mmx400mm upto 600mmx600 mm	Sqm	445.63	445.63	
255303	Of Group B-I-a of IS:15622 (Vitrified tiles) of size upto 400mmx400 mm	Sqm	320.30	320.30	
255304	Of Group B-I-a of IS:15622 (Vitrified tiles) of size above 400mmx400mm upto 600mmx600 mm	Sqm	515.26	515.26	
255305	Of Group B-II Clause 5.1 (for abrasion resistance) of IS:15622 (Ceramic floor Tiles) of size 300mmx300mm	Sqm	299.40	299.40	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
255306	Of Group B-II Clause 5.1 (for abrasion resistance) of IS:15622 (Ceramic floor Tiles) of size 400mmx400mm & above	Sqm	334.22	334.22	
255310	Granite black 18mm thick slab, above 0.2 sqm up to 0.5 sqm (area-wise)	Sqm	1392.58	1392.58	
	Water Supply				
256010	G.I. pipes 15mm dia. medium class	metre	86.25	86.25	
256020	G.I. pipes 20mm dia. medium class	metre	112.70	112.70	
256030	G.I. pipes 25mm dia. medium class	metre	172.50	172.50	
256040	G.I. pipes 32mm dia. medium class	metre	212.75	212.75	
256050	G.I. pipes 40mm dia. medium class	metre	247.25	247.25	
256060	G.I. pipes 50mm dia. medium class	metre	333.50	333.50	
256070	Miscellaneous G.I. pipe fittings as nipples / elbows / sockets / bends for G.I. pipe work	Kg	92.00	92.00	
256080	P.T.M.T. Grating square slit 150mm (Poly Tetra Methylene Terephthalate)	Each	51.75	51.75	
256090	P.T.M.T. Urinal cock 15mm dia. (Poly Tetra Methylene Terephthalate)	Each	85.10	85.10	
256100	P.T.M.T. Bib cock with nozzle 15mm	Each	110.40	110.40	
256110	P.T.M.T. Stop cock (concealed) 15mm	Each	150.65	150.65	
256120	P.T.M.T. extension nipple 15mm	Each	24.15	24.15	
256130	P.T.M.T. extension nipple 20mm	Each	46.00	46.00	
256140	15mm PTMT (Poly Tetra Methylene Terephthalate) bib cock	Each	96.60	96.60	
256150	15mm PTMT bib-cock long body with flange	Each	150.08	150.08	
256160	15mm dia PTMT stop cock(male thread)	Each	96.60	96.60	
256170	20mm dia. PTMT stop cock (Poly Tetra Methylene Terephthalate)	Each	114.71	114.71	
256180	PTMT push cock 15mm dia. (Poly Tetra Methylene Terephthalate)	Each	85.10	85.10	
256190	PTMT 125mm grating with waste hole	Each	37.95	37.95	
256200	C.P.Brass bibcock 15mm	Each	212.75	212.75	
256210	C.P.Brass long nose bibcock 15mm	Each	253.00	253.00	
256220	C.P.Brass long body bibcock 15mm	Each	284.63	284.63	
256230	C.P.Brass stop cock (concealed) 15mm	Each	362.25	362.25	
256240	C.P.Brass angle valve 15mm	Each	245.81	245.81	
256250	Miscellaneous G.I. pipe fittings as nipples / elbows / sockets / bends joints for PTMT pipe work	Kg	92.00	92.00	
256260	Full way brass valve with wheel 15mm dia.	Each	189.75	189.75	
256261	Full way brass valve with wheel 20mm dia.	Each	281.75	281.75	
256262	Full way brass valve with wheel 25mm dia.	Each	391.00	391.00	
256270	15mm nominal dia. C P brass mixer Pillar Tap of weight approx. 2 Kg	Each	2079.20	2079.20	
256280	15mm nominal dia 85 mm long 102mm high PTMT bibcock with washers complete weight approx. 90 gms	Each	149.50	149.50	
	Sanitary Fittings & Drainage Items				
257010	S.C.I. soil, waste and vent single socketed pipe 1.80m long : 75mm dia.	Each	1322.50	1322.50	
257020	S.C.I. soil, waste and vent single socketed pipe 1.80m long : 100mm dia.	Each	1552.50	1552.50	
257030	S.C.I soil, waste and vent single socketed pipe 1.80m long : 150mm dia.	Each	2415.00	2415.00	
257040	S.C.I. Slotted cowl (terminal guard) 75mm/100mm dia.	Each	207.00	207.00	
257050	Polyethylene Vinyl Chloride water storage tank with cover and suitable locking arrangement	litre	6.52	6.52	
257060	Unplasticised P.V.C. connection pipe with brass union 45cm long 15mm bore	Each	34.50	34.50	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
257070	Unplasticised P.V.C. connection pipe with brass union 45cm long 20mm bore	Each	48.30	48.30	
257080	Standard holder bat clamps for sand cast iron or cast iron pipes upto 150mm dia. of any size as specified	Each	28.75	28.75	
257090	S&S C.I. standard specials upto 300mm dia. (heavy class)	quintal	6095.00	6095.00	
257100	Flanged C.I. standard specials upto 300mm dia. (heavy class)	quintal	6095.00	6095.00	
257110	Pig lead	Kg	102.47	102.47	
257120	Ductile iron Class K-9 pipe conforming to IS-8329 100mm dia.	metre	1196.00	1196.00	
257130	Ductile iron Class K-9 pipe conforming to IS-8329 150mm dia.	metre	1794.00	1794.00	
257140	Ductile iron Class K-9 pipe conforming to IS-8329 200mm dia.	metre	2272.40	2272.40	
257150	Ductile iron Class K-9 pipe conforming to IS-8329 300mm dia.	metre	3109.60	3109.60	
257160	S&S C.I. Pipe Specials as per IS:1538 suitable for lead jointing up to 300mm dia.	quintal	6099.60	6099.60	
257170	S&S C.I. Pipe specials suitable for mechanical joint as per I.S.:13382 upto 300mm dia.	quintal	5750.00	5750.00	
257180	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S.:1536 - 100mm dia.	metre	1784.43	1784.43	
257190	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S.:1536 - 150mm dia.	metre	2816.58	2816.58	
257200	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S.:1536 - 200mm dia.	metre	4114.24	4114.24	
257210	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S.:1536 - 300mm dia.	metre	7100.65	7100.65	
257220	Rubber packing / insertion washers of all sizes and thickness	Kg	75.90	75.90	
257230	R.C.C. pipes NP2 class 150mm dia. with collars	metre	276.00	276.00	
257240	R.C.C. pipes NP2 class 250mm dia. with collars	metre	448.50	448.50	
257250	Stoneware pipes grade A (60cm long) 150mm dia.	Each	126.50	126.50	
257260	Stoneware pipes grade A (60cm long) 200mm dia.	Each	201.25	201.25	
257270	Stoneware pipes grade A (60cm long) over 200mm dia. including 300mm dia.	Each	431.25	431.25	
257280	Stone ware spouts 100mm dia. 60cm long	Each	59.80	59.80	
257290	U-PVC pipes (working pressure 4 kg/cm ²) Single socketed pipe 75mm dia.	metre	61.59	61.59	
257300	U-PVC pipes (working pressure 4 kg/cm ²) Single socketed pipe 110mm dia.	metre	124.63	124.63	
257310	UPVC coupler for UPVC drainage pipes 75mm	Each	26.91	26.91	
257320	UPVC coupler for UPVC drainage pipes 110mm	Each	41.86	41.86	
257330	UPVC plain shoe 75mm bend	Each	25.71	25.71	
257340	UPVC plain shoe 110mm bend	Each	46.64	46.64	
257350	UPVC pipe clip 75mm bend	Each	9.57	9.57	
257360	UPVC pipe clip 110mm bend	Each	11.96	11.96	
257370	Miscellaneous UPVC fittings	Kg	460.00	460.00	
257380	White plastic W C seat (solid) with lid C.P. brass hinges and rubber buffers	Each	316.25	316.25	
257390	Black plastic seat (solid) with lid C.P. brass hinges and rubber buffers	Each	322.00	322.00	
257400	Shower rose C.P. brass for 15mm to 20mm inlet 100mm dia.	Each	224.25	224.25	
257410	Shower rose C.P. brass for 15mm to 20mm inlet 150mm dia.	Each	339.25	339.25	
257420	15mm C.P. brass tap short length	Each	178.25	178.25	
257430	C.P. brass toilet paper holder of standard size	Each	226.41	226.41	
257440	H.P. or L.P. ball valve with polythene floats : 15mm dia.	Each	176.41	176.41	
257450	H.P. or L.P. ball valve with polythene floats : 20mm dia.	Each	269.10	269.10	
257460	H.P. or L.P. ball valve with polythene floats : 25mm dia.	Each	381.52	381.52	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
257470	Vitreous china flat back wash basin 630mmx450mm (White)	Each	1067.35	1067.35	
257480	Vitreous china angle back wash basin 600mmx480mm (White)	Each	1067.35	1067.35	
257490	Vitreous china angle back wash basin 400mmx400mm (White)	Each	679.22	679.22	
257500	Vitreous china Indian type w.c. pan size 580mm (White)	Each	977.50	977.50	
257510	Vitreous china orrisa type w.c. pan size 580mm (White)	Each	1552.50	1552.50	
257520	Vitreous china pedestal type water closet (White)	Each	753.25	753.25	
257530	Vitreous china foot rests 250mmx125mmx25mm (White)	pair	69.00	69.00	
257540	32mm nominal dia. flush pipes with clamps for high level flushing cisterns with unplasticised PVC tube	Each	135.70	135.70	
257550	C.I. bracket for wash basin and sinks	pair	166.75	166.75	
257560	Brass bib-cock 15mm dia.	Each	253.00	253.00	
257570	Brass bib-cock 20mm dia.	Each	323.44	323.44	
257580	Brass stop-cock 15mm dia.	Each	222.53	222.53	
257590	Brass stop-cock 20mm dia.	Each	243.23	243.23	
257600	Mosquito proof coupling of approved design	Each	35.65	35.65	
257610	Vitreous china foot rests 250mmx130mmx30mm (White colour)	pair	86.25	86.25	
257620	C.I. grating 100mmx100mm	Each	35.88	35.88	
257630	C.I. grating 150mmx150mm	Each	47.84	47.84	
257640	C.I. grating 180mmx180mm	Each	84.10	84.10	
257650	Vitreous china pedestal for wash basin (White colour)	Each	1015.60	1015.60	
257660	600mmx120mm glass shelf with anodised aluminium angle frame, C.P brass brackets and guard rail of standard size	Each	1610.00	1610.00	
257670	Vitreous china toilet paper holder of standard size	Each	549.85	549.85	
257680	Vitreous china 10 litres low level cistern without fittings (White)	Each	1552.50	1552.50	
257690	Vitreous china 10 litres low level cistern with fittings (White)	Each	1725.00	1725.00	
257700	Coloured Orissa pattern W.C. pan 580mmx440mm	Each	1322.50	1322.50	
257710	Coloured Pedestal type W.C. pan 580mmx440mm (European type)	Each	3277.50	3277.50	
257720	Coloured Vitreous china 10 litre low level cistern	Each	2587.50	2587.50	
257730	Coloured (other than black) solid P.V.C. seat in European W.C. pan	Each	323.44	323.44	
257740	Circular shape 450mm dia. Mirror with Plastic moulded frame	Each	142.31	142.31	
257750	Rectangular shape 453mmx357mm Mirror with Plastic moulded frame	Each	232.88	232.88	
257760	Mirror of superior make glass 60cmx45cm (with 5mm - 6mm thick base complete)	Each	179.40	179.40	
257770	Semi Rigid PVC waste pipe for sink and wash basin 32mm dia. with length not less than 700mm including PVC waste fittings	Each	74.75	74.75	
257780	Semi Rigid PVC waste pipe for sink and wash basin 40mm dia. with length not less than 700 mm including PVC waste fittings	Each	97.75	97.75	
257790	Coloured High density polyethylene poly propylene 10 litres (full flush) capacity controlled low level flushing cistern with fittings	Each	862.50	862.50	
257800	White Vitreous china 10 litres (full flush) capacity controlled low level flushing cistern with all fittings	Each	1437.50	1437.50	
257810	Flushing Cistern P.V.C. 10 litres capacity (low level) (White) (with fittings, accessories and flush pipe)	Each	845.25	845.25	
257820	P.V.C. automatic flushing cistern 5 litres capacity (With Fittings)	Each	862.50	862.50	
257830	White glazed fire clay draining board 600mmx450mmx25mm	Each	1035.00	1035.00	
257840	White vitreous china clay half stall urinal flat back 580mmx380mmx350mm or angle back 450mmx375mmx 350mm with waste fittings as per IS:2556	Each	1782.50	1782.50	

Item No.	Description Of Item	Unit	Rate (Rs.)	
			TVC & PGT Division	MAS, SA, TPJ & MDU Division
257850	CP brass Waste coupling 32mm/40mm	Each	149.50	149.50
257860	CP brass Bottle Trap 32mm/40mm	Each	632.50	632.50
257870	CP brass Towel Ring 215mmx200mmx (37mm from wall) complete with fixing arrangements	Each	547.40	547.40
257880	CP brass Towel Rail (750mm) (With brackets and fixing arrangements)	Each	517.50	517.50
257890	CP brass Towel Rail (600mm) (With brackets and fixing arrangements)	Each	460.00	460.00
257900	CP brass Shelf 450mmx124mmx36mm (With brackets and fixing arrangements)	Each	618.70	618.70
257910	CP brass Soap Dish/Holder 138mmx102mmx75mm (With brackets and fixing arrangements)	Each	239.35	239.35
	Hand Pump Accessories			
258010	Bucket leather best quality for hand pumps 65mm dia.	Each	40.25	40.25
258020	Bucket leather best quality for hand pumps 89mm dia.	Each	46.00	46.00
258030	Handle C.I. of standard shape and size for hand pump No.6 of approved make with bolts and nuts 10mm x 65mm one number in each	Each	207.00	207.00
258040	Plunger C.I. 89mm with M.S. rod 12mm dia. x 450mm long complete with leather bucket 89mm dia. for pump no. 6	Each	138.00	138.00
258050	Strainer brass 40mm dia. 1.5m long for hand pumps	Each	650.90	650.90
258060	All brass cylinder 65mm outer dia. 450mm long complete with all brass plunger, plungers rod socket, all brass poppet/lower valve and bucket leather for deep tube well pump	Each	1610.00	1610.00
258070	12mm round M.S. galvanised connecting rod both ends threaded 3.0m long complete with one G.I. coupling 50mm long fitted one in each length	Each	258.75	258.75
258080	Coupling C.I. 50mm long for 12mm dia. connecting rod	Each	17.25	17.25
258090	Leather seat valve 100mm dia. best quality complete with C.I. weight and G.I. bolts 6mm x 20mm one number in each	Each	23.00	23.00
258100	India Mark-II pump as per IS:9301 complete in all respect including hand pump, cylinder, 6 no. connecting rods of approved quality	Each	6037.50	6037.50
258110	Inspection cover for India Mark-II deep well pump	Each	149.50	149.50
258120	Chain with coupling for India Mark-II deep well pump	Each	115.00	115.00
258130	M.S. galvanised handle for India Mark-II deep well pump (without bearing and chain)	Each	690.00	690.00
258140	C.I. cylinder with brass liner complete with gun metal plunger with leather/mitryl rubber lower valve and plunger rod complete as per IS:9301-1990 (20m - 50m depth)	Each	1150.00	1150.00
258150	Hand pump No. 6 complete with C.I. head and handle and C.I. plunger and C.I. plunger rod with C.I. plunger 89mm including one leather bucket 89mm complete best quality	Each	1207.50	1207.50
258160	Base C.I. heavy 40mm bore for hand pump No. 6	Each	230.00	230.00
	Miscellaneous			
259010	Special Chicks bamboo, lined with blue cloth with tapes, fixed in place with pulleys and ropes complete	Sqm	346.60	346.60
259020	Chicks bamboo, without lining cloth but bound with broad tape 5cm fixed in place with pulleys and ropes complete	Sqm	247.57	247.57
259030	Bamboo ladders with side poles, not less than 50mm dia. and rungs, not less than 40mm dia. and 30cm apart of lengths 4m long	Each	616.40	308.20
259040	Chain link fabric fencing mesh of size 50mmx50mm made of G.I. wire of dia. 4mm	Sqm	212.75	212.75
259050	Chain link fabric fencing mesh of size 25mmx25mm made of G.I. wire of dia. 3mm	Sqm	333.50	333.50
259060	Plastic cane	Kg	132.25	132.25

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
259070	Bleaching powder	quintal	3220.00	3220.00	
259080	Galvanised steel barbed wire	quintal	5290.00	5290.00	
259090	Polyvinyl chloride sheet 400 micron thick	Sqm	160.92	160.92	
259100	Circular C.I. Box for ceiling fan and concealed wiring etc.	Each	74.75	74.75	
259110	Chlorpyrifos 20% E.C. I Lindane 20% E.C. For termite treatment	litre	227.70	227.70	
259120	Aluminium 'T' or 'L' section or any other shapes for misc. works	Kg	197.34	197.34	
259130	Eucalyptus / Safeda ballies 125mm dia. mini 4m long	metre	34.50	25.30	
259140	Casurina ballies / posts 100mm average dia.	metre	29.90	27.60	
259150	Sal wood ballies average 100mm dia.	metre	51.75	23.00	
259160	Bamboos 50mm - 75mm dia. 3m - 6m long	metre	34.50	17.25	
259170	Bamboo matting	Sqm	185.68	185.68	
259180	Cement Concrete Jali 40mm thick	Sqm	557.04	557.04	
259190	Hollock/Poplar ballies 125mm average dia.	metre	40.25	20.70	
259200	Wire mesh (rabbit)	Sqm	59.80	59.80	
259210	Polyester Triangular Synthetic Fibre (6mm to 18mm in length) for mixing in cement works	Kg	386.40	386.40	
259220	Supply of Galvanised Steel wire ropenet, made of 9mm dia. steel wire rope having aperture size of 45cm x 60cm with 6m length hangs	Sqm	402.50	402.50	
259230	Supply of Erosion Control Geomat (for surfacial erosion control) consisting of 2 layers of polymeric netting, having aperture size of 20mm x 20mm and a middle layer of coir as per Specifications. Max. width of rolls/each composite mat shall be 5m	Sqm	74.75	74.75	
259240	Supply of Mechanically Woven Double Twisted Hexagonal Shaped Wire Mesh Gabion Boxes of required sizes, Mesh Type 10mm x 12mm, Zn and PVC coated Mesh Wire dia. 2.7mm/3.7mm (ID/OD), edges of meshes mechanically edged / selvedged with heavy coating of galvanization as per EN 10223-3/ASTM A 975 with partitions at every 1m interval	Cum	1840.00	1840.00	
259250	Supply of Polypropylene Tarred Rope Gabion, fabricated from 9mm dia. rope, 100mm x 100mm Mesh with partitions at every 1m interval	Cum	1725.00	1725.00	
259260	Supply of Biaxial Geo-Grid, made from virgin high density polypropylene, having aperture size of 65mm x 65mm and ultimate tensile strength of 30 kN/m with minimum junction efficiency of 95% & minimum radial stiffness of 350 kN/m (@0.5% strain)	Sqm	172.50	172.50	
259270	Supply of Woven Geotextile made from polypropylene multifilament yarn, having minimum mass of 220 GSM & ultimate tensile strength of 40 kN/m with puncture resistance of 600 N and apparent opening size of 150 microns	Sqm	132.25	132.25	
259280	Supply of Epoxy Items :				
259281	Magnesium poly phosphate based concrete fast repair epoxy	Kg	911.75	911.75	
259282	Gungrade, polyerothane grade crack sealer	Milli litre	3.28	3.28	
259283	Bisphenol Polyerothane coating of 100% epoxy	Kg	2990.00	2990.00	
259284	Two components anti slip epoxy	Gallon	5520.00	5520.00	
259285	Bisphenol and butyl based epoxy	Kg	1563.51	1563.51	
259290	Non-Asbestos fibre cement corrugated apron piece	metre	188.37	188.37	
259300	Non-Asbestos fibre cement eaves filler piece	Each	139.04	139.04	
259310	Non-Asbestos fibre cement special north light curves	Each	411.13	411.13	
259320	Non-Asbestos multi purpose fibre cement board 8mm thick	Sqm	264.59	264.59	
259330	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-16mm outer dia.	metre	33.35	33.35	

Item No.	Description Of Item	Unit	Rate (Rs.)		
			TVC & PGT Division	MAS, SA, TPJ & MDU Division	
259340	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-20mm outer dia.	metre	33.82	33.82	
259350	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-25mm outer dia.	metre	52.47	52.47	
259360	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-32mm outer dia.	metre	84.23	84.23	
259370	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-40mm outer dia.	metre	130.96	130.96	
259380	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-50mm outer dia.	metre	204.25	204.25	
259390	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-63mm outer dia.	metre	321.30	321.30	
259400	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-75mm outer dia.	metre	458.10	458.10	
259410	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 7.4mm-90mm outer dia.	metre	654.09	654.09	
259420	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 11mm-110mm outer dia.	metre	686.02	686.02	
259430	Polypropylene-Random-Co-Polymer (PPR) pipes SDR 11mm-160mm outer dia.	metre	2332.20	2332.20	
259440	Non-Asbestos fibre cement corrugated sheet 6mm thick	Sqm	194.06	194.06	
259450	Non-Asbestos fibre cement close fitting adjustable ridge	metre	303.49	303.49	
259460	Non-Asbestos fibre cement corrugate serrated adjustable ridge	metre	260.13	260.13	
259470	Non-Asbestos fibre cement plain wing adjustable ridge	metre	281.06	281.06	
259480	Non-Asbestos fibre cement unserrated adjustable ridge for hips	metre	291.53	291.53	
259490	Non-Asbestos fibre cement north light curves	metre	291.10	291.10	
259500	Non-Asbestos fibre cement ventilator curves	Each	399.17	399.17	
259510	Non-Asbestos fibre cement barge boards 6mm thick	metre	212.23	212.23	
259520	Non-Asbestos fibre cement ridge finial	pair	232.88	232.88	
259530	Non-Asbestos fibre cement 'S' type louvers	Each	240.70	240.70	
259540	Non-Asbestos multi purpose fibre cement board 6mm thick	Sqm	222.81	222.81	
	New Items To Be Added By Zonal Railways				
259610					
259620					
259630					
259640					
259650					
259660					
259670					
259680					
259690					
259700					