

Tender for Construction of Armoury House for CISF, BNPM premises, Mysuru.

BNPM/TEN/73/Armoury House/2018-19 Dated 07.05.2018

Schedule of Price

Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
	1	EXCAVATION				
		SITE CLEARANCE				
1	1.01	Clearing of shrubs including uprooting of vegetation, grass, brushwood, trees and saplings of girth upto 300 mm measured at a height of 1 m above ground level, removing the roots and removal of rubbish upto any distance within the OWNER'S premises and as per the direction of engineer incharge	Sq.m	410.00		
		SITE GRADING				
2	1.02	Earthwork in excavation for site grading(Lowering and levelling other tha foundations) by mechanical means upto 1.50m at site as per site grading drawing in all classes of soil including slope cutting as per standard specification and carting selected excavated stuff for filling in low lying areas upto a lead of 1500m. as directed by engineer. (No manual excavation is permitted. Rate shall include cost of equipment involved) etc complete as per the direction of engineer incharge	Cum	100.00		
	1.03	Earth work Excavation in all types of soil including Ordinary soil,Hard Soil, disintegrated/ weathered/ soft rock (Poclainable) ,Hard Rock for Foundations,trenches, Footings of columns, Retaining walls, Core walls, catch pits, Lift pits, trenches for drains, and sump etc., by mechanical means including manual excavation for leveling, dressing the edges, with all leads and lifts. Dewatering of both ground and surface water, removal of slurry generated while excavation and keeping the area free of water with necessary shoring, struting, required for keeping earth in position etc, Rate to include disposing the excess earth and spreading in layers to the required levels within the site wherever specified and carting away out side the site to the designated areas upto lead of 1500m as directed by the Engineer . Note:PCC area shall be considered for measurement (Working space & provision of slopes if required for execution shall not be paid separately).Recommendations mentioned in the Geo technocal investigation will have to be fulfilled. etc complete as per the direction of engineer incharge				
3	a	Specification and scope of work same as item no (1.03) but for Hard Soil depth 0.00M to 1.50M	Cum	75.00		
4	b	Specification and scope of work same as item no (1.03)but for soft and decomposed rock Depth upto 1.50Mto 3.00M (No manual excavation is permitted. Rate shall include cost of equipment involved)	Cum	125.00		
5	c	Specification and scope of work same as item no (1.03)but for Hard rock Depth upto 3.00Mto 6.00M (No manual excavation is permitted. Rate shall include cost of equipment involved)	Cum	50.00		
6	1.04	Supply and filling in foundations and the area wherever specified with selected excavated good quality earth filling materials in plinths, area development etc. wherever specified in layers of not exceeding 150 mm thick including breaking clods,storing,transportation ,double handling, watering, compacting each layer with vibratory compactor and at unaccessible places with wooden/steel rammers to achieve 90 to 95% proctor density at optimum moisture content, all leads and lifts, bailing/ pumping out of water to keep site dry while backfilling; cost shall include conveyance of all materials, labour, machinery etc. complete as directed. The rate to includes loading, unloading, hire and fuel charges for tools and plants and other incidental charges with lead upto 100M and lift upto 3.0m etc., complete. (for Foundation & Sides of Retaining walls) (Only compacted volume shall be measured for payment).	Cum	225.00		



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7	1.05	Backfilling around foundations, trenches, sumps, pits, retaining walls, substructures, including watering and thorough compaction of backfill in layers not exceeding 230 mm thickness, at all depths with murum brought from borrow area outside the Owner's premises including its supply and transport (available within 5000 m from the work area) etc. complete. (Note: Borrow areas selected by CONTRACTOR shall be got approved from Engineer before starting work.) (Only compacted volume shall be measured for payment).	Cum	205.00		
8	1.06	Transportation by mechanical transport, surplus excavated earth / rock /debris including the hire charge for lorry, charges for loading and unloading, clearing and leveling at both ends for a lead up to 1.50 KM within the campus as directed etc complete as per the direction of engineer incharge	Cum	150.00		
9	1.07	Transportation by mechanical transport, surplus excavated earth / rock /debris including the hire charge for lorry, charges for loading and unloading, clearing and leveling at both ends for a lead up to 3.0 KM within the campus as directed etc complete as per the direction of engineer incharge	Cum	150.00		
10	1.08	Diluting and injecting chemical emulsion Chlorpyriphos Emulsifiable concentrate 20% with 15 concentration for PRE-CONSTRUCTIONAL ANTI-Termite treatment and creating a continuous chemical barrier under and around column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external surface of plinth filling, expansion joints, over top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits etc.complete as per specifications (plinth area of building at ground floor only shall be measured for payment)	sqm	205.00		
	2	CONCRETE				
11	2.01	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, . of machinery, curing complete as per specifications. etc complete as per the direction of engineer incharge	Cum	59.00		
12	2.02	Providing and laying plain cement concrete mix 1:4:8 with 20 mm down graded coarse aggregate and sand in blinding layer / fill under R.C.C. & masonry foundations, bottom of pits, sumps, channels, tie beams, grade slabs, floorings, footings, tanks, storm water drain, pipe encasing including ramming , leveling, curing etc complete as per the direction of engineer incharge	Cum	24.00		
13	2.03	Providing and laying plain cement concrete mix 1:3:6 with 20 mm down graded coarse aggregate and sand in blinding layer/fill under R.C.C. & masonry foundations, bottom of pits, sumps, channels, tie beams, grade slabs, floorings, footings, tanks, storm water drain, pipe encasing including ramming , leveling, curing etc complete as per the direction of engineer incharge	Cum	18.00		
14	2.04	Providing and laying plain cement concrete mix 1:2:4 with 20 mm down graded coarse aggregate and sand in blinding layer / fill under R.C.C. & masonry foundations, bottom of pits, sumps, channels, tie beams, grade slabs, floorings, footings, tanks, storm water drain, pipe encasing including ramming , leveling, curing etc complete as per the direction of engineer incharge	Cum	3.00		
15	2.05	Providing and laying 10cm thk R.C.C 1:2:4 bellow IPS flooring with 20 mm down graded coarse aggregate and sand in blinding layer / fill under R.C.C. & masonry foundations, bottom of pits, sumps, channels, tie beams, grade slabs, floorings, footings, tanks, storm water drain, pipe encasing including ramming , leveling, curing etc complete as per the direction of engineer incharge	Cum	23.00		
	2.06	READY MIX CONCRETE / CONTROLLED CONCRETE				
		READY MIX CONCRETE PROCURED FROM RMC PLANT THE PROBABLE CONCRETE CAN BE FETCHED FROM (Birla/ L&T/ RMC).				



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
		Providing, batching, mixing, transporting through transit mixers, pumping and laying Reinforced Cement Concrete of specified grade at all levels and heights specified below using ordinary Portland cement of grade 53 from approved manufacturer, river sand, 20mm and down size coarse aggregates, necessary admixtures approved by Consultants (Conplast SP 430SRV from Fosroc or equivalent), including all leads and lifts, pumping using line pump or boom placer, vibrating/ compaction, scaffolding wherever necessary, curing as directed, excluding cost of shuttering and centering. etc complete as per the direction of engineer incharge				
16	a	M25 Grade Concrete for Columns - Ground Floor 0-3.50M	Cum	18.00		
17	b	Above Terrace 3.5M - 7.0M	Cum	2.00		
18	c	M25 Grade Concrete for Walls-Ground Floor 0-3.50M	Cum	31.00		
19	d	Parapet wall 3.50-6.0M	Cum	16.00		
20	e	M25 Grade Concrete for Slabs - First Floor Upto 3.50M	Cum	31.00		
21	f	Above Terrace Floor/sloped roof entrance Upto 6.00M	Cum	6.00		
22	g	M25 Grade Concrete for Beams-Plinth beam	Cum	20.00		
23	h	First Floor Upto 3.50M	Cum	15.00		
24	i	Above Terrace Floor 3.50 to 6.0M	Cum	2.00		
25	j	M25 Grade Concrete for-Raft / Isolated /Combined Footing	Cum	55.00		
26	k	Staircase at all floors & heights	Cum	4.00		
27	l	Lintels at all floors	Cum	12.00		
28	m	Cills at all floors	Cum	1.00		
29	n	Chejjas	Cum	2.00		
		FORM WORK				
	3	Providing, fabricating and erecting form work at all levels and places and profiles wherever needed/specified as per drawing including striking with 12mm Plastic coated, marine resistant waterproof ply/Smooth finished MS plates with adjustable steel props of acceptable Staging system and with sufficient bracing as approved by consultant. Cost to include designing of proper form work and staging system to suit the requirements, Submission of design calculations and shop drawings for approval, sealing the joints with heavy duty brown self adhesive tape, aligning to line and levels including M.S. Ties, PVC Spacer, Providing openings/ cutouts/ pockets, applying deshuttering chemical, Deshuttering as approved by the consultant etc., complete at all levels, double/triple heights and profiles for Note : Only plan area shall be considered. No extra shall be paid for Side shuttering of Drop panel/column capitals. etc complete as per the direction of engineer incharge				
		1) plywood shuttering shall be considered for all vertical elements, beam soffit, corewalls, stairs, ramps, tanks, RCC pedestals etc., 2) M.S. plates shall be considered for foundation, slabs only.				
30	a	Footings	Sqm	96.00		
31	b	Columns 0-3.50M	Sqm	220.00		
32	c	Columns 3.50 to 7.00 M	Sqm	70.00		
33	d	Walls 0 to 3.50M	Sqm	310.00		
34	e	Parapet wall 3.50-6.0M	Sqm	32.00		
35	f	Slab Upto 3.50M	Sqm	200.00		
36	g	Slab Upto 7.00M	Sqm	25.00		
37	h	Sloped slab upto 3.50M	Sqm	11.00		
38	i	Sloped slab upto 3.50 - 7.0M	Sqm	11.00		
39	j	Beams upto 3.50M	Sqm	150.00		
40	k	Beams upto 3.50 to 7.0M	Sqm	25.00		
41	l	Staircase at all floors up to 3.50M heights.	Sqm	30.00		
42	m	Lintels at 0-3.50M	Sqm	25.00		
43	n	Lintels at 3.50 to 7.0M	Sqm	5.00		
44	o	Arch Lintel 0-3.50M	Sqm	35.00		
45	p	Sills	Sqm	20.00		
46	q	Chejjas	Sqm	20.00		
47	r	Plinth Beams	Sqm	120.00		
	4	STEEL				



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
48	4.01	<p>Fabricating & fixing in position reinforcement for RCC work with high yield strength ribbed cold twisted tor steel (HSD) bar of various diameters and grade of steel as specified below conforming to IS specification including cutting, providing, supplying & bending, hoisting, fabricating and placing in position according to drawings and binding the reinforcement with galvanised annealed binding wire of double fold of 18 gauge and providing PVC cover blocks for placing the reinforcements in position and for maintaining the cover specified and/or according to relevant IS.</p> <p>Note : Unless noted otherwise the measurements in accordance with IS 1200. However reinforcement shall be measured only in lengths of bars as actually placed in position on standard weight basis, no allowance being made in the weight for rolling margin. Authorized laps and splices only will be measured. Chairs of any shape & profile, Spacer bar of any shape & profile, cover block, wastage and binding wire will not be measured and shall be included in the quoted rates. Quoted rate shall be deemed to have considered the above stipulation. Quoted rate to include lead, lift, placing at all levels and as directed. Note: No variation in rates will be paid to contractor at any point of time. etc complete as per the direction of engineer incharge</p> <p>Fe 500</p>	MT	21.00		
5		WATERPROOFING WORKS				
		FOR TERRACES				
49	5.01	<p>Providing and laying integral cement based waterproofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc., consisting of following application. (A) Applying and grouting a slurry coat of neat cement using 2.75 kg/m² of cement admixed with proprietary water proofing compound conforming to IS:2645 over the RCC slab after cleaning the surface before treatment.(b) Laying cement concrete using broken brick bats 25mm to 100mm size 50% of cement mortar 1:5 admixed with proprietary water proofing compound confirming IS 2645 Over 20mm thick layer of CM mortar 1:5 admixture with proprietary water proofing compound to required slope and treating similarly the adjoining walls upto 300mm height including rounding off junctions of wall and slabs c) After two days of proper curing, apply a second coat of cement slurry admixed with proprietary water proofing compound d)finishing the surface with 20mm thick jointless cement mortar of mix 1:4 admixed with proprietary water proofing compound and finally finishing the surface trowel and neat cement slurry and making of 300x300mm square e)the whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and final test including costv of material,labour complete as per specifications etc., complete along with Contractor/manufacturers guarantee of 10 years' etc complete as per the direction of engineer incharge</p>	Sqm	200.00		
50	5.02	<p>Providing and sealing applying High Performance Elastomeric Cementitious water proof coating "Brushbond-RFX" in two coats to a thickness of 1mm, over the cleaned Sunken Toilets, water tank bottom top after cleaning and removing the dust using help of a propeller agitator attached to a slow speed drill around 500 RPM and mixed from 2-4 minutes, and applying on the cleaned Sunken Toilets,after pre wetting before applying to get best results, applying, curing for a week, etc complete as per the direction of engineer incharge</p>	sqm	20.00		
6		MASONRY WORKS				
51	6.01	<p>Providing and constructing Size stone masonry in foundation, walls, drain, retaining walls, compound walls, pillars etc., using sized stones in CM 1:6 (1 cement: 6 coarse sand) with necessary quoin, through bond stone and header stone at regular intervals including dressing the stone and edge pointing by chisel / hammer true to the required shape and size, curing, racking out joints, leads and lifts etc. at all levels and locations specified.</p>	Cum	185.00		
52	6.02	<p>Providing ruled pointing to coursed stone masonry with cement mortar 1:4, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.</p>	Sqm	150.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
53	6.03	Providing and constructing non load bearing wall with Solid Cement Concrete Blocks confirming to IS:2185 (part-1) 1984 and IS 6441-1972 of compressive strength of 3.0N/sq mm with a thin layer of polymer based jointing solvent for super structure set in sand cement mortar 1:5 with necessary scaffolding, curing including cost of all materials, labour, lead& lift etc, complete as per specifications. - with 600x200x200mm size Blocks etc complete as per the direction of engineer incharge	Sqm	512.00		
54	6.04	For First Floor staircase head room	Sqm	65.00		
55	6.05	Providing and constructing non load bearing wall with Solid Cement Concrete Blocks confirming to IS:2185 (part-1) 1984 and IS 6441-1972 of compressive strength of 3.0N/sq mm with a thin layer of polymer based jointing solvent for super structure set in sand cement mortar 1:5 with necessary scaffolding, curing including cost of all materials, labour, lead& lift etc, complete as per specifications. - with 600x200x100mm size Blocks etc complete as per the direction of engineer incharge	Sqm	35.00		
	7	PLASTERING WORKS				
56	7.01	Providing 15 mm thick Internal cement plaster in a single coat with cement mortar 1:6 to wall including chipping / hacking the concrete surface rounding off corners wherever required smooth rendering, providing & removing scaffolding, including cost of materials, labours, curing complete as per complete all as per drawings including addition of water proofing compound and as directed by Engineer-in-Charge (Waterproofing compound of approved make to be used as per manufacturer's specifications).	Sqm	605.00		
57	7.02	Providing 12 mm thick cement plaster in cement mortar 1:4 for the Ceiling surfaces including chipping / hacking the concrete surface including providing, bands, drip moulds, grooves etc. finishing, curing, scaffolding etc. complete all as per drawings including addition of water proofing compound and as directed by Engineer-in-Charge (Waterproofing compound of approved make to be used as per manufacturer's specifications). etc complete as per the direction of engineer incharge	Sqm	210.00		
58	7.03	Providing 18 mm thick exterior sand faced Cement Plaster in two layers with first base coat of 14mm thick in cement plaster 1:4 (1 cement :4 coarse sand) and second finishing coat of 6mm thick in cement plaster 1:3 (1 cement : 3 fine sand) for all external surfaces including chipping/ hacking of concrete surface or brick masonry wall,etc. finishing, curing, scaffolding, waterproofing compound Conplast X4211C (FOSROC) 200 ml per bag of cement or equivalent, etc complete as per the direction of engineer incharge	Sqm	865.00		
59	7.04	Providing and fixing plaster mesh 150mm wide manufactured out of hot dipped galvanised iron of nominal thickness 0.35mm with a zinc coating of 120gms per sqm width, along route of walls chipped for services, junction between RCC and brick walls including cost of materials, labour for fixing complete as per specifications. (length of mesh only be measured for payment) etc complete as per the direction of engineer incharge	Rmt	550.00		
60	7.05	Providing and fixing plaster mesh 100mm wide manufactured out of hot dipped galvanised iron of nominal thickness 0.35mm with a zinc coating of 120gms per sqm width, along route of walls chipped for services, junction between RCC and brick walls including cost of materials, labour for fixing complete as per specifications. (length of mesh only be measured for payment) etc complete as per the direction of engineer incharge	Rmt	500.00		
61	7.06	Providing rough cement plastering 15mm thick in single coat with cement mortar 1:4, to block masonry for base of dadoing works with sand of approved quality, providing and removing scaffolding, including cost of materials, labour, curing complete as per direction of engineer incharge.	Sqm	60.00		
	8	PAINTING				



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
62	8.01	Providing applying two coats of wall putty (Birall/JK Putty) to inside plastered walls and ceiling using white cement putty. Scraping and levelling the surface using steel blade prepareig the surface even ad smooth by using different grade sand papers including cost aof all aterials , cost of labours and wcaffolding etc., commplete as per the specification etc complete as per the direction of engineer incharge	Sqm	815.00		
63	8.02	Providing and applying painting in two coats with plastic emulsion paint of approved brand on internal surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer. etc complete as per the direction of engineer incharge	Sqm	815.00		
64	8.03	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. etc complete as per the direction of engineer incharge	Sqm	865.00		
65	8.04	Providing for applying two coats of enamel paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, sand papering including cost of materials, over applying two coats of priming over new wood surface, after brushing with ready mix enamel priming paint including preparing the surface after thoroughly cleaning oil, grease, dirt and foreign matter, sand papering and knotting ready mix paint including cost of materials, labour, complete as per instruction of Engineer Incharge.	Sqm	40.00		
66	8.05	Providing and applying enamel paint two coats (Including 2 coats of red oxide primer coat) over new steel or other metal surface brushing to give an even shade after cleaning oil,grease,dirt and other foreign matter,including cost of materials, labour, complete as per specifications Entrance lobby, grill gate (Windows grills and structural steel items) etc complete as per the direction of engineer incharge	Sqm	85.00		
	9	DOORS AND WINDOWS				
67	9.01	Providing & fixing of glazed Openable/ Sliding two track Window/made out of multi chambered uPVC sections with TPV gaskets having isolated drainage and reinforced with Galvanixed iron profiles throuhout the window. The outer frame having a overall size of 60x55 mm with reinforcement of 1 mm thickness, mullion with overall size of 74x60 mm with reinforcement of 1 mm and sash with overall size of 75x60 mm with reinforcement of 1.5 mm thickness. Glazing bead for fixing of glass shall be of size 34x20 mm and coextruded with gasket. Windows shall be provided with 5mm plain float glass, standard hardware & single point locking system of flush lock, Wall thickness of frame, mullion & sash shall be 2-2.2 mm. etc complete as per the direction of engineer incharge	Sqm	12.00		
68	9.02	Providing & fixing of Top hung Ventilator With Exhaust Fan Provision made out of multi chambered uPVC sections with TPV gaskets having isolated drainage and reinforced with Galvanized Iron profiles through out the Windown. the outer frame having a overall size of 60x55 mm with reinforcement of 1 mm thickness, Mullion with overall size of 74x60 mm with reinforcement of 1 mm thickness and Sash with overall size of 75x60 mm with reinforcement of 1.5mm thickness. Glazing bead for fixing of glass shall be of size 34x20 mml coextruded with gasket, Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware, single point locking and friction stays,. Wall thickness of frame, mullion & sash shall be 2-2.2 mm. complete as directed by Engineer.	Sqm	3.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
69	9.03	Fabrication and supply and fixing of MILD STEEL DOORS 50% open grill and 50% covered with MS Sheet of the following Size with Double Leaf outer frame made of 35x35x5 mm equal M.S.L angle and shutter frame made of 25x25x5mm equal M.S L angle for Horizontal and Vertical members and the shutter frame strengthened by stiffeners of 2 Nos horizontal,3 Nos. diagonal for each shutter using MS flat of size 20x5mm half bottom portion covered with 18 gauge plain M.S full sheet welded with shutter frame neatly and 50% of portion covered with Grill using 16mm square Bright bars fixed/welded both horizontally and vertically at 125mm c/c distance. and also fixing by welding 6 Nos. of hold fasts, 2 Nos. of wind appliances, 3 Nos. of tower bolts,1 No aldop, 3 Nos.of handles fixing the shutter with 6 Nos. of hinges with outer frame of the door.The rates including 2 coats of red oxide primer and 2 coats of enamel paint as directed by Engineer.	Sqm	6.35		
70	9.04	Providing and fixing M S grill work for windows and ventilaatoors weighting 18 kg /sq mt using M S flats or M S square rods or combinations of M s flat and square rods as per approved design drawing including cutting steel sections and welding the same to required pattern with two coats of red lead primer and Two coats of metallic paint. The rate includes cost of materials fixtures labours and complete as directed by Engineer.	Sqm	30.00		
71	9.05	Providing and fixing 12.5mm to 25 mm expanded metal work of 14 gauge on MS grill, including two coats approved paint etc., complete. (Including cost of screws). with weld mesh 75 mm X 25 mm 6G X 10G.	Sqm	12.00		
72	9.06	Providing and fixing door frames Matti/Nandi wood frames of size (75x125mm) doors,windows,clerestory windows, ventilators and other frames wrought, framed or assembled including making plaster grooves (Including cost of cement concrete and side clamps) but including cost of materials, labour, complete as as directed by Engineer.	Cum	1.00		
73	9.06	Providing and fixing factory made splendor of solid core single leaf rigid composite polymer laminated Flush door shuttes of required thickness, manufactured out of solid core door confirming to IS 2202 (part -1)1991, laminated with 0.8 mm thick polymer, termite,water resitant and with various premoulded design on both faces confirming to IS 6307-19585, using adhesive confirming to IS 4835-1979 and door shutters tested in confirmation to IS 4020-1994.The finish of shutters will be TEADK /OAK/ CEDER/ ROSE WOOD /WALNUT plain colours WHITE /IVORY/ BEIGE/ LIGHT GREY Excluding cost of fixtures and inclusive of supply of shutters to respective work spot 35 mm thick door shutters as directed by Engineer.	Sqm	21.00		
10		IPS Flooring				



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
74	10.01	Providing and laying 50mm thk Indian Patent Stone Floor in Concrete (1:2:4) with water cement ratio of 0.5 shall be laid in bays of suitable sizes but not exceeding 4 sq.m. each, and to required slope in a chess board alternate panel fashion and neatly finished smooth in red colour with lines drawn as directed. Concrete shall be laid in two layers. Bottom layer shall be 30 mm thick with 10 mm to 6mm graded stone aggregates and shall be finished rough. Top layer shall be 20 mm thick with 6 mm and down size aggregates. This layer shall be thoroughly tamped,spread, trowelled and finished smooth with a floating coat of neat cement. The concrete shall be coast against teakwood stop-off boards, which shall be removed only after the concrete is set. No dry cement shall be allowed to be used for finishing thsurface. Mechanical mixing of concrete may be resorted to.down size, clean, crushed, well graded, cubical shape, sharp edged aggregates of hard, durable & approved quality stones / rubbles including machine mixing, transporting, laying, spreading, compaction, laying in proper line; slope or level [as directed] etc. using 4/6 mm thk glass / aluminium dividing strips for flooring & ramps etc., ramming, finishing smooth, preparation of base by racking out all masonry joints, close hacking the old / new concrete surfaces for proper bonding, cleaning & washing the base with clean water for removal of oil, grease, dust; dirt, algae; fungus; dead / waste mortar or concrete debris & unwanted matters / things before laying flooring [base shall be fully neat, clean & slightly wet before laying flooring The surface shall be keptwell watered after it is dry for a period of 8 days. Where specified a floor hardner (ironite powder) etc complete as per the direction of engineer incharge	Sqm	270.00		
75	10.02	Providing and fixing Anti Skid ceramic tiles of approved make,shade and size for toilet flooring laid on a bed of 12 thick, cement mortar 1:3 mix,Flush pointing with white cement using colour pigment,including cost of materials,labour,curing, etc of approved colour and size(30cmsX30cms) complete as per direction of Enineer Incharge. Note: Basic Rate Rs.500/Sqm excluding transportation,tax,loading and unloading etc complete as per the direction of engineer incharge	Sqm	16.00		
76	10.03	Providing and fixing for dado Glazed ceramic tiles for wall with colour glazed tiles 6mm -10mm thick of approved size and pattern on 18 mm thick rough cement plaster 1:3 and jointed with white cement slurry over rough plaster surface (excluding cost of rough plaastered which should be measured and paid separately) using glazed tiles of approved make and size including cost of materials, labour, complete complete as per direction of Enineer Incharge.Basic Rate Rs.600/Sqm excluding transportation,tax,loading and unloading etc. as per the direction of engineer incharge	Sqm	57.00		
77	10.04	Providing and fixing M.S. Hand railing for Staicase abd balcony with 50mm dia. M.S. hollow pipe of 14 gauge, welded to 20mmx20mm M.S. square rod placed vertically, spaced at 150mm at regular intervals of 600mm. These vertical rods laterally tied to 3 horizontal rods of 25 x25mm sq.tubes spaced at equal interval. These assembly is fixed to concrete by using expansion bolts and welding the same to reinforcement bars and making good the surface. All the joints and sections hould be cut to length, welded and grinded wherever necessary etc., complete . The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, and also includes 2 coats of primer and 2 coats of metallic paint etc., complete as per the direction of Engineer incharge.	Sqm	39.00		
78	10.05	Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and . of machineries complete as per specifications. etc complete as per the direction of engineer incharge	Sqm	20.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
79	10.06	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete (of size of 450 x 150 x 500 mm) etc complete as per the direction of engineer incharge	Rmt	50.00		
	11	MISSCILEANEOUS WORKS				
80	11.01	Providing and placing on terrace, polyethylene water storage tanks of 500 litre capacity with manhole lid and suitable locking arrangements, making holes of suitable diameter for inlet, outlet and over flow pipes, including cost of all materials, labour, transport charges, . of equipments and testing complete as per specifications. etc complete as per the direction of engineer incharge	nos	2.00		
81	11.02	Design ,supply ,fabricate, transport to site and install in position manually operated sliding gates complete using corrugated MS sheet of .60mm thk sheet on both sides welded to angles frame with .25mm dia pulley, 40x40x6 mm angles and T iron guide rail top and bottom respectively with handles, stoppers and locking arrangements etc and arrangement for manual arrangement as per standard supply including all necessary fixtures. Rate shall include for all inserts and embedments for smooth operation of gate.The rate shall also include 2 coats of approved primer & 3 coats of Synthetic enamel paint of approved make and shade. etc complete as per drawing and direction of engineer incharge.	kg	320.00		
82	11.03	Providing lath plaster(Padadi) 75mmthk with cement mortar 1:3, 5cms thick with 6mm dia mild steel bars at 20 cms. c to c both horizontally and vertically fixing chicken mesh for drop chajja, facia, backing to cup boards including cost of all materials, labour, providing and removing form work . of machineries, curing, complete as per the direction of engineer incharge	Sqm	20.00		
83	11.04	Providing /Supply of Sand bags of 50kg weight filled and packed in closed gunni bags etc complete as per the direction of engineer incharge	nos	50.00		
84	11.05	Providing and laying to required line and slope roofing with corrugated Asbestos Cement Sheet 6mm. thick fixed with galvanised iron J or L hooks, bolts and nuts 8mm. dia C.I plain and bitumen washers over the 30mmx50mmx5mm M.S.angle purlins, rafters 50mmx50mmx5mm and m.s box of size 30mmx60mm x5mm trusses including cost of materials, labour, necessary welding etc complete as per the direction of engineer incharge.	sqm	40.00		
85	11.06	Providing and fixing G.I. Barbed Wire Fencing 1.8 Metre High:- Providing and fixing 1.8 metres high GI barbed wire fencing with 2.4 m angle iron posts 50 mm x 50 mm x 6 mm placed every 3 metres center to center founded in M-15 grade cement concrete, 0.6 metre above ground level, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 12 horizontal lines and 2 diagonals interwoven with horizontal wires, fixed with GI staples, turn buckles, top 300mm dia coil of barbed coils should be fixed etc complete as per the direction of engineer incharge.	Rmt	130.00		
86	11.07	Providing and fixing fan hooks (concealed type) of 16mm dia MS bars at specified locations including placing in position, aligning during concreting, exposing of hook after concreting, etc. complete.	nos	6.00		
87	11.08	Providing chain link fencing 50mm size of 8 gauge properly stretched between rectangular poles and fixed with suitable bolts and nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including coat of all materials, labour, lead and lifts, cutting, bending wherever necessary, wastage and lapping etc., complete as per the direction of the engineer incharge for work including two coats of approved quality paint over one coat of primer paint. complete in all respects as per the direction of engineer incharge	Rmt	130.00		
88	11.09	Providing and fixing flag post having 5.00m long white painted 150-125mm dia M.S. steel pipe of 6mm thk fixed/inserted in RCC 1:2:4 pedestal of size 1.5mx1.5m x1.5m etc complete as per the instuction of engineer in charge	no	1.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
89	11.1	Providing and fixing wire Screen made up of 12mm mesh in 1.6mm steel wire with necessary framing in MS angle 25x25x5mm and fixing assembly as directed by engineer and at all height etc. complete. Samples shall be approved prior to supply of material. etc complete as per the instruction of engineer in charge	sqm	25.00		
	12	Plumbing and Sanitary works				
90	12.01	Providing and fixing White Vitreous China Clay, White Closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C.P brass hinges, rubbers. 10 litre low level, P.V.C flushing cistern (all are approved make) with fittings, C.I / M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow approved design, painting of fittings and brackets, cutting and making labour complete as per specifications	No's	1.00		
91	12.02	Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm S or P trap, 10 litre low level, P.V.C flushing cistern (all are approved make) with fittings, C.I / M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications	No's	1.00		
92	12.03	Providing and fixing White Vitreous China Clay, flat back, lipped front urinal basin of 430X260X350mm with C.I / M.S brackets, standard flush pipe and C.P brass spreaders with brass unions and G.I clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of material, labour complete as per specifications	No's	2.00		
93	12.04	Providing and fixing white vitreous china clay, flat back wash basin size 550X400mm with a single 15mm C.P brass pillar tap with C.I / M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, uncluding cost of materials, labour complete as per specifications.	No's	1.00		
94	12.05	Providing and fixing 900X600mm beverLead edge mirror of superior glass with 6mm hard board backing and fixed to wooden cleats with C.P screws, washers, including cost of materials, labour complete as per specifications.	No's	1.00		
95	12.06	Providing and fixing Ci Nahani Trap/floor trap of approved make conforming to ISI specifications and construction of cistern of M-15 as per directions (Rate in=s inclusive of cost of materials and fixtures and conveyance of materials to work spot).	No's	6.00		
96	12.07	Earth work excavation for foundation of buildings, culverts, water supply , sanitary lines and electrical conduits either in pits or in trenches 1.5 m and above in width, in ordinary soil not exceeding 1.50 in depth including dressing the bottom and sides of the pits and trenches, stacking the excavated soil clear from the edges of excavation, after breaking of clodes complete as per specifications with all lead and lift,etc., Complete as per directions of the Engineer-in-charge	CUM	50.00		
97	12.08	Constructing brick masonry inspection chamber 600X600mm, and 600mm depth, (clear inside dimension) for single pipeline, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5. C.I cover with frame (light duty) 600X600mm internal dimensions, total weight of cover with frame to be not less than 38 kg { weight of cover 23kg and weight of frame 15kg} R.C.C. top slab with cement concrete 1:2:4 mix 20mm and downsize granite metal, foundation concrete 1:5:10 with 40mm and downsize granite metal inside plastering 12mm think with cement mortar 1:3, finish smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications etc., complete as per directions of the Engineer-in-charge	No's	4.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
98	12.09	Providing Heavy duty M.S inspection cover with frame of approved first quality and confirming to ISI.Specification 600x600 size weighing 50kgs and fixing in cement concrete 1:2:4 including curing (rates includes cost of all materials and conveyance to work spot.) MR (60cmsX60cms size) for sump tank and septic tank with locking arrangements with two coats of enamel paint with primer coat.	nos	4.00		
99	12.1	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom,0.91m deep and 0.56m dia at top with table moulded non-modular bricks of 50 class designation 50 in cement mortar 1:4, inside cement plastered 12mm thick with cement mortar 1:3, finished with a floating coat of neat cement, foundation concrete M 10 using 40mm and downsize granite metal and making necessary channel in cement concrete M 50 with 20mm and downsize granite metal finished with a floating coat of neat cement, with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diametre confirming IS :12592, total weight cover and frame to be not less than 182 kg, fixed in cement concrete 1:2:4, 20mm and downsize broken granite metal, providing and removing centering, shuttering including cost of materials, labour charges, complete as per specifications. (Excavation, footrests and 12mm thick cement plaster on the external surface shall be paid seperately)	nos	1.00		
100	12.11	Earth excavation for , water supply , sanitary lines either in pits or in trenches 1.5 m and above in width, in ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation, after breaking of clodes complete as per specifications with all lead and lift, etc.,	Cum.	40.00		
101	12.12	Filling available excavated earth (excluding rock) in sides of foundation upto plinth in layers not exceeding 20cms, in depth, compacting each despited layer of ramming after watering with all lead and lift, including cost of all labour etc., complete as per specifications and directions of the Engineer-in-charge	cum	70.00		
102	12.13	Providing stoneware gully trap of size 15cmsX10cms of approved quality and make conforming to ISI Specifications and fixing in CC 1:2:4 and plastering with C.M. 1:3 wherever necessary (Rates includes cost of all materials fixtures and lead).	Each	4.00		
103	12.14	Providing and laying in position to required level or slope 150mm internal diameter salt glazed stoneware pipes grade A and jointing with stiff mixture of cement mortar in proportion of 1:1, testing of pipes and joints,including cost of materials, labour charges complete as per specifications.	Rmt	90.00		
104	12.15	Providing and fixing in position soap holder as per design with all lead and lift etc., complete as directed by the Engineer-in-charge	nos	1.00		
105	12.16	Providing and fixing C.P brass towel rail 740mm length, 20mm dia with C.P brackets fixed to wooden cleats with C.P brass screws including cost of materials, labour complete as per specifications etc., complete	nos	1.00		
	12.17	Providing and fixing to wall, ceiling and floor medium density polyurethane pipes 6kgs/sqm working pressure 20mm outside diameter with special flange compression type fittings wall clips making good the wall ceiling and floor including cost of all material labour charges of all equipments and testing complete as per specifications				
106	a	- 15mmdia	Rmtr	55.00		
107	b	20 m dia	Rmtr	40.00		
108	c	- 25mmdia	Rmtr	35.00		
109	d	- 32mmdia	Rmtr	20.00		
110	12.18	Making connection of G.I distribution branch with G.I.main of 25 to 32mm.nominal bore,including cutting & all item of works,testing etc.complete	Nos	4.00		
111	12.19	G.I main of 32 to 50mm.	Nos	4.00		
112	12.2	Providing & vixing water meter with stop cock, jam nut socket in G.I pipe line including cutting & threading the pipe & making long screws including cost of all materials, labour,. of equipments & testing complete as per specifications.	Set	1.00		
113	12.21	Providing & fixing in position CP brass concealed angled stop cock of approved quality. 20mm nominal bore including cost of all materials, labour & . of equipments with all leads complete	set	4.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
114	12.22	Providing and fixing health faucet with flexible pipe of approved make & model to EWC with necessary connection & fittings labour complete as per specifications. complete .	set	2.00		
115	12.23	Providing and fixing in position brass bib cock of approved quality 15 mm dia nominal bore including cost of materials, labour and . of equivalent with all leads complete as per specifications	Each	6.00		
116	12.24	Providing & fixing in position brass stop cock of approved quality. 15mm nominal bore including cost of all materials,labour & . of equipments with all leads complete as per specifications	Each	4.00		
	12.25	Providing and fixing in position brass gate valves with CI wheel of approved quality (Screwed end) of following nominal bore including cost of materials, labour and . of equivalent with all leads complete as per specifications.				
117	a	25mmdia	Each	2.00		
118	b	32mmdia	Each	2.00		
119	c	40mmdia	Each	2.00		
120	12.26	Providing & fixing in position brass ball valve high or low pressure with plastic float of approved quality 15mm nominal bore including cost of all materials,labour & . of equipments with all leads complete as per specifications	Each	2.00		
121	12.27	Making wall bores, for soil/waste pipes including redoing it with C.M. 1:4 for stone masonry wall, upto 0.45 width with all lead and lift etc., complete as directed by the Engineer-in-charge.	Each	4.00		
122	12.28	Making wall bores, for soil/water pipes including redoing with brick in C.M. 1:4 for brick masonry (walls upto 0.45 M) with all lead and lift etc., complete as directed by the Engineer-in-charge.	Each	5.00		
123	12.29	Terrace boreor chajja bore or redoing the same as per specifications, including necessary scaffolding with all lead and lift etc., complete as directed by the Engineer-in-charge.	Each	2.00		
124	12.3	Manhole bore and redoing with C.C. 1:2:4 and C.M. 1:3 plastering with all lead and lift etc., complete as directed by the Engineer-in-charge.	Each	2.00		
125	12.31	Embedding GI pipe of 15 mm to 25 mm dia by cutting grooves, including fixing clamps and redoing in C.M. 1:3 under ground with all lead and lift etc., complete as directed by the Engineer-in-charge.	Rmt	50.00		
126	12.32	Providing and fixing on wall surface 2.5kg / sq.cm H.D.P.E. rain down water pipes 110mm outer dia approved make and brand with necessary specials like shoes, bends and offsets fixed with iron clamps, wall plugs, screws, including cost of materials, labour, curing complete as per the direction of engineer incharge.	Rmt	25.00		
	13	FIRE FIGHTING SYSTEM				
127	13.01	FIRE ALARAM MAIN PANEL PWD SR 40.99.2 Supplying and intstallation of testng and commissioning of micro precess base Fire alaram control panel having power regulation circuit wchich corner to 230 AC to @ SVDC indicating Fire Fault isolation with feather touch push button switches test facility also with work test facility arrangements provided in panel. All this electronic circuits components are assembled in MS 16 gauge suitable panel cabinet with glass fraonted and locking arrangements including cost of all materials etc complete.Group - A Materials	each	1.00		
128	13.02	Smoke Detector: Fully supervised smoke detector ,photoelectric detection technology for superior detection sensitivity sound and transmitted allerts for smoke tamper and low battery works on powercode protocall easy programming and enrolling to the control panel long life 9 volt alkaline or lithium battery simple ceiling mount installation with seperate installation bracket complete....ISD ITNO 40.59 PNO 355	each	2.00		
129	13.03	External wireless siren a fully supervised power code outdoor IP55 wireless siren and strobe light designed for external installation wire free connections between control panel and siren,convinient and rapid no mess installation seperate fire alarm signals, 98 db piezo siren and high power strobe light weather proof resistant IP55 two way communication for local and remote diagonstic plug in power supply NIMH rechargeable backup battery supervisor and AC loss messages to the control panel tristate tamper switch identeties screw manipulation removal of cover or EXTERNAL 40.61 355	each	1.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
130	13.04	HEAT DETECTOR Supplying and installation and testing and commissioning of Smoke/Heat detector photo electric type detector with base LED indicator on Smioke detector fixed cum rise temperature type heat detector with base make applow/system sensor complete.40.100 362	each	5.00		
131	13.05	HOOTER Supplying and installing,testing and commissioning of electronic hooter it consists of electronic circuit to give dual firealarm sound with works 24 V DC with speaker all enclosed in suitable in MS 16 gauge red painted box complete110lb	each	1.00		
132	13.06	MANUAL CALL POINT Supply installing testing and commissioning of manual call point. It consists of microw push button switch with LED and circuitary etc. works on 24VDC LED indicator with glass fronted also with hammer for breaking the glass incase of fire of fire. accomodated in 75x75x30mm size MS 16 gaug red enamel painted box make/globe/ravel/royale. complete 40.101 PNO362	each	1.00		
133	13.07	RESPONSE INDICATOR Supplying installing testing and commissioning of Response indicator consists of twin LED wioth electronic circutarx work on 24 DC enclose in PVC rectanagular . complete 40.103 PNO 362	each	1.00		
	13.08	Supply and installation of testing and commisioning of of approved make heavy quantity C Class confirming to IS confirming to as per IS 1239 such as tees elbow check nuts unions flanger,nipples etc including cutting welding trending fixing on walls cealing using 41 tech pipe /ms angle supportts work includes two coats of metal primer and two coats of red enamel paint etc.				
134	a	32mm 40.97.8	m	75.00		
135	b	25mm 40.97.9	m	75.00		
136	13.09	COPPER CONDUCTOR Supply and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to table 3 class 5 IS 8130-1984 AND VIRGIN PVC INSULLATION AND SHEATHED SUITABLE FOR WORKING VOLTAGE UPTO 1100 VOLTS AS PER is-694:1990 and confirming to GTP of GROUP -A 2CX1.50 sqmm40.112 PNO 363	m	75.00		
137	13.1	CABLE Supply and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to table 3 class 5 IS 8130-1984 AND PVC INSULLATION AND SHEATHED SUITABLE FOR WORKING VOLTAGE UPTO 1100 VOLTS AS PER is-694:1990 and confirming to GTP of GROUP -A 2CX1.50 sqmm PNO 363 40.105	m	40.00		
138	13.11	TELEPHONE COONNECTION WIRE MR	m	40.00		
139	13.12	Supplying of four buckets stand along with buckets complete 40.113 pno 363	each	2.00		
140	13.13	supply of first aid box complete 40.116	nos	2.00		
141	13.14	Supplying and installation of RUBBER MAT 1mtr x 1mtr - 10mm thick. Complete 40.119	nos	2.00		
142	13.15	Providing CO2 Aluminium - 2kg Providing 2Kg CO2 Gas aluminium body Squeeze grip Fire Extinugisher, Used Unused Mechanism, Squeeze Grip, Gross Weight 5.16 Kg. empty Weight 3.16Kg. Can Height 615MM Diameter 111MM, Discharge Time less than 8 Secs, Controllable discharge mechanism, Applicable on Class B&C Fire, B Rating 13B, Can Constuction : Cold Impact Extrusion, Valve Construction : Forging & Machining, Internal Coating of Can : Not Applicable, External coating of Can : Spray Painting, Aluminium metal ISO & PESO Approved, 3 Year Warranty. complete 40.38	nos	1.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
143	13.16	Providing CO2 Aluminium - 4.5kg Providing 4.5Kg CO2 Gas Type aluminium body Squeeze grip Fire Extinguisher, Trolley Mounted, Easy Weight Management, Used Unused Mechanism, Squeeze Grip, Gross Weight 11.16Kg. empty Weight 6.66Kg. Can Height 860MM Diameter 140MM, Discharge Time less than 10 Secs, Controllable discharge mechanism, Applicable on Class B&C Fire, B Rating 13B, Can Constuction : Cold Impact Extrusion, Valve Construction : Forging & Machining, Internal Coating of Can : Not Applicable, External coating of Can : Spray Painting, Aluminium metal ISO & PESO Approved, 3 Year Warranty. complete 40.39	nos	1.00		
144	13.17	Providing 4 Kg Fire Extinguisher Monnex powder Providing 4kg Stored Pressure Type, Pressure Gauge, Gross Weight 7.4Kg, empty weight 3.4 Kg, Can Height 480 MM, Diameter 160 MM, Discharge Time less than 13 Secs, Controllable discharge mechanism (Squeeze grip with easy snap safety seal), Range minimum 4 meters, Can construction : Deep drawn & Co., Mig welded, valve Construciton : Forging and Mechining, Internal Coating of Can: Epoxy powder coating, External Coating of Can: Epoxy Polyster power coating, Sheet metal thickness: 1.60 MM, 5 years warranty. with instalert system with Superior quality EPDM Rubber Hosepipe etc., complete 40.15	nos	1.00		
145	13.18	Providing Water - 9 Ltr - Stored Pressure Providing 9 Ltr Water type Fire Extinguisher, Stored Pressure Type, Pressur Gauge, Gross Weight 15.1kg. empty weight 6.1kg Can Height 615MM, Diameter 175 MM, Discharge Time less than 120 Secs, Controllable discharge mechanism (Squeeze grip with easy snap safety seal), Range minimum 6 Meters, applicable on Class A Fire, A Rating 3A,	nos	2.00		
	14	ELECTRICAL WORKS				
	14.01	MEDIUM VOLTAGE SWITCH BOARDSS apply, store, erection, testing and commissioning of 415 Volts, 3 Phase, 50HZ switchboards/ panels as per specification complete as required.Erection rate rate shall include base channel, grouting/grip bolts etc. Including foundation for outdoor panel PCC/RCC/ Masnory works etc. Metering Board - outdoor/Weather proof -wall mount Type 30A Fuse cut out , RYB indicator ,4P 32A MCB 3 phase 40A std Electronic-KWH connector Terminal/wiring as required for 10 KW power				
146	a	Supply	Each	1.00		
147	b	Erection	Each	1.00		
	14.02	FACTORY-BUILT MCB DISTRIBUTION BOARDS				
148	a	Supply, store, erection, testing and commissioning of MCB Distribution Boards, wall-mounted (either surfaceor recessed type). The erection rates shall include fixing of DB on wall including supply of all fixing accessories, civil works etc. space provision shall be made for mounting ELCB in the incomer MCB. The rate shall be same for any combination of outgoing.DOUBLE DOOR TYPE - With 6A to 32A C- CURVE MCBS Horizontal or Vertical type TPN DB 6-Way TPN DB with 32 amps TPN MCB incomer and 18 Nos.6A to 20A 1-Pole MCB outgoing.	Each	1.00		
149	b	MCB DB Accessories :4-pole Residual current circuit breaker (RCCB) with normal current rating of 32 A and sensitivity of 100 mA.	Each	1.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
	14.03	POWER AND CONTROL CABLES:-Supply & Laying Supply, laying & testing of 1.1KV Grade PVC insulated aluminium conductor steel armoured power cables as per IS specification. The rates quoted shall be for laying in trays, cable trenches (indoor and outdoor), pipes, etc.For buried cables the excavation work will be included under the heading civil works for outdoor cable laying.				
150	a	4 Core x 16 Sq. mm Cable (PVC)	Mtr.	130.00		
151	b	3 Core x 2.5 Sq. mm Cable (PVC) copper armoured	Mtr.	25.00		
	14.04	Civil works for outdoor Cable Laying :Preparation of outdoor cable trenches including excavation, back filling, sand filling, cable tiles, compaction etc., as per specification, of the following sizes.				
152	a	Trench of width 300mm & depth 750mm.	mtr	125.00		
153	b	Trench of width 300mm & depth 500mm.	mtr	200.00		
	14.05	Cable End Termination :Supply and providing the end terminations with copper cable lugs, single compression brass cable glands,taping, crimping, gland and armour earthing, etc. Complete as required.				
154	a	4 Core x 16 Sq. mm Cable (PVC)	Each	2.00		
155	b	3 Core x 1.5/ 2.5 Sq. mm Cable (PVC) copper armoured	Each	4.00		
	14.06	SOCKET OUTLETS				
156	a	FLAME PROOF SOCKETS : Supply, erection, testing and commissioning of factory Flame proof, Explosion type switched socket with plug top surface mounted / Recessed and double compression glands Makes : FCG/CEAG 16/25 Amps, 3-pin single phase industrial socket with plug top,	Each	5.00		
157	b	Commercial Type :Supply, erection, testing and commissioning of power points by providing following switches/sockets mounted flush on to the furniture partition wall or fixed to surface or recessed boxes with all fixing and wiring accessories.6/16 Amps, 6-pin (250Volts) single phase universal socket with 16 Amps single pole switch including recess mounted MS box. The pin configuration shall be round type.	Each	6.00		
158	c	6 Amp 3-pin (250Volts) single phase commercial socket with 5 Amp, SP switch including recess mounted MS box	Each	7.00		
159	d	25/30 Amps 3-pin socket including recessed MS switch box for Geyser /AC	Each	2.00		
160	e	25/30 Amps 2P Switch & indicator including recessed MS switch box for Geyser /AC	Each	2.00		
	14.07	SUBMAINS / CIRCUIT MAINS / POWER WIRINGSupply and running of 1100 V grade FRLS insulated copper conductor wires in 2 mm thick FRLS conduits. The rate shall include supply and installation of all materials like conduits, wires, fixing accessories, etc.,				
161	a	32 mm dia, FRLS conduit with all accessories.	Mtr.	25.00		
162	b	25 mm dia, FRLS conduit with all accessories.	Mtr.	250.00		
163	c	20 mm dia, FRLS conduit with all accessories.	Mtr.	225.00		
164	d	Supply and running of 1100 V grade HFFR insulated 4 Runs x 6 sqmm & 1x 2.5 sqmm Copper HFFR wire	Mtr.	20.00		
165	e	Supply and running of 1100 V grade HFFR insulated 2 Runs x 4 sqmm & 1x2.5 sqmm Copper HFFR wire	Mtr.	225.00		
166	f	Supply and running of 1100 V grade HFFR insulated 2 Runs x 2.5 sqmm & 1x1.5 sqmm Copper HFFR wire	Mtr.	200.00		
	14.08	POINT WIRING:Moudular switch and Sockets:Supply and Erection Point wiring with all accessroies and with 2 x 1.5 Sq.mm HFFR Insulated 1100V grade copper conductor wires and 1x1.0 Sq.mm HFFR insulated earth wire in 2mm thick 20 mm FRLS. conduit. A separate neutral shall be run for each circuit.				
167	a	Single light point controlled by 6 Amps switchTwo light point controlled by 6 Amps	Each	40.00		
168	b	switch (combined rate for two points)	Each	5.00		
169	c	Three light point controlled by 16 Amps switch (combined rate for three points)	Each	2.00		
170	d	Two way switch Controle by 6A Switch	Each	3.00		
171	e	Ceiling fan point (with fan hook box) including 6 Amps Double pole control switch including 300 Watts electronic step regulator.	Each	4.00		
172	f	Exhaust fan point with wall-mounted 6 Amps 3-pin socket near fan location and 6 Amps single pole controlling switch located independently. The rate shall also include supply of 6 Amps 3 pin plug top.	Each	2.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
	14.09	Supply of Indoor Lighting Fixture :Supply & store the following light fixtures complete with copper ballast, HPF Condenser, starters,controlgear, connecting wire WITH LAMPS /TUBES etc.complete as required.				
173	a	supply LED DECO BATTEN - 40watts Decorative light fixture-4 feet	No.	5.00		
174	b	Supplying LED mirror light fitting with 9W , choke, perspex cover and completely wired for use on 230V 50HZ supply.	Each	4.00		
175	14.10	Supplying of surface mounted rolling type LED square/round Down light 12 Watts with 4/6W GU 10 LED lamp Rib Fabricated from Die cast aluminium with white powder coated prewired to mains connector with suitable driver & having swiveling unit of aluminium die cast eye ball & LED lamp position retained by circular wire spring. 5 years warranty against any manufacturing defect working under standard electrical condition.	Each	5.00		
176	14.11	Supplying of LED Square surface Down lighter with 18 W system wattage Housing shell be with powder coated pressure Die cast aluminium alloy with corrosion resistant polyester powder coat & with extended heat sink. Diffuser/cover made of Lexan plastic material. rated life shall be L70 @50000 Hrs. which shall has inbuilt electrical protection like over/under voltage,short circuit,overload,open circuit & miswiring. Driver is on constant current driver output driver @0.06A with PF >0.9 with line voltage @ 220-240 V @ 50/60 HZ. driver efficiency > 85% & THD<15%. LED efficiency >130 lm/W at 1W & Fixture efficiency .75 lm/w with CRI>75 with injection moulded polycarbonate lens. 5 years warranty against any manufacturing defect working under standard electrical condition.	Each	15.00		
177	14.12	Supplying of '1'x1' or 2'X2' LED Square Recessed luminaire with 36W system wattage Housing shell be with pressure Die cast aluminium alloy with corrosion proof resistant polyester powder coated. Driver operates with voltage range from 100V to 270V 50/60 Hz. with short circuit,overload, & mis wiring protection. Lumen maintenance of 70% at50000 Hrs. injection moulded polycarbonate diffuser for better mechanical stability. light transmission & avoid pot hole effect. junction temperature shall be <70 degree celsius. Driver is on constant current driver @0.06A with PF >0.92 with line voltage @ 220-240 V @ 50/60 HZ. driver efficiency > 85% & THD<15%. LED efficiency >130 lm/W at 1W & Fixture efficiency .75 lm/w with CRI >75 with injection moulded polycarbonate lens with < 80mm depth. 5 years warranty against any manufacturing defect working under standard electrical condition. LED modular down light 2'X2' - 36 watts	Each	4.00		
178	14.13	1x28W FTL surface mounted Explosion protected/weather protection IP-65 luminaire /Electronic ballast suitable for 2x36 W T8 lamps.(CEAG-FCG type: NLLK 96028/1 or approved equivalent)	Each	8.00		
179	14.14	Supplying and fixing 9w LED decorative Bulk Head	Each	1.00		
180	14.15	Supply of Ceiling Fans :Supply & storing of ceiling fan with double ball bearings, accessories, connecting wire and other standard accessories.1200mm Sweep, 3 blade ceiling fan.	Each	4.00		
181	14.16	Exhaust/wall fans :Supply and storing of exhaust fans with sheet metal blades, necessary brackets, anti-corrosive epoxy painting, rubber cushions, etc., The 5 A 3-pin socketnear fan locaion & remote located single-pole controlling switch, are included in the exhaust fan point.300 mm impeller dia, 1400 rpm exhaust fan (1- phase)	Each	2.00		
182	14.17	Supply and Store the External lighting Poles, & fixtures POLE Lighting : Supply, Erecting M.S stepped /welded tubular poles having three section and providing two coats of redoxide paint & two coats of enamelled approved paint and MS base plate of size 300 X 300 X 6mm thick welded at the bottom of pole 40 mm dia GI/flexible PVC pipe connected to MS controle box	Each	3.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
183	14.18	Supplying 70 Watts MH integral post top lantern metal halide fitting suitable for pole mounted with fully vermin, weather proof,elegant in shape, appearance, UV stabilized clear acrylic diffusers,camouflaged horizontal lamp, holder & lamp, IP 54 protection. Electrical safety class 1. The fitting shall have ferromagnetic copper choke with capacitor, igniter & fully wired to operate on 230V 50Hz AC supply with 70 Watts MH lamp.	Each	2.00		
184	14.19	Supply and installation / fixing / provision of pole box with HCR Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with loop-in & loop-Out terminals for 10 Swmm / 25Sqmm 3.5 c Al/Ar / Cu/Ar cable, and branch out 2.5 Sqmm 2 core Al/Cu PVC insulated cable, enclosed in a Thermoplastic,polystyrene enclosure, which should be shock proof, safe , IP65(Weather proof), rust proof, dust proof, water proof, having internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.200mmX200mmx98mm	Each	3.00		
185	14.20	Erection & Commissioning of Indoor Light Fittings :Assemble, installation, testing and commissioning of all lighting fixtures including connection with flexible copper wires, earth wire etc., as required complete.wll/ceiling/ bulk head and decorative fixtures fixed on wall/ceiling with fasteners/grip bolts complete with all accessories.	Each	30.00		
186	14.21	Same as above but fixing with rawl plugs instead of grip bolts.	Each	5.00		
187	14.22	1/2 -28W /LED OR Fluorescent fixtures fixed on wall/ceiling with fasteners / grip bolts, complete with all accessories.	Each	15.00		
188	14.23	Fixing halogen/metal halide/SLV/IL/LED floodlight fitting over existing pole/wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	Each	2.00		
189	14.24	Item same as above but including supply and fixing of ball and socket arrangements, pair of down rods of 16G, 19mm dia. M S rigid conduits of 300mm length with painting, wiring, through down rod, etc. as required and complete.	Each	5.00		
190	14.25	Supply and fixing of 16 Gauge, 19 mm dia, painted MS rigid down rod. (This item will be operated for length in excess of 300mm length considered in Item No. 8.4.4)	Mtrs.	2.00		
191	14.26	Erection and Commissioning of Ceiling Fans :Assemble, installation, testing and commissioning of Ceiling fans including connection with flexible copper wires, earth wire, etc. as required complete.1200 mm sweep 3 blade ceiling fan.	Each	4.00		
192	14.27	Erection & Commissioning of Exhaust Fans :Assemble, installation, testing and commissioning of exhaust fans and accessories including connection with flexible copper wires, earth wire, etc. as reqd. complete.200/300 mm dia. 1400 rpm exhaust fans (single phase)	Each	4.00		
	14.28	Supply and fixing of Telephone socket outlet including M.S. box comprising RJ - 11 socket.for Intercom				
193	a	Supply	Each	1.00		
194	b	Erection	Each	1.00		
	14.29	Supply and fixing of Telephone socket outlet including M.S. box comprising RJ - 45 socket.for DOT				
195	a	Supply	Each	2.00		
196	b	Erection	Each	2.00		
	14.30	Telephone Wires:Supply and running of 0.51 mm tinned copper conductor unarmoured PVC insulated telephone wires in existing conduits.				
197	a	CAT-5E cable	Mtrs.	25.00		
198	b	CAT-6 cable	Mtrs.	25.00		
199	14.31	Jelly Filled Cables:Supply and laying of telephone cables, armoured, annealed tinned copper conductor and petroleum jelly filled with polythene outer jackets conforming to P&Tspecification. The method of laying shall be similar to power cables. Telephone cables shall be run in a separate trench at least 600 mm away from other power cables. (The civil works for excavation will be included under heading "Civil Works for Outdoor Cable Laying). This rate shall include cable end terminations also using kits, cable glands, cable lugs, etc. as reqd. complete. 5 Pair Cables.	Mtr.	125.00		



Sl. No.	BOQ Item no.	Description	Unit	Qty.	Rate in Rs.	Amount in Rs.
200	14.32	Telephone Junction Boxes:Supply and fixing up of suitable 16 Gauge M.S. box with 5 Amps rated terminal modules and covered with 5 mm thick Perspex sheet/M.S. cover flush mounted in wall as required complete. 10 Pair Telephone junction box	Each	1.00		
	14.33	POWER EARTHING SYSTEM:Earthing Stations :Providing the earth stations with necessary materials,labour, civil works, etc. as per Indian Standard specification IS:3043 etc. complete.				
201	a	3 mtrs long 50 mm dia. G.I. Pipe electrode earth station.The chamber size shall be 400x400x400 mm with C.I. Cover plate. The identification number shall be provided both inside and outside.	Each	1.00		
202	b	600x600x3.15 mm copper plate electrode earth station. The chamber size shall be 450x450 mm with C.I. Cover plate. The identification number shall be provided both inside and outside of equipment.	Each	1.00		
203	14.34	Supply & running of GI /Copper strips for grounding connections using necessary fixing materials as required. GI Strip a. 25 X 3 mm	Mtr.	25.00		
204	14.35	8 SWG Copper wire	Mtr.	15.00		
	14.36	MISCELLANEOUS ITEMS				
205	a	Supplying and fixing PVC trunking 100X50mm with Front Plate mounting Accessories End Cap etc. Make: LK India	Mtrs	5.00		
206	b	Supply and laying double walled corrugated (DWC) HDPE Pipe with necessary connecting sockets/Couplings/Tees/bends of same materials in existing trench as per IS 14930 90mm OD / 75mm ID	Mtr.	5.00		
	14.37	Supplying and fixing of Class A Medium duty GI pipe of wall thickness not less than 3.25mm on Pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV Class				
207	a	50 mm	Mtr.	5.00		
208	b	150 mm Hume pipe including fixing accessories, earth Excavation ,refilling etc.,	Mtr.	5.00		
209	14.38	supply and erection of RCC - LT CABLE , TELEPHONE Route Marker	Mtr.	8.00		
	15	CCTV SYSTEM - IP CCTV SYSTEM H.264 Supply, Erection and commissioning of IP HD CCTV system with all mounting accessories and related items. Camera Make : Panasonic, Honywell, Bosch				
210	15.01	Supply of IRD This Full HD (1,920 x 1,080) /60 fps Fixed Box Network Camera is based on the concept of "i-PRO EXTREME". • Full HD 1080p 60fps • iA (intelligent Auto) • Extreme Super Dynamic 144dB • Color night vision (0.0008 to 0.012 lx) • H.265 Smart Coding • FIPS 140-2 Level 1 compliant • ClearSight Coating • Salt-air corrosion resistant	Nos	3.00		
211	15.02	SupplyNetwork readyNAS 2312, cost Effective 1U Rackmount , 12 Bay Storage For Surveillance / file Server / Server or Client Backup / Data Archive & More , suitable for Fiber optics connection	No	1.00		
212	15.03	POE LAN Switch	Each	1.00		
213	15.04	LAN Switch 16 port	Nos	1.00		
214	15.05	UTP CAT 6 Cable	Mtrs	100.00		
215	15.06	PVC conduit 25MM dia with Accessories Supply Only in metre	Mtrs	30.00		
TOTAL AMOUNT WITHOUT TAXES						
GST @ 18%						
GRAND TOTAL IN Rs.						
In words:						
Note : Evaluation shall be done without considering the GST. GST is to be quoted in the column provided, if the same is not quoted(or le considered as the prices are inclusive of GST.						

