

**BHEL: PS- WR
PRICE BID- PART-II, VOL-III**

BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
100	EARTH WORK IN EXCAVATION, BACKFILLING AND DISPOSAL AS PER SPECIFICATION AND DRAWINGS					
101	Excavation including providing shoring, strutting, sheeting, bracing, draining and pumping out water other than water below ground water table, clearing all grass, vegetation etc. including trimming of excavation bottom, staking, levelling, grading etc. of excavated materials all complete as per specifications, drawings and instructions of the engineer including a lead up to 100 meters and a lift up to 2.0 meters					
i)	In all types of soils including expansive soil, ash, morrum, laterite	CUM	500			
ii)	In ordinary rock (lime stone, sand stone , coal etc.) which can be excavated by means of crow bar, pick axe , pneumatic/hydraulic breaker attachment with excavator (poclain), hammers/tools or any other means of excavators/implements etc. but does not require chiselling, chemical grouting and blasting as per specification	CUM	1,500			
iii)	In hard rock (quartzite, granite, basalt etc.) (blasting Prohibited) by means of chiseling, wedging , chemical grouting etc. and stacking of excavated rock (SOLID HARD STONE BOULDERS) recovered from excavation for inspection and measurements as per specification (Quantity shall be calculated on stock measurement basis by reducing 25% for voids)	CUM	5			
102	Extra over item 101 above, for all types of soil/rock, for additional lifts beyond the initial lift of 2 meters (included in item 1 above) all complete as per specifications, drawings and instructions of the engineer for the following lifts:					
i)	In all types of soils					
a	beyond 2m and upto 4m	CUM	300			

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ii)	In all types of rocks					
a	beyond 2 m and upto 4 m	CUM	400			
b	beyond 4m and upto 7m	CUM	50			
103	Extra over item 101 above for excavation below ground water table including lowering of ground water table to maintain dry working conditions for all activities up to filling/testing, water proofing all complete as per specifications, drawings and instructions of the engineer	CUM	1,000			
104	Extra over item 101 above for carriage of all types of excavated materials beyond the initial lead of 100 m (included in item 1 above) all complete as per specifications, drawings and instructions of the engineer for the following leads					
i)	Carriage beyond initial lead of 100 m but not exceeding 500 m	CUM	100			
ii)	Carriage beyond initial lead of 100 m but not exceeding 2 Km	CUM	1,500			
ii)	Carriage beyond initial lead of 100 m but not exceeding 5 Km	CUM	100			
104A	Transportation/carriage of left over earth in the form of heaps by other agencies near Tech. bldg. & canteen bldg. up to a max. lead of 5km (from work spot) & dispose-off the same out side the plant boundary at designated disposal yard. Quoted rate shall be inclusive of excavation loading, unloading & spreading /levelling of earth at disposal yard as per requirement . (Measurement shall be done as per stock measurement by deducting 25% voids.)	CUM	150			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
105	Filling using selected excavated materials in trenches, plinths, sides of foundations and other underground structures, intake canal embankment etc. in layers not exceeding 250 mm thickness including lead upto 500 m and all lifts and including loading from stockpile ,carting,unloading,filling,watering and compacting,ramming each layer, all complete as per specifications drawings and as directed by the engineer to achieve following densities					
i)	Ordinary manual compaction	CUM	10			
ii)	90% Standard Proctor density	CUM	1,500			
iii)	95% Standard Proctor density	CUM	10			
105A	Filling using selected excavated materials <u>directly from excavation area</u> in trenches, plinths, sides of foundations and other underground structures, pipes, are levelling etc. in layers not exceeding 250 mm thickness including lead upto 100 m and all lift					
i)	90% Standard Proctor density	CUM	100			
ii)	95% Standard Proctor density	CUM	50			
106	Filling using selected materials in trenches, plinths, sides of foundations, in the space below the grade level slab and other under ground structures, pipes etc. in layers not exceeding 250 mm in thickness including all lifts and including excavating, loading , unloading , carting , filling , watering , compacting/ramming each layer all complete as per specifications drawings and as directed by the engineer to the following works					
i)	With selected sand brought from quarries/river bed arranged by contractor, and compacting to 80% relative density etc. for all leads	CUM	10			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
107	Filling in trenches, plinths, area paving and other underground structures with stone (63 mm down graded), in layers not exceeding 200 mm thickness including breaking of boulders to required sizes, filling the interstices with selected sand and compacting	CUM	80			
111	Area dressing/levelling , watering & compaction by power roller including cutting /filling of avg. 200mm in surrounding area of buildings	Sq.m.	500			
112	Removal of slush/ mud deposition from Id excavated pits manually or mechanically before start of actual excavation/work and dispose-off the same to a lead of 2km. After drawing	CUM	50			
113	Dewatering from old excavated pits before start of actual works					
	2 or 3 HP Pumps	Hrs.	50			
	5 HP Pumps	Hrs.	50			
200	PROVIDING AND PLACING CONCRETE WORK INCLUDING COST OF LABOUR, MATERIALS AND EQUIPMENT FOR HANDLING, TRANSPORTATION, BATCHING, MIXING, PLACING, VIBRATING AND CURING, (EXCLUDING COST OF CENTERING, SHUTTERING AND REINFORCEMENT) COMPLETE AS PER DRAWING AND SPECIFICATION UNLESS SPECIFIED OTHERWISE FOR THE FOLLOWING:					
201	Concrete of grade M10 (1 part cement, 3 part sand, 6 part aggregates) as filling course at any level below finished floor level, under and around foundations/floors, drains/trenches, mass dumps etc with 40 mm nominal size graded aggregate.	CUM	50			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
202	Concrete of grade M10 (1 part cement, 3 part sand, 6 part aggregates) as levelling course , under and around foundations/floors etc with 40 mm nominal size graded aggregate.	CUM	100			
203	Concrete of grade M20 (Controlled mix/Design mix as per relevant IS code) in foundations, under floors, paving, trenches, drains etc complete with 20 mm nominal size graded aggregate.	CUM	20			
203A	Concrete coping with 1:1.5:3 on the top of brickwalls in drain/trenches including finishing,curing etc. complete in specified thickness etc.	CUM	10			
205	Concrete of grade M-25 (Controlled mix/Design mix as per relevant IS code) in foundations, under floors etc complete with 20 mm nominal size graded aggregate.	CUM	600			
206	Concrete of grade M-25 (Controlled mix/Design mix as per relevant IS code) in superstructure from finished floor level complete at all heights with 20 mm nominal size graded aggregate	CUM	1,240			
208	Screed concrete 1:2:4 conforming to IS 456 with coarse sand and graded hard stone aggregate 12.5mm/6 mm nominal size on the roof at any level or thickness complete.	CUM	50			
209	Concrete of grade M-25 (Controlled mix/Design mix as per relevant IS code) in precast works like roof slabs/trench covers, fins, lintels, chajas, beams, columns, wall panels, facias etc.at all levels in all kinds of work including formwork/moulds, curing , rendering the top exposed surface with cement sand mortar(1:3) , handling, storing, transporting all leads erection without damage, setting in position with cement sand mortar (1:3) filling the gaps between adjacent precast units with M30concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing , welding etc. complete complete with graded aggregate 20/12.5/10 mm	CUM	50			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
211	Concrete of Grade M-15 (1 part cement, 2 part sand, 4 parts of 12.5 mm graded aggregate by volume) in plinth protection, pipe encasing etc. complete with 20 mm nominal size graded aggregate.	CUM	50			
213	Chipping of concrete in reinforced concrete work, cutting pockets, making openings at all levels and according to shapes, disposal of waste materials upto a lead of 2 km as directed by engineer including equipment, safety precautions etc all complete as per specification	CUDM	200			
213A	Breaking of existing brick work at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	CUM	25			
213B	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc					
i)	Plain cement concrete of all grades	CUM	10			
ii)	Reinforced cement concrete of all grades	CUM	10			
214	Extra over and above St No 213 for cutting of reinforcement , all sizes and types including labour, equipment, return of cut reinforcement to store etc all complete as per specification, drawings and instructions of engineer in charge.	Sqcm	100			
300	SUPPLYING, FIXING AND REMOVING FORMWORK AT ANY ELEVATIONS FOR ALL STRUCTURES, AS PER SPECIFICATIONS AND INCLUDING ALL LABOUR MATERIAL, SCAFFOLDINGS AND CENTEREING COMPLETE INCLUDING POCKETS ETC. FOR THE FOLLOWING:					

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
301	Ordinary form work using good quality of steel plates/plywood below finished ground floor level for foundations, footings, bases of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.	SQM	400			
302	Fairface form work using brand new commercial plywood of required/adequate thickness below finished ground floor level using heavy quality plywood for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc. for exposed concrete work	SQM	500			
303	Ordinary form work using good quality of steel plates/plywood above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches etc. for all heights.	SQM	20			
304	Fairface form work using brand new commercial plywood of required/adequate thickness above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches etc. for all heights	SQM	6,395			
306	Providing, fixing and removing formwork in block-outs/pockets and openings (below 0.1 sqm contact surface area with concrete) at all elevations including cutting, formation of all shapes and all other operations required for making the required shape and size etc. all complete as per specification, drawings and instructions of engineer-in-charge					
i)	Upto 300 mm depth	Nos.	50			
ii)	From 301 mm upto 600 mm depth	Nos.	50			
400	REINFORCEMENTS					

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
401	Taking delivery from BHEL stores/ yard, loading transportation unloading, straightening, cutting, bending, placing at any level, binding in position high yield strength steel reinforcements/TMT bars in concrete including cost of binding wire, labour etc. complete all as per specifications & drawings (TMT bars will be supplied by BHEL free of cost)	MT	175			
402	Taking delivery from BHEL stores/ yard, loading transportation unloading, straightening, cutting, bending, placing in position at any level, binding of mild steel reinforcements in concrete including cost of binding wire, labour etc. complete all as per specifications & drawings.(TMT bars will be supplied by BHEL free of cost)	MT	1			
500	WATER PROOFING AS PER SPECIFICATIONS. (Contractor has to furnish a guarantee for material and workmanship for a minimum period of 10 years.)					
501	Providing and laying nine courses of extra heavy duty water proofing treatment with bitumen felt over roofs consisting of first layer of primer conforming to IS 3384 at the rate of 0.27 lit/Sqm minimum, second, fourth, sixth and eighth layers of residual bitumen applied hot 1.2 Kg/sqmet of area of each course and third, fifth, seventh, ninth layer of roofing felt type-3 grade -1(hessian base self finished felt) all complete as per specifications	SQM	800			
502	Providing and laying 75 thick foam concrete block insulation over roofs including minimum 15 mm cement sand plaster fished smooth over foam concrete and providing of expansion joints at intervals as per the recommendation of manufacturer. Thermal conductivity of concrete shall not exceed 0.125KCL/Sqmm/Degree C and weight shall be from 0.3 to 0.5 gm/cucm. all complete with fillets as per specifications	SQM	800			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
503	Providing and laying chequered concrete tiles over water proofing of minimum size 200 X 200 and minimum thickness 20 mm confirming to IS 13801 including 15 mm thick cement mortar (1:4) bedding. (water proofing paid else where)	SQM	800			
700	M.S. EMBEDMENTS					
701 i	Supply, fabricating and fixing of embedments , MS inserts, pipe sleeves, guide rails, angle pieces, foundation bolts, anchor bolts, rungs of various diameters, plates of dimensions as required including cost of all labour, materials and equipments, transportation, loading , unloading , handling welding rivetting, bolting cutting drilling scaffolding and setting as per specifcation and drawing	MT	2			
702	Fixing of embedments, MS inserts, pipe sleeves, rails, guide rails angle pieces, anchor bolts of various diameters, plates of dimensions as required including cost of all labour, materials/tameplates and equipment for fixing in position, scaffolding and setting in position , tarnsportation from BHEL stores/yard to work spot , loading , unloading, etc complete as per specification	MT	0.50			
703	Providing, fabricating, transporting, erecting and installing at all elevations miscellaneous steel/PVC pipes, expansion fasteners in concrete/brickwall, for all kind of works, including the cost of labour, material and equipment, setting material in concrete , layout, scaffolding, handling at site , cuuting, forming, grinding, drilling, bolting, welding, jointing, testing atc. all complete as per specification, drawings and instruction of engineer-in-charge					
i	MS pipes of all diameters	Quintal	1			
ii	PVC conduits of all sizes	Quintal	1			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
iii	Expansion fasteners (galvanised) of HILTI make or equivalent of safe tension capacity as specified below:					
	250 kg	Each	10			
	500 kg	Each	10			
	750 kg	Each	10			
704	Supply, fabrication, transportation, delivery at site, erection, installation and alignment of Galvanised foundation bolt (Grade-1 of IS:432 & IS:2062) assembly in concrete along with nuts, lock nuts (IS:1363, IS:1364 & IS:3138), anchor plates, stiffner plates, protective tape etc. upto and including 80mm dia 3000mm long including cost of materials , labours, equipments, welding , cutting,grinding , threading , drilling , pipe sleeves etc. all complete as per specification, drawings and instruction of engineer-in-charge	MT	0.50			
800	GROUTING AS PER SPECIFICATION FOR THE FOLLOWING:					
801	Providing and grouting of pocket holes, pipe sleeves of any shape and size under base plates after erection of necessary structural steel work, machinery with mix 1:1:2 (one part Cement : 1part Sand : 2 parts of 6mm down graded stone chips) at any elevation including roughening surface , cleaning , ramming , curing complete (non-shrink hand grout using approved admixture) as per specification and as directed by the Engineer	Cum	2			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
900	DOORS, WINDOWS, VENTILATORS, LOUVERS, ROOF VENTILATORS, ROLLING SHUTTERS, PARTIONS ETC. COMPLETE AT ALL ELEVATION INCLUDING FRAMING, KICK PLATES, STOPPERS AS PER SPECIFICATION AND DRAWINGS (all steel doors, windows and rolling shutters etc. shall be blast cleaned to near white metal surface (Sa 2 1/2), painted with two coat of red oxide zinc primer and finished with two coats of synthetic enamel paint confirming to IS 2074)					
901	Providing, fitting and fixing solid core flush door shutter as per IS2202 part II, 35 mm thick homogeneous particle board (decorative veneer prelaminate on both sides) bonded with BWP type phenol formaldehyde synthetic resin, particle board core conforming to IS 3087 type I, 35X12 mm thick teak wood beading all around including preparation of working drawings, but hinges, tower bolts, sliding bolt handles, knots, door stoppers (all fittings shall be anodised aluminium color dyed) , screws etc complete as per drawings, specifications and instructions of engineer-in-charge	SQM	20			
901A	Providing and fixing 12 mm thick MDF particle board , decorative veneer (prelaminated) on both sides, as panels in aluminium framed door shutter, fixed with necessary snap-on-beading (excluding the cost of aluminium works).	SQM	10			
901B	Providing and fixing 35 mm thick prelaminate particle board panel , decorative veneer (prelaminated) on both sides, as panels in aluminium framed door shutter, fixed with necessary snap-on-beading (excluding the cost of aluminium works).	SQM	65			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
902	Providing and fixing openable/fixed steel windows and ventilators (single & double shutter) with steel sections as per IS:1361 including wire mesh, guard bars as per relevant IS, painting with minimum 2 coats of synthetic enamel paint on primer complete	SQM	100			
903	Providing and fixing steel single or double door shutters. Shutters shall be 45mm thk flush design comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centers side, top, bottom edges of shutter shall be of pressed steel channels of 1.2mm thk voids to be filled with mineral wool (48 kg/cum density) including all fittings like tower bolts, handles, stoppers, aldrops etc. and painting with minimum 2 coats of synthetic enamel paint on primer complete.	SQM	100			
904	Providing and fixing fire proof steel doors (single or double shutter) with panic devices shall be 45mm thk flush design comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centers including all fittings, shop painting with approved post office/signal red color fire resistant paint and mineral wool insulation (64 kg/cum density) complete and shall be fire proof as per IS:3614, TAC requirements and as per specification. Minimum ratings shall be 2 Hrs.	SQM	5			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
905	Providing and fixing anodised aluminium work (Hindalco/Jindal make) for doors, windows, ventilators and partitions etc with extruded standard tubular and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, anodised and electro color dyed to required shade according to IS 1868 (minimum anodic coating of grade AC15), fixed with rawl plugs, expansion fasteners, screws or with fixing clips, including necessary fillinf of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-mettalic protection etc. including preparation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc.), CP brass/stainless steel screws, providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing shall be paid seperately).	KG	4,500			
906	Providing and fixing of over head hydraulic door closers of approved make & quality as directed by Engineer.	Nos	60			
907	Providing and fixing floor mounted Hydraulic door closer of approved make & quality as directed by engineer	Nos	2			
908	Providing and fixing pressed steel frames fabricated from 1.6 mm thk gauge M.S sheet mortised, reinforced strikes, hold fasts, adjustable floor anchors, floor tiles/weather bars etc. complete as per specifications.	KG	1,000			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
909	Providing and fixing in position rolling shutters of approved make as per IS 6248, made of 80x1.25mm M.S laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation including wire springs top cover, 3coats of approved enamel paint etc., all complete as per specification- Mechanically operated.	SQM	35			
910	Providing and fixing in position rolling shutters of approved make as per IS 6248, made of 80x1.25mm M.S laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation including wire springs top cover, 3coats of approved enamel paint etc., all complete as per specification- Hand operated.	SQM	20			
913	Providing, fitting and fixing of glazing including poly carbonate sheet of superior (selected) quality, first grade class, at various elevations, where required, cleaning after fixing, with all labour and material etc. complete as per specification, drawing and instructions of engineer in charge.					
i)	5.5 mm clear float glass	SQM	520			
ii)	6 mm wired glass	SQM	5			
iii)	5.5 mm tinted glass	SQM	5			
iv)	Two nos. 6 mm thick clear toughened safety glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	5			

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
914	Providing, fitting and fixing heavy duty minimum six lever mortised lock of godrej or equivalent make with handles or knobs to single and double leaf door (wooden/steel/aluminium) with duplicate set of keys and masterkeyed locks, openable from one side by the key and from the other side by the handle etc. all complete as per drawing, specification and instruction of engineer in charge.	Each	51			
915	Providing and fixing PVC doors of varying thickness of sintex or equivalent make including all fitting & fixtures as per specification, drawing and instructions of engineer in charge.(Al framing, if any, will be paid elsewhere)	SQM	50			
1000	BRICKWORK MASONRY INCLUDING SUPPLY OF MATERIAL, COST OF LABOUR ETC. COMPLETE, AS PER SPECIFICATIONS.					
1001	Providing brick work in cement mortar 1:6 (1 part cement & 6 parts coarse sand) in walls, chambers etc. in thickness varying from 230mm to 460mm at all depths, places and positions below plinth including raking out joints, curing, scaffolding etc. complete excluding plastering and painting.					
i)	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2	CUM	200			
1002	Providing brick work in cement mortar 1:6 (1 cement 6 coarse sand) in walls, chambers etc. in thickness 230mm at all heights, places and position above plinth including raking out joints, curing, scaffolding etc complete excluding plastering and painting.					
i)	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2	CUM	1,500			

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1004	Providing brick work in cement mortar 1:4 (1 cement 4 coarse sand) in partition walls , chambers etc. in thickness 115mm at all heights, places and position above or below plinth/graded level including providing H.B. wetting at every third layer, raking out joints, curing, scaffolding etc complete excluding plastering and painting as per specification.					
i)	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm ²	SQM	100			
1005	Providing brick soling spreading of earth, ramming, watering including 12mm thick cushion of sand complete but excluding excavation and disposal of surplus earth (excavation and disposal of surplus earth shall be measured under applicable item). Using brick on edge.					
i)	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm ²	SQM	25			
1100	DAMP PROOF COURSE INCLUDING ALL MATERIALS LABOUR, SHUTTERING, CENTERING, CURING ETC., COMPLETE WITH THICKNESS AS SPECIFIED/SHOWN ON DRAWINGS.					
1101	Damp Proof Course 50mm thk. 1:1.5:3 concrete (10mm down aggregate) with 2% of approved admixture of water proofing compound. Hot bitumen @ 1.7Kg./sqm shall be applied before & after the DPC as per specification.	SQM	70			
1200	CEMENT MORTOR PLASTER INCLUDING ALL MATERIALS SCAFFOLDING, CURING ETC. COMPLETE AS PER SPECIFICATION					

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SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1201	Providing 12mm/15 mm thick plaster in cement mortar 1:6 on walls, finished to a smooth finish as per specification.	SQM	3,500			
1203	Providing 12mm/15 mm thick plaster in cement mortar 1:6 on walls with a paste of neat cement @1kg/sqm and rubbed smooth with trowel as per specification.	SQM	100			
1204	Providing 20 mm thick plaster in two layers in cement mortar 1:6 on walls finished to a wooden float/smooth/rough finish as per specification.	SQM	4,500			
1205	Providing 6mm thick plaster in cement mortar 1:4 on ceilings finished to a smooth finish as per specification.	SQM	2,500			
1206	Providing and making decorative plaster over existing plastered surface of all types and design on walls, ceilings, arcs, columns with various thickness upto 20 mm including finishing all complete.	SQM	500			
1207	Providing Plaster of Paris 2 mm thick punning over finished plaster surface and finished with smooth surface as per specification.	SQM	4,500			
1208	Providing screed/grading plaster of average 20 mm thickness in ratio 1:6 nominal by volume including finishing smooth and even etc. all complete at all levels above or below grade level.	SQM	2,200			
1209	Providing and making decorative interior plaster of heritage finish over existing plastered surface of all types and design on walls, ceilings, arcs, columns including finishing all complete.	SQM	50			
1210	Forming groove of uniform size from 12X12 mm upto 20X15 mm in plastered surface as per approved pattern, using wooden battens nailed to the under layer, including removal of wooden battens, repair of the edges of plaster panel and finishing the groove etc	RM	150			

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PRICE BID- PART-II, VOL-III

BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1211	Providing drip coarse on plastered surface at all elevations for all type of work such as chajjas, parapet, projections etc. including scaffolding, finishing etc. complete with all labour, tools and plants as per specification, drawing and instructions of engineer in charge.	RM	200			
1300	FINISHES, PAINTING TO CONCRETE, PLASTERED SURFACES, SURFACE PREPARATION INCLUDING ALL MATERIALS, LABOUR, SCAFFOLDING ETC. ALL COMPLETE					
1302	Providing and applying two or more coats of white wash/ colour wash as per IS 627 of approved brand and manufacture to give an even shade including a priming coat as per specifications.	SQM	2,000			
1303	Providing and applying two or more coats of oil bound destemper as per IS 428 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline includ	SQM	1,000			
1304	Providing and applying two or more coats of dry distempering of approved brand and manufacture to give an even shade including a priming coat with distemper primer complete.	SQM	500			
1306	Providing and applying two or more coats of acid/alkali resistant chlorinated rubber paint of approved brand and colour to floors, walls and ceiling including preparation of surface to receive paint, providing and applying bitumen primer confirming to IS 158 complete all as per manufacturer's recommendations and as approved by engineer, at all heights above or below grade level, complete as per specifications.	SQM	100			

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PRICE BID- PART-II, VOL-III

BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1307	Providing and applying two or more coats of approved polyurethane paint over a coat of approved primer on all woodwork as per specifications.	SQM	150			
1308	Providing and applying two or more coats of oil resistant paints epoxy based and ammine cured, 150 micron over primer of approved grade and manufacture to give an even shade.	SQM	100			
1309	Providing and applying two or more coats of acrylic emulsion paint as per IS 5411 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline	SQM	150			
1311	Providing and applying resin bonded granular textured finish, for external applications shall consist of crushed stone/quartz chips of .5 mm to 2.5 mm size and of approved natural color/shade and bonded with synthetic resins, adhesives and additives altogether in a single pack mix, applied on cured and dried plaster surface with a dry film thickness of minimum 2 mm. The final finish shall have UV resistance, fungus, bacterial resistance properties all complete with grooves filled with poly sulfide sealant of matching color and shade as per specification/drawing/approval of engineer in charge.	SQM	750			
1312	Providing and applying two or more coats of water proof cement paint of approved make and color on exterior surface at all heights including material, labour, scaffolding, curing etc complete as per specification.	SQM	3,750			
1400	FLOORING AND SKIRTING INCLUDING ALL MATERIALS, LABOUR, CURING, POLISHING, FINISHING, EXPANSION JOINTS, GROOVES, ETC. COMPLETE IN ALL RESPECTS AS SHOWN ON DRAWINGS AND DESCRIBED IN SPECIFICATIONS. (Under bed to be paid seperately under relevant item)					

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PRICE BID- PART-II, VOL-III

BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1401	Providing and laying 40 mm thick heavy duty cement concrete flooring with metallic hardener pigmented topping of 12 mm thick uniform graded treated iron particles in flooring complete as per specification.	SQM	1,000			
1406	Providing and laying removable false flooring with fire resistant particle board panels bonded by phenol formaldehyde of size 610X610 mm with all panel edges finished to a tolerance of +- 0.2 mm including 2 mm thick non static PVC top and lipping, supporting arrangement as per specification, drawings and engineer in charge.	SQM	50			
1407	Providing & fixing chemical resistant (Acid & Alkali) Tiles as per IS 4860 of minimum thickness 40 mm thick in flooring/Dado .The tiles shall be abrasion resistant and durable. The potassium silicate 6 mm thick mortar as per IS 4832 used for setting or for under bed shall be durable strong and chemical resistant epoxy mortar including pointing etc. after laying bitumen primer as per IS 158 and 12 mm thick bitumastic as per IS 9510 and IS 412 complete as per specification.	SQM	50			
1408	Providing & fixing chemical resistant (Acid & Alkali) Tiles as per IS 4457 of minimum thickness 20 mm thick in flooring/Dado . The tiles shall be abrasion resistant and durable. The potassium silicate as per IS 4832,6 mm thick mortar used for setting or for under bed shall be durable strong and chemical resistant epoxy mortar including pointing etc. after laying bitumen primer as per IS 158 and 12 mm thick bitumastic complete as per IS 9510 and IS 412 and as per specification.	SQM	45			
1419	Providing and laying colored Ceramic Tiles 5mm thick in dado of reputed manufacturer of approved finish shade and colour.					

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1410	Providing and laying polished Kota stone 20 mm thk in flooring The kota stone slabs/tiles laid over under bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. complete.	SQM	200			
1411	Providing polished Kota stone 20 mm thk in skirting projecting 6mm from adjacent plaster all complete .	SQM	5			
1412	Providing and laying polished Granite stone of approved color and texture 20 mm thk in flooring. The granite stone slabs/tiles laid over under bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. complete .	SQM	30			
1413	Providing and laying polished Granite stone 20 thk in skirting, facia and dado including pigments, curing, grinding, granite polishing etc. complete.	SQM	25			
1414	Providing and laying 7 mm thick vitrified ceramic tiles of polished variety of size 300x300 or 600X600 from reputed manufacturer, complete as per specification.	SQM	1,500			
1415	Providing and laying 7 mm thick vitrified ceramic tiles of unpolished variety of size 300x300 from reputed manufacturer, complete as per specification.	SQM	200			
1420	Providing and laying 40 mm thick heavy duty cement concrete flooring with cement concrete mix 1:2:4 (1 part cement, 2 parts sand and 4 parts stone chips 12.5 mm well graded) with required finish as per specification, drawing and instructions of engineer	SQM	20			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1421	Providing and laying precast mosaic tiles 20 mm thick of approved shade with marble chips of sizes upto 6 mm laid in floors, skirtings and landings, jointed with neat cement slurry with pigment to match the shade of tiles including rubbing and polishing complete	SQM	100			
1422	Providing and laying 12 mm thick cast in situ terrazo finish consisting of marble chips of size 1 mm to 12 mm nominal size laid in white/grey cement or mixture of both in propotion 1:1.5 (1 part cement, 1.5 parts chips) with marble powder 3:1 (3 parts cement & 1 part of marble powder)	SQM	100			
1423	Providing and fixing dividing strips in joints of cast in situ floorings at various elevations, finishing, all labour, material etc. complete as per drawing, specification and instructions of engineer in charge.					
i)	Glass strips 40 mm wide and minimum 6 mm thick.	RM	200			
ii)	Aluminium strips 40 mm wide and minimum 3 mm thick.	RM	200			
1600	PROVIDING AND FIXING FALSE CEILING INCLUDING SUPPLY OF CEILING MATERIAL, WORKING LAYOUT DRAWINGS AND DETAILS, SUSPENSION SYSTEM AND ALL OTHER MATERIALS REQUIRED FOR THE WORK INCLUDING MAKING RECESS FOR LIGHT FIXTURES, ALUMINIUM DIFUSERS, FIRE ALARMS ETC., POLISHING/PAINTINGS, LABOUR ETC., ALL COMPLETE AS PER SPECIFICATION.					

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PRICE BID- PART-II, VOL-III

BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1601	Providing and fixing glass reinforced gypsum (GRG) ceiling system consisting of supporting grid system forming panels of specified size, suspended from RCC slab/structural steel or catwalkway grid above with 4 mm (minimum) galvanised wires (rods) with special height adjustment clips, including preparation of working drawing, providing openings for AC ducts, return air grills, light fixtures etc (but excluding the cost of catwalkway grid) all complete as per drawings, specification and instructions of the engineer.					
i)	12 mm thick GRG board with galvanised light gauge steel load bearing supporting GI frame and finished flat.	SQM	150			
ii)	12 mm thick GRG board in profile (dome etc.) with galvanised light gauge steel load bearing supporting GI frame and finished flat.	SQM	10			
1602	Providing and fixing prepainted coil coated steel ceiling system consisting of 0.5mm thick coated (as per IS277) galvanised to grade 180 mild steel (as per IS513), with regular modified polyester coating (DFT-10 microns) of required color and shade on the exposed surface and supporting grid system of roll formed double web design galvanised steel Tees 24mm X 38mm (with prepainted steel capping of approved shade and color) forming panels of specified size, for tile type panels, and roll formed stove enamelled 0.6mm thick steel carrier for fixing of lineal type panels by clip on arrangement, suspended from RCC slab/structural steel or catwalkway steel channel grid above with 4mm (minimum) galvanised wires (rods) with special height adjustment clips, including preparation of working drawings, providing openings for AC ducts, return air grills, light fixtures etc but excluding the cost of catwalkway all complete as per drawings, specifications and instructions of engineer					
i)	Lineal pattern (closed type) of 100 mm nominal width with carrier support	SQM	500			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1700	PROVIDING AND FIXING RAIN WATER DOWN TAKE PIPES INCLUDING 2 COATS OF APPROVED PAINT OVER A PRIMARY COAT, ALL SPECIALS AND ACCESSORIES ETC. COMPLETE AS PER SPECIFICATION.					
1701	GI down take pipes conforming to IS1239/IS3589 as per specification of following dia.					
i)	100 mm dia	RM	150			
ii)	150 mm dia	RM	50			
1702	CI down take pipes conforming to IS1230 with lead joints as per specification of following dia.					
i)	100 mm dia	RM	45			
ii)	150 mm dia	RM	10			
iii)	200 mm dia	RM	10			
1800	MISCELLANEOUS					
1806	Taking delivery of materials from BHEL store/yard, laying of earthing mats/rods including cost of consumables , labour , transportation , loading, unloading, cutting to length, welding, application of anticorrosive paints etc. complete as per specification and as directed by Engineer-in-charge. Excavation , backfilling and filing with sand (if any) shall be paid under relevant items.(Steel required for Earth Mat will be supplied by BHEL free of cost)	MT	10			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
1807	Providing and fixing weep holes in Drains consisting of 100 mm dia LDPE pipe sleeves along with single side covering for the pipe mouth with galvanised welded wire fabric of 20 mm sq. opening along with 300 X 300 mm sq., 300 mm deep, 40 mm aggregates to cover fabric mesh mouth complete as directed by engineer in charge.	Nos.	10			
1807 A	Providing and fixing weep holes in Drains consisting of 75 mm dia AC pipes in brickwalls of drains	Nos				
1808	Providing and fixing GI rungs in concrete/brick walls at all elevations including @ zinc coating shall not be less than 900 g/sqm all complete.	KG	100			
1811	Providing and fixing LDPE pipes in cable duct banks, openings in RCC work at all elevations of following sizes including cutting, fixing and levelling in position as per drawings, specifications all complete.					
	i) 100 mm dia	RM	10			
	ii) 150 mm dia	RM	10			
	iii) 200 mm dia	RM	22			
	iii) 250 mm dia	RM	25			
1811(a)	Providing and fixing HDPE pipes in cable duct banks, openings in RCC work at all elevations of following sizes including cutting, fixing and levelling in position as per drawings, specifications all complete.					

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
	I) 100 mm dia	RM	5			
	ii) 150 mm dia	RM	5			
	iii) 200 mm dia	RM	5			
	iii) 250 mm dia	RM	5			
2100	WATER SUPPLY					
2101	Providing and fixing in position tested heavy duty type chromium plated brass long neck bib cocks including sockets, union, nut etc. complete 15mm nominal bore.	NO.	10			
2102	Providing and fixing in position heavy duty brass stop cock of approved quality including all specials etc. complete as directed by Engineer 15mm nominal bore.	NO.	10			
2103	Providing and fixing in position heavy duty brass full way valve with wheel of approved quality 25mm nominal bore.	NO.	5			
2105	Providing and fixing GI pipes of class B-Medium complete with GI sockets, unions, elbows, tees, nipples etc. and clamps including cutting and making good the walls etc. complete (internal work) 15 mm nominal bore.	RM	100			
2106	Providing and fixing GI pipes of class B-Medium complete with GI fittings a clamps including cutting and making good the walls etc. complete (internal work) 20 mm nominal bore.	RM	50			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2107	Providing and fixing GI pipes of class B-Medium complete with GI sockets, unions, elbows, tees, nipples etc. and clamps including cutting and making good the walls etc.complete (internal work) 25 mm nominal bore (N.B).	RM	50			
2108	Providing and fixing GI pipes of class B-Medium complete with GI sockets, unions, elbows, tees, nipples etc. including trenching & refilling anti-corrosive paint etc. complete (external work) 15mm nominal bore (N.B).	RM	40			
2109	Providing and fixing GI pipes of class B-Medium complete with GI sockets, unions, elbows, tees, nipples etc. including trenching & refilling anti-corrosive paint etc.complete (external work) 20mm nominal bore (N.B).	RM	20			
2110	Providing and fixing GI pipes of class B-Medium complete with GI sockets, unions, elbows, tees, nipples etc. including trenching & refilling anti-corrosive paint etc.complete (external work) 25mm nominal bore (N.B).	RM	10			
2111	Providing and fixing GI pipes of class B-Medium complete with GI sockets, unions, elbows, tees, nipples etc. including trenching & refilling anti-corrosive paint etc.complete (external work) 50mm nominal bore (N.B).	RM	10			
2112	Providing and fixing 610mmx453mmx6mm thk mirror from reputed mirror manufacturer. Mirror shall be mounted with glass adjustable revolving CP brackets etc. complete with CP screws as per specification.	NO.	10			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2113	Providing and fixing 610mmx127mmx6mm thk clear glass with C.P Guard rails and mounted on C.P. brackets etc. complete as per specification.	NO.	6			
2114	Providing and fixing 20mm dia chromium plated M.S. pipes wall mounted towel rod with C.P. brackets etc. all complete as per specification.	NO.	5			
2115	Providing and fixing C.P. soap holder mounted with C.P. screws etc.complete as per specification.	NO.	5			
2116	Providing and fixing C.P. liquid soap dispenser. Dispenser shall be round and easily revolving with removable threaded nozzle and mounted on C.P. brackets etc.complete as per specification.	NO.	5			
2117	Providing and fixing glazed vitreous wall mounted paper holder with suitable cover cum cutter fitted with CP screws etc. complete as per specification	NO.	5			
2118	Providing and fixing chromium plated brass shower rose with 15 or 20 mm inlet all complete.	No.	2			
2119	Providing & fixing P.V.C. water tank (Syntex or equivalent) in position . The work to including making all necessary inlet & outlet pipes, fixture, ball cocks, valves etc. all complete as per specification at all heights and levels					
ii)	1000 Litres	NO.	1			
iii)	1500 Litres	NO.	1			
iv)	2000 Litres	NO.	2			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2200	SANITARY WORKS					
2201	Supply and fixing vitreous china wash basin size 600x450 with R.S. or C.I. brackets painted white, 15mm chromium plated brass hot & cold faucets with nylon washers, chromium plated brass chain with rubber plug 32mm chromium plated brass bottle trap and waste of standard pattern, 32mm dia chromium plated brass trap unions, plastic connection pipe with chromium plated nuts, cutting and making good the walls where required etc. complete as per specifications	NO.	15			
2202	Providing and fixing approved vitreous china acid/alkali resistant laboratory sink of size 600x450x200mm with R.S. or C.I. brackets, chromium plated brass chain with rubber plug 40mm, CP brass waste and 40mm CP brass bottle trap with necessary union complete including painting the fittings, cutting and making good the wall where required as per specification.	NO.	2			
2203	Providing and fixing colour European type water closet with siphon, open front solid plastic seat and plastic cover, low level 12.5 litre glazed stone water flushing cistern with valveless fittings, necessary C.P connections etc. complete as per specification.	NO.	3			
2204	Providing and fixing glazed vitreous china pan with foot rests and high level 12.5 litre C.I flushing cistern with valveless fittings, necessary C.P connections, foot rests shall be made of white glazed vitreous china with chequered surface allcomplete with cistern painting, C.I brackets etc. as per specification.	NO.	7			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2205	Providing and fixing wall type glazed vitreous china urinals with C.I automatic flushing cistern approximately once every five minutes for every four urinals (max.) with flush pipes, lead pipes, gratings, CP bottle traps and necessary C.P fittings all complete as per specifications.	NO.	10			
2206	Supply, laying and jointing 75mm dia heavy duty cast iron pipes including bends, branches and all other necessary fittings, lead cocking, a coat of bitumenous paint, M.S holder bats/clamps, cutting and making good the walls and floors, jointing, testing etc. all complete and as per specifications.	RM	25			
2207	Supply, laying and jointing 100mm dia heavy duty cast iron pipes including bends, branches and all other necessary fittings, lead caulking, a coat of bitumenous paint, M.S holder bats/clamps, cutting and making good the walls and floors, jointing, testing etc. all complete and as per specifications.	RM	50			
2208	Supply, laying and jointing 150mm dia heavy duty cast iron pipes including bends, branches and all other necessary fittings, a coat of bitumenous paint, M.S holder bats/clam lead caulking, a coat of bitumenous paint, M.S holder bats/clamps, cutting and making good the walls and floors, jointing, testing etc. all complete and as per specifications.	RM	100			
2209	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 150mm dia , as per specifications.	RM	25			
2210	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 200mm dia , as per specifications	RM	25			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2211	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 250mm dia , as per specifications.	RM	25			
2212	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 300mm dia , as per specifications	RM	15			
2213	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 500mm dia , as per specifications.	RM	20			
2214	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 600mm dia , as per specifications.	RM	20			
2215	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. complete 900mm dia , as per specifications.	RM	20			
2216	Providing, laying light duty non pressure NP2 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc. as per specifications for dia:					
i)	150mm	RM	10			
ii)	250mm	RM	10			
iii)	300mm	RM	5			
2217	Providing and fixing C.I Manhole cover of size 600mmx450mm including frame from reputed manufacture all complete as per specifications	NO.	2			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2218	Providing and fixing circular heavy duty man hole cover of 600mm dia with frame all complete as per specification.	NO.	6			
2219	Providing and fixing square mouth S.W Gully trap grade 'A' complete with CI grating, brick masonry chamber and watertight CI grating, brick masonry chamber and water tight CI cover with 300x300mm (inside) the weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg as per drawing and specifications etc. all complete size 100x100mm P or S Type.	NO.	1			
2220	Providing and fixing square mouth S.W Gully trap grade 'A' complete with CI grating, brick masonry chamber and watertight CI grating, brick masonry chamber and water tight CI cover with 300x300mm (inside) the weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg as per drawing and specifications etc. all complete size 150x100mm P or S Type.	NO.	1			
2221	Providing and fixing square mouth S.W Gully trap grade 'A' complete with CI grating, brick masonry chamber and watertight CI grating, brick masonry chamber and water tight CI cover with 300x300mm (inside) the weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg as per drawing and specifications etc. all complete size 150x150mm P or S Type.	NO.	5			
2222	Providing and fixing C.I. floor traps with C.P jalli complete as per specification.	NO	10			
2223	Providing and installing approved brand single tap water cooler of 80 L cooling capacity complete in all respect.	NO	2			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2224	Providing and installing approved brand single tap water cooler of 150 L cooling capacity complete in all respect.	NO	1			
2225	Providing and fixing white vitreous urinal partitions all complete as per specification.	NO.	6			
2300	STRUCTURAL STEEL WORKS					
2301	Taking delivery from BHEL stores/ yard, loading, transportation to work site, unloading, fabrication, erection, alignment, welding, primer painting (primer coat consisting of 2 coats of redoxide zinc-chromate as per IS:2074 & IS:1477 (Parts I & II). One coat to be applied at shop and the other after erection) of structural steel made from mild steel conforming to IS:2062, pipes conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052 and mild steel rounds, at all elevations involving rolled sections (including mild steel rounds), built up sections fabricated out of plates, rolled sections and combination of plates and rolled sections, in columns, beams, gantry girders, monorails etc.	MT	5			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
	straightening, making cutting plan, cutting,bending, rolling, grinding, drilling, bolting, erection bolts & nuts (weight erection bolts & nuts not payable, Supply of permanent bolt of grade Cmild steel bolts & nuts to be paid separately under ST NO. 2310 (i)), assembly, edge preparation, preheating(& use of low hydrogen/ radiogenic electrodes as per specification), post heating,testing of welders, inspection of					
	welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures (Scaffolding, Access ladders, Working Platforms etc.), setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, dismantling and removal of all temporary structures (STRUCTURAL STEEL SHALL BE ISSUED BY BHEL FREE OF COST)					
2304	Providing & application of synthetic enamel paint of Berger or approved equivalent make and colour in two coats of minimum 50 micron total thickness (DFT) already having primer coats (as per ST NO. 2301) at all elevations to achieve an even shade with all materials, labour, equipment, handling, including protection and cleaning, scaffolding etc. complete as per specification, drawings and instructions of the Engineer.(Total thickness (DFT) including primer shall not be less than 100 micron.)		5			

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BOQ FOR TECHNICAL BUILDING and CANTEEN BUILDING (TS NO :BHE/PW/PUR/ BST- T&C BLD/503)						
SL. NO	DESCRIPTION	UNIT	Technical & Canteen building	Rate in Rs (Figure)	Rate In Rs (Words)	Amount In Rs
2308	Supplying, fabrication , transportation, erection and alignment of factory made electroforged gratings with steel conforming to IS:2062 at all elevations including preparation of design drawings and fabrication drawings in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and antiskid nosing in treads, fixing clamps etc. complete with other fittings and fixtures including all taxes, duties, transportation, packing, grinding, drilling, bolting (supply of permanent grade 'C' mild steel bolts and nuts to be paid separately under ST NO. 2310 (i), all welding, edge preparation, blast cleaning of steel surfaces to near white metal surface (Sa 2 1/2) followed by two coats of red oxide zinc-chromate primer and two coats of approved colour, enamel finish paint, testing, complete as per specifications, drawings and instructions of the Engineer.	MT	5			
	TOTAL OF ALL ABOVE ITEMS IN RS					
	REBATE IF ANY ON TOTAL QUOTED COST IN %					
	NET COST (TOTAL- REBATE) IN RS					
	Net cost quoted In word - Rs					