

TATA MEMORIAL CENTRE					
ACTREC					
SUB:- Construction of new Entrance Gate at North East corner of ACTREC premises, at ACTREC					
Schedule Of Quantity					
Tender NO:TMC/ACTREC/Entrance Gate/NE Corner/ET-11/2018					
Name of Agency					
SR NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	EARTHWORK				
A.1	Earth work in excavation over areas of all type of strata comprising of any type of material such as soil ,silt,clay, sand, gravel, murum of all varieties, shingles, pebbles, all type of congolmerates,soft rock,ordinary rock, disintegrated rock,fissured/shattered rock, decomposed rock, weathered rock, Hard rock and all such material either in full or part as the case may be adopting any method/ methods as may be convenient or permitted (blasting prohibited) including chiselling ,wedging,etc., in all conditions such as dry , moist, foul, saturated, submerged, etc., as directed by the Engineer etc., all complete including dressing of side ramming bottom,shoring & structing all leads and lifts, getting out excavated soil at any lead & lift, stacking ,levelling,dosing and spreading as directed, pumping and bailing out water, barricading,danger lighting, guarding as directed . The excavated surplus earth (excluding a certain quantity as directed by Project Incharge, which is to be stacked properly within the site at the specified location for backfilling work) shall be carted away by the contractor outside the campus.The rate shall be inclusive of all taxes including royalty and expenses for all incidental items including neccessary soil tests to ensure SBC for laying foundation as may be suggested by the structural engineer. (Pit measurement to be recorded for payment i.e. L X B of PCC below foundation and depth is as per actual)	cu.m	200.00		-
A.2	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), for all leads & lifts in all type of strata comprising of any type of materials either in full or part as the case may be adopting any method/methods as may be convenient as permitted excluding blasting in all conditions such as dry, moist, foul, saturated, submerged, etc., including backfilling, levelling, dosing, spreading,dressing of sides, shoring, planking, strutting, timbering ,ramming of bottom ,pumping and bailing out water ,barricading danger lighting guarding, getting out excavated soil & stacking as directed by Engineer for all leads & lifts etc. including all taxes, royelty, etc complete. Excavated surplus earth to be disposed off outside campus.	cu.m	500.00		-
A.3	Filling in plinth ,floors and around the foundations with approved excavated material in 15cm to 20cm layers including watering and compaction complete including rehandeling cost, compaction tests, etc as per the instruction of EIC	cu.m	200.00		-
A.4	Filling in plinth, floors and around the foundations with contractor's murum in 15cm to 20cm layers including watering and compaction complete including compaction tests as per the instructionof EIC.	cu.m	200.00		-
A.5	Providing and laying rubble soling including hand setting vertically in all positions, depths below grade level, foundations, flooring and for providing hard filling in interstices, with 65 mm quarry metal and coarse sand, murum including watering, thoroughly compacting each layer as per directions etc. complete.	cu.m	200.00		-

A.6	Providing Preconstructional Anti termite treatment by treating the bottom surface and the sides of excavation in soil with the plinth beam at the rate of 3 litres of emulsion concentrate of one percent concentration of CHLORPYRIFOS 20% F.C.ISI approved conforming(I.S. 8944) (i.e. by diluting 5 ltr. of chloropyrifoc 20% EC with 95 ltr. of water) and spraying by high volume sprayer per sq.mtr. surface area	sq.m	250.00		-
TOTAL OF A EARTHWORK					-
B	PLAIN AND REINFORCED CEMENT CONCRETE WORKS				
B.1	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size).	sq.m	20.00		-
B.2	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sq.m	20.00		-
B.3	Making plinth protection 75 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 150mm thick compacted thickness of rubble soling, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	sq.m	50.00		-
B.4	Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cu.m	22.00		-
B.5	Providing and laying in position specified grade of reinforced cement concrete, including the cost of centering, shuttering, finishing but excluding reinforcement - All work up to plinth level : 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cu.m	17.00		-
B.6	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts, coping, parapet etc. in superstructure at all level & height , including cost of centering, shuttering, finishing but excluding reinforcement : 1:1.5:3 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cu.m	50.00		-
B.7	Providing and laying in position machine batched and machine mixed design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying including the cost of centering, shuttering, finishing and including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability but excluding reinforcement as per direction of Engineer-in-charge.				
a	upto plinth level	cu.m	75.00		-
b	above plinth level	cu.m	55.00		-
B.8	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	50 kg cent	502.00		-
B.9	Steel reinforcement with Thermo-Mechanically Treated bars for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Minimum Grade of Steel - Fe 500				
a	upto plinth level	Kg	8100.00		-
b	above plinth level	Kg	7850.00		-
TOTAL OF B PLAIN AND REINFORCED CEMENT CONCRETE WORKS					-
C	MASONARY WORKS				

C.1	Providing and laying autoclaved aerated cement blocks masonry with 150mm/200mm/300 mm thick AAC blocks in sub/ super structure at all level and height with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer- in-Charge.	cu.m	40.00		-
C.2	Providing and laying autoclaved aerated cement blocks masonry with 100 mm thick AAC blocks in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	cu.m	20.00		-
C.3	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 Cement : 6 coarse sand : 12 graded stone aggregate 20mm nominal size) at window sills level and the like. Cement mortar 1:6 (1 Cement : 6 coarse sand)	cu.m	70.00		-
C.4	Brick work with cement mortar 1:4 using well burnt locally available bricks of approved quality including scaffolding raking out joints above ground level simultaneous pointing below ground level, curing etc.complete all as directed by the Engineer-in-Charge.In foundation & plinth drain walls chambers & In superstructure of all floor levels.	cu.m	45.00		-
TOTAL OF C MASONARY WORKS					-
D	PLASTERING AND FINISHING WORK				
D.1	Providing and applying 12 mm cement plaster of mix in 1:4 (1 cement: 4 fine sand)	sq.m	500.00		-
D.2	Smooth finishing of the exposed surface of R.C.C. work with 6 mm thick cement mortar 1:3 (1 Cement : 3 fine sand).	sq.m	200.00		-
D.3	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge including providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturer at all level & height with scaffolding etc. Complete.	sq.m	500.00		-
D.4	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sq.m	700.00		-
D.5	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With water thinnable cement primer on wall surface having VOC content less than 50 grms/litre	sq.m	700.00		-
D.6	Painting (two or more coats) with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.	sq.m	50.00		-
D.7	Wall painting (two or more coats) with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.	sq.m	700.00		-

D.8	Finishing walls with Acrylic Smooth exterior paint of required shade on New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sq.m	500.00		-
TOTAL OF D PLASTERING AND FINISHING WORK					-
E	JOINERY WORKS				
E.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with 3 or more coats of melamine polish alongwith hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid separately). Second class Indian teak wood including two coats bitumen paint to unexposed surfaces.	cu.m	0.75		-
E.2	Providing & Fixing to door frame (400X40x5) mm flat iron hold fast (anchor fastnors for concrete surface) including embedding in cement concrete block in 1:3:6 mix (1 cement : 3 coarse sand: 6 graded stone aggregate 20mm nominal size) including concrete, shuttering, staggging, curing etc. all as directed by EIC	each	150.00		-
E.3	Providing and fixing wooden moulded beading of size 50x12 mm with 3 or more coats of melamine polish to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete :	rmt	100.00		-
E.4	Providing & fixing 35mm thk flush door shutter, core of block board construction with frame of teak wood beading 50mm x 12mm thick with 3 or more coats of melamine polish & laminate of 1.00 mm thick of approved color and texture on both faces of door. Rate should be including cost of Adhesive, Screws during fixing etc. complete.	sq.m	35.00		-
E.5	Providing & fixing matt finished Stainless Steel Profile thumb turn Cylinder (Key outside, thumb turn inside) with key hole fixed with concealed mortise lock case all necessary screws etc.complete	each	10.00		-
E.6	Providing & fixing SS 304 grade of steel matt finished lever handle with cover and all necessary screws etc.complete	each	10.00		-
E.7	Providing & fixing stainless Steel matt finished Cylindrical Lock (Outside - Key Knob with Cylinder, Inside - Knob with Push Button) with all necessary screws etc.complete	each	4.00		-
E.8	Providing and fixing bright finished Stainless Steel bearing hinges of 125 x 70 x 4 mm with necessary screws etc complete	each	20.00		-
E.9	Providing & fixing 100 mm bright finished SS floor door Stopper with rubber cushion , magnetic catcher , screws etc. to suit shutter thickness complete.	each	10.00		-
E.10	Providing & fixing bright finished SS Tower bolts (barrel type) with screws etc. complete. 300 x 10 mm	each	15.00		-
TOTAL OF E JOINERY WORKS					-
F	STRUCTURAL STEEL & ALUMINIUM WORK				
F.1	Providing and fixing in position colour anodized extruded modular aluminium section Three track sliding windows with window frame bottom track section 92 x 31.75 x 1.30mm at weight 1.070 kg/Rmt. Top and side track section 92 x 31.75 x 1.30mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25mm at weight 0.417 kg/Rmt. As per detailed drawings , 6 mm thk fixed glass panel in middle section having frame made out extruded tubular section of size 63 x 38 mm x 2.00 mm thickness (wt.1.054 kg/Rmt) mechanically assembled at corners with glazing, beading of angle 25 x 25 x 1.60mm thick (wt.0.21 kg/Rmt) and as directed by Engineer-in-charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 6mm thick approved shade glass and aluminium mosquito net shutter with stainless steel jali with all required screws and nuts etc, complete. The glass would be fixed with taper clips with EPDM beading. All gaps between civil work and aluminium	sq.m	5.00		-

F.2	Supplying and fixing in position colour anodized extruded modular aluminium section four track sliding windows made up of four track drain bottom section of size 122 x 45 x 1.3mm thick (1.829kg/Rmt) and top and sides sections of size 122 x 31 x 1.1mm thick (1.205 kg/Rmt). The shutter should be of bearing bottom of size 40 x 18 x 1.20mm thick (0.417 kg/Rmt) top member of size 40 x 18 x 1.20mm thick (0.475 kg/Rmt) interlocking section size of 43 x 27 x 1.30 mm thick (0.558 kg/Rmt) and handle section of size 43 x 18 x 1.30 mm thick (0.424 kg/Rmt) and as directed by Engineer-in-charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 6mm thick approved shade glass and aluminium mosquito net shutter with stainless steel jali with all required screws and nuts etc, complete. The glass would be fixed with taper clips with EPDM beading. All gaps between civil work and aluminium frames shall be sealed and made watertight by applying silicone sealant and with good quality hardware and accessories like GI screws, Virgin PVC ,gaskets, silicon sealant on the periphery, as per detailed drawing etc complete as	sq.m	5.00		-
F.3	Providing and fixing in position colour anodized extruded modular aluminium section Three track sliding windows with window frame bottom track section 92 x 31.75 x 1.30mm at weight 1.070 kg/Rmt. Top and side track section 92 x 31.75 x 1.30mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25mm at weight 0.417 kg/Rmt and as directed by Engineer-in-charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 6mm thick approved shade glass and aluminium mosquito net shutter with stainless steel jali with all required screws and nuts etc, complete. The glass would be fixed with taper clips with EPDM beading. All gaps between civil work and aluminium frames shall be sealed and made watertight by applying silicone sealant and with good quality hardware and accessories like GI screws, Virgin PVC ,gaskets, silicon sealant on the periphery, as per detailed drawing etc complete as directed by Engineer-in-Charge. Ref. Drawing Number -	sq.m	30.00		-
F.4	Providing and fixing aluminum windows / ventilators (including frame and shutter) using colour anodized extruded modular section of approved make & shade with three partitions using 6mm single vision glass of approved make & shade in one partition, Exhaust opening in one partition & 4 mm thk frosted glass louvers in one partition with using weight and size of section not less then as specified or as shown in drawing including sub frame (wherever specified) ,locking arrangement,silicon sealant ,EPDM gaskets, including all aluminum fixture and fittings etc. complete . Rectangular tube @0.478kg/m	sq.m	20.00		-
F.5	Providing, fabricating, hoisting and erecting in position structural steel works in welded (SAIL , TATA , VIZAG & using electrodes of AdOr or ES4B or Deh Secheron make only) in built up sections comprising of trusses, lattice girders, brackets, columns, bracing and other connected steel work with necessary joists, channels, angles L-sections, plates, chequered plates , gusset plates, rivots, chemical anchor fastners , bolts, nuts, washers, including cutting, welding, for all heights and levels in all type of structural steel with applying a priming coat of approved steel primer using structural steel etc. as required.	kg	1500.00		-
F.6	Steel work in welded (SAIL , TATA , VIZAG & using electrodes of AdOr make only) in built up tubular sections (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position for all heights and levels and applying a priming coat of approved steel priming coat of approved steel primer and two coats of synthetic enamel painting., including welding and bolted with special shaped washers etc. complete with Hot finished welded type tubes	kg	3500.00		-

F.7	Providing and fixing M.S. grills of required pattern Fixed to steel windows by welding in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel priming coat of approved steel primer and two coats of synthetic enamel painting.	sq.m	115.00		-
F.8	Supply, fabrication and installing in position MS gates of required width and height of including wicket gate of approved size made of of channels joists, angles, plates, pipes and MS sheets including stiffeners, bracing, fabricated hinges, MS aldrops locking arrangement, tempered steel pivots, guide track of MS tee, ball bearing arrangement, casters wheels etc. all complete as per drawing, specification and as directed by Engineering incharge all complete. The main entrance gate shall be fabricated out of Mild steel sections completed with applying a priming coat of approved steel primer and two coats of synthetic enamel painting. The structural steel works for gates shall include supply, fabrication, transportation, erection of structural steel gates complete with placing in position embaded parts in concrete / brickwork and in road surface including cutting, grinding, drilling of holes, welding and painting etc complete.	kg	12000.00		-
TOTAL OF F STEEL & ALUMINIUM WORK					-
G	FLOOR AND FLOOR FINISHES				-
G.1	Providing and laying Vitrified satin finish floor tiles of size 600 mm x 600 mm (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS Code 15622 of approved make in all colours & shades and pattern for flooring in required position laid on 20mm thk cement mortar 1:4 (1cement: 4 coarse sand) including neat cement float, grouting the joints with white cement & matching pigments , curing and cleaning etc. complete. (Price Range Rs.750 to Rs.850 Per Sq.M)	sq.m	70.00		-
G.2	Providing and laying Vitrified matt finish floor tiles of size 600 mm x 600 mm (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS Code 15622 of approved make in all colours & shades and pattern for flooring in required position laid on 20mm thk cement mortar 1:4 (1cement: 4 coarse sand) including neat cement float, grouting the joints with white cement & matching pigments , curing and cleaning etc. complete. (Price Range Rs.750 to Rs.850 Per Sq.M)	sq.m	40.00		-
G.3	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3kg/sqm	sq.m	15.00		-
G.4	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	sq.m	10.00		-
G.5	Providing and fixing Vitrified Glossy Finish wall tiles of size 300 x 600 conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. Price range Rs.550 to Rs. 650Per Sq.M)	sq.m	100.00		-
G.6	Providing & fixing 18 mm thk approved shade Polished Granite in skirting, risers of steps, dado and pillars laid on 12mm(avg.) thk. Cement mortar 1:3 (1 cement :3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing etc. complete. (Price range 1600 to 1800 Rs per Sq Mtr.)	sq.m	5.00		-

G.7	Providing and laying Polished Granite stone flooring (Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent) in required design and patterns, in linear as well as curvilinear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (Price range 1600 to 1800 Rs per Sq Mtr.)	sq.m	15.00		-
G.8	Providing & fixing 18 mm thk approved shade flamed finish Granite stone in skirting, risers of steps, dado and pillars laid on 12mm(avg.) thk. Cement mortar 1:3 (1 cement :3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing etc. complete. (Price range 1650 to 1850 Rs per Sq Mtr.)	sq.m	30.00		-
G.9	Providing & fixing Kota stone slabs 20 mm thick Tread Tiles/ wall top/ coping band with rounded off nosing, antiskid groove laid on 20 mm (average) thick bed of cement mortar 1:4 (1 cement : 4 coarse sand) with neat cement slurry including pointing with pigmented cement slurry to match the shade of slab, cleaning etc. complete. (Price range 550 to 650Rs per Sq Mtr.)	sq.m	180.00		-
G.10	Providing and fixing 18mm thick polished approved shade marble machine cut for kitchen platforms, Basin counters, window sills, Jamb, Door Frame , Urinal Partitions , fascia and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including facia fixing with epoxy resin based adhesive, rubbing, curing, edge moulding and polishing to edge to give high gloss finish, etc. complete at all levels. (Price range 1600 to 1800 Rs per Sq Mtr.)	sq.m	32.00		-
G.11	Providing and fixing 18mm thick approved shade kadappah machine cut for kitchen platforms, Basin counters, window sills, Jamb, Door Frame , Urinal Partitions , fascia and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including facia fixing with epoxy resin based adhesive, rubbing, curing, edge moulding and polishing to edge to give high gloss finish, etc. complete at all levels. (Price range 1600 to 1800 Rs per Sq Mtr.)	sq.m	70.00		-
G.12	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineerin- charge.	each	190.00		-
G.13	Providing and laying 60mm thick faciory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	sq.m	100.00		-
TOTAL OF G FLOOR AND FLOOR FINISHES					-
H	ROOFING AND WATERPROOFING WORKS				

H.1	Providing and applying Cement based Crystalline waterproofing system for watertank/ sumps/ sloping and flat slabs/chajjas/ terrace etc of approved make. The waterproofing system shall include treatment of construction joints, downtake pipes junctions, cutouts, repair of honey combing if any in the concrete surface, filling the cracks, grouting if required, making vatta along the horizontal and vertical joints of concrete with approved make . The application of the system shall be as per manufacturers specifications over the surface include cleaning of the surface with wire brushing, watering, curing etc. complete. (The process and applicator shall be as approved by the manufacturer. Contractor to provide 10 year guarantee on a stamped paper.)	sq.m	25.00		-
H.2	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing	sq.m	225.00		-
H.3	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	each	10.00		-
H.4	Providing and fixing waterproofing treatment to sunken portions consisting of layers of Brick Bat coba of 75 mm thick in cement mortar 1:2 sand witched between two layers of cement mortar 1:4 (20 mm thick) mixed with water proofing compound conforming to IS. 2645, top finishing coat of cement slurry 6 to 12 mm thick with water proofing compound conforming to IS. 2645 etc. complete including waterproofing treatment to 750 mm height (maximum) of side wall, and bottom surface in cement mortar 1:4 with waterproofing compound conforming to IS. 2645 and covering 10 years guarantee on court fee stamp of Rs. 100 with ponding test including all lead, lift etc. complete as directed by Engineer.	cu.m	5.00		-
H.5	600 X 600MM PLAIN ALUMINIUM METAL TILE GRID FALSE CEILING :- Providing & fixing Plain Aluminium metal tile grid suspended false ceiling system with Lay-in type aluminium powder-coated panels & 15mm 'T' Framework. The Panels in form of tiles shall be lay-in type of size 584mm X 584 mm X 10 mm high making a module of 600mm X 600mm & shall be made out of 0.7mm thick aluminium with Square edges having recess flange of 15mm. The tile end shall be raised upward by 38mm and bend outward to lay the tile in framework. The tiles shall be made from corrosion resistant Al.-Mg. Alloy AA3105. The Tile shall be epoxy polyester powder coated with Antibac in white colour which is complaint to ROHS directive. The Primary Suspension shall consist of Pre punched 15mm width Main Tee section made out of GI. The exposed surface shall have an Aluminium coil coated cap. The Secondary suspension shall consist of pre-punched 15mm width cross tee section in 600mm and 1200mm size made out of GI. The exposed surface shall have an Aluminium coil coated cap. The 15mm main tee runners shall be suspended at an interval of 1200mm centre to centre. The 15mm cross tee runner shall be suspended at 600mm centre to centre and	sq.m	15.00		-

H.6	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall	sq.m	25.00		-
H.7	Providing & fixing asphalt Shingles for Roofing in approved colour & pattern over RCC Roof including all fixing arrangement such as starters , screwing etc. and ensuring water tightness. Rate should be including the cost of below mentioned application procedure. <ul style="list-style-type: none"> •All concrete surfaces shall be overlaid with a minimum of 1" Cement screed •Surface provided shall be duly rendered to a smooth finish and bone dry. •A coat of bituminous primer will be applied and left till it touch- dry. •Starter course will be fixed at the bottom of sloping roof surface (Eave edge) before commencing the application of shingles. • shingles will then be fastened using approved Corrosion resistant nails, at suitable distance as per manufacturer's specifications. •The front part of the shingle shall be stuck to the subsequent shingle using the self-adhesive tape provided at the bottom. •Ridges will be fixed once the surface coverage is complete 	sq.m	7.00		-
H.8	Providing & fixing asphalt Shingles in approved colour & pattern over RCC Roof for Ridge & Flashing including all fixing arrangement such as screwing etc. and ensuring water tightness. Rate should be including the cost of below mentioned application procedure. <ul style="list-style-type: none"> •All concrete surfaces shall be overlaid with a minimum of 1" Cement screed •Surface provided shall be duly rendered to a smooth finish and bone dry. •A coat of bituminous primer will be applied and left till it touch- dry. •Starter course will be fixed at the bottom of sloping roof surface (Eave edge) before commencing the application of shingles. • shingles will then be fastened using approved Corrosion resistant nails, at suitable distance as per manufacturer's specifications. •The front part of the shingle shall be stuck to the subsequent shingle using the self-adhesive tape provided at the bottom. •Ridges will be fixed once the surface coverage is complete 	m	7.00		-
TOTAL OF H ROOFING & WATER PROOFING					-
I	ROAD WORK				
I.1	Providing 50 mm [about 2"] thick grout bituminous road surface including supplying all materials, preparing the existing road surface laying the required thickness of metal layer, heating and spraying bitumen dose of 5 kg/1 sqm, spreading chips, laying without seal coat and compacting with static power roller etc. complete. [with bulk bitumen 60/70grade or vg30].	sq.m	300.00		-

I.2	Providing and constructing w.b.m. road in layers of 75/100 mm to achieve depth of 450 mm compacted thickness, preparation of subgrade with murum screenings, Including supplying and conveying all materials with all leads and lifts, spreading, sectioning, artificial watering and compacting in layers with three wheeled steel static roller / vibratory roller as directed by EIC including maintenance of diversion road during construction etc. complete for the required width of road	cu.m	105.00		-
I.3	Providing and laying bituminous tack coat by mechanical sprayer (bouzer) for long stretches or by manual means for patch repairs including supplying all materials, preparing / cleaning the existing surface by compressed air or manual brooming , heating bitumen and applying tack coat evenly on the surface etc.complete. @ 0.5 kg./sq.m. of bitumen as directed by eic.[with bulk bitumen 60/70 grade or vg30]. Providing & laying hot mix hot laid bituminous macadam 50/75 mm average thickness with 3.5% bitumen of grade 60/70 or vg30 by weight of total mix including diversion of traffic supply of all materials, heating bitumen and chips in drum mix plant, cleaning the road surface, laying bituminous macadam by paver finisher & manual laying for pot holes including compacting with static/ vibratory power roller as directed by eic, transportation and cost of all materials, bitumen from refinery, etc. complete. Including providing bituminous liquid seal coat to black top surface including supplying all materials with all leads,preparing existing road surface heating and applying bitumen @ 1.0 kg/sqm by mechanical sprayer (bouzer), spreading chips and rolling complete [by using bulk bitumen 60/70 grade or	sq.m	600.00		-
I.4	Providing and laying bituminous tack coat by mechanical sprayer (bouzer) for long stretches or by manual means for patch repairs including supplying all materials, preparing / cleaning the existing surface by compressed air or manual brooming , heating bitumen and applying tack coat evenly on the surface etc.complete. @ 0.5 kg./sq.m. of bitumen as directed by eic.[with bulk bitumen 60/70 grade or vg30]. Providing & laying hot mix hot laid bitumen carpet 25 mm average thickness with 5% bitumen of grade 60/70 or vg30 by weight of total mix including supplying all materials heating bitumen and chips.mixing bitumen and chips in hot mix plant. laying bitumen carpet with paver finisher & manual laying for pot holes including compacting with static/vibratory power roller as directed by eic, transportation and cost of all materials, bitumen from refinery, etc. complete. Including providing bituminous liquid seal coat to black top surface including supplying all materials with all leads,preparing existing road surface heating and applying bitumen @ 1.0 kg/sqm by mechanical sprayer (bouzer), spreading chips and rolling complete [by using bulk bitumen 60/70 grade or vg30] as directed by eic.	sq.m	600.00		-
I.5	Providing and laying at or near ground level factory made kerb stone of M-25 Grade cement with nominal reinforcement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) includin making joints with or with out grooves (thickness of joints except at sharp curve shall not more than 5mm) including making drainage opening wherever required complete etc., as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone of 900x300 size approx shall be	cu.m	10.00		-
TOTAL OF I ROAD WORK					-
J	DISMANTLING AND DEMOLISHING WORK				
J.1	Demolishing cement concrete/reinforced concrete manually/ by mechanical means including disposal of material within 50 metres lead or outside the premises as per direction of Engineer - in - charge. Nominal concrete or richer mix (1/c equivalent design mix)	cu.m	100.00		-
J.2	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead or outside the premises as per direction of Engineer - in - charge.	sq.m	25.00		-

J.3	Removing sand stone slabs in dodo work, laid in cement mortar 1:4 (1 cement : 4 coarse sand), including necessary repairs and cement pointing with same mortar complete, including disposal of rubbish to dumping ground or outside the premises, all complete as per directions of Engineer-In-Charge.	sq.m	100.00		-
J.4	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
	a) of area 3.00 sqm & below	sq.m	10.00		-
	b) of area above 3.00 sqm	sq.m	10.00		-
J.5	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead : Of sectional area 40 square centimetres and above	cu.m	0.25		-
J.6	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead outside the premises as directed by Engineer-in-charge.	sq.m	10.00		-
J.7	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sq.m	20.00		-
J.8	Demolishing stone rubble masonry in cement mortar manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead outside the premises as per direction of Engineer-in-charge :	cu.m	100.00		-
J.9	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cu.m	100.00		-
TOTAL OF J DISMANTLING AND DEMOLISHING WORK					-
K	HORTICULTURE WORK				
K.1	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cu.m	25.00		-
K.2	Supplying and stacking of good earth (Garden Soil) at site including royalty and carriage upto 5 km. (earth measured in stacks will be reduced by 20% for payment).	cu.m	25.00		-
K.3	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	cu.m	25.00		-
K.4	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) : Screened through sieve of I.S. designation 4.75 mm	cu.m	25.00		-
K.5	Supplying and stacking sludge at site including royalty and carriage upto 5 km complete (sludge measured in stacks will be reduced by 8% for payment).	cu.m	25.00		-
K.6	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	cu.m	25.00		-
K.7	Supplying & Planting shrubs, creepers, ground covers, as listed below as per the mentioned size including adding fertilizers as per planting schedule, manure and Neem cake etc. including their maintainance upto 3 months during which the contractor is suppose to maintain all these in all respects such as watering, pruning, spraying of pesticides, fungicides, insecticides, adding fertilisers, removing of weeds as per specification and direction of the Engineer and also replacing with similar plants in case of death of any plants. The plant will be selected and approved by the Engineer before plantation.				
Schedule of Shrubs					
	1 Sachytarpheta purple minimum 0.45 mtr height	each	50.00		-
	2 Allamanda nerifolia nana minimum 0.45 mtr height	each	50.00		-
	3 Rhoeco minimum 0.45 mtr height	each	50.00		-
TOTAL OF K HORTICULTURE WORK					-

L	ARCHITECTURAL SERVICES FOR STATUTORY APPROVALS	LS	1		-
	Schedule for payment of the fee:				
L.1	After Appointment of Structural consultant, Architect for the job. Submission of design & drawing of the scheme to ACTREC. After approval of scheme proceedings to the necessary permissions from competent Authority.	10% of the Total fee payable.			
L.2	Submission of Design drawing Electrical drawing & all necessary required documents to ACTREC	Cumulative 20% of the Total fee payable.			
L.3	Applying for Fire NOC Tree NOC (Cutting/shifting) & for any other Ancilliary permissions rom competent Authority & receiving them from the same & handing over to ACTREC	Cumulative 40% of the Total fee payable.			
L.4	Applying for Environmental Clearance Certificate, Storm water drain certificate, Water supply & Drainage line Department certificate or permissions from competent authority & receiving them from the same & handing over to ACTREC.	Cumulative 60% of the Total fee payable.			
L.5	Applying for Commencement Certificate, Building construction permission from competent Authority & receiving them from the same & handing over to ACTREC	Cumulative 80% of the Total fee payable.			
L.6	Applying for Completion Certificate/OC from competent Authority & receiving them from the same & handing over to ACTREC.	Cumulative 90% of the Total fee payable.			
L.6	On completion of defect liability of construction contractor on listing the defects	Cumulative 100% of the Total fee payable.			
TOTAL OF L ARCHITECTURAL SERVICES FOR STATUTORY APPROVALS					-

M	PLUMBING WORKS				
M.1	Providing and fixing White/ Star/ Pure glazed vitreous China ware Indian Water Closet Pan with P or S trap with fixing arrangement with including making and cutting good the walls with complete with separate low level dual flushing cistern discharge to 6lit/3 lit per flush with fitting, Health faucet(Low flow), Wall Hook.with making pvc flexible inlet connection from angle cock to flush tank including supply of angle stop cock, two way bib cock ,Hose pipe and necessary fittings cutting, grooving, making good the walls etc. complete as per direction of engineer-in-charge. Size (mm) 775 x 360 x 660	Each	1		-
M.2	Providing and fixing White/ Star/ Pure Wall hung glazed vitreous China ware European Wall Mounted Water Closet Pan with P or S trap with C.I chair bracket with C.P brass screws or other fixing arrangement with matching seat cover, including making and cutting good the walls with complete with separate low level dual flushing cistern discharge to 6lit/3 lit per flush with fitting, Health faucet(Low flow), Wall Hook.with making pvc flexible inlet connection from angle cock to flush tank including supply of angle stop cock, two way bib cock ,Hose pipe and necessary fittings cutting, grooving, making good the walls etc. complete as per direction of engineer-in-charge. Size (mm) 775 x 360 x 660	Each	1		-
M.3	Providing and fixing white colour flat back urinals , mounted on bracket (R.S.or C.I.) with water inlet from top side with CP waste coupling, Push Tap, Connecting SS pipe , SS bolts & nuts to fix the urinal with all hangers and brackets ,along with all arrangement complete with all flanges. Urinal Size (mm) 710 x 480 x 300 with cistern and necessary fittings for complete installation of fixture	Each	4		-
M.4	Providing and fixing approved make white vitreous china Wash Basin under counter type including C.P. Push type Pillar cock , 32 mm C.P. Waste coupling, Flexible pipe inlet connection ,Bottle trap and angle valve and stop cock C.P. Wall Flange complete with necessary bolts, bends, tees, brass screws including cutting of granite, making holes in the wall if required and making the surface good to the satisfaction of Engineer. Size (mm) 550 x 445 (including all necessary fittings for complete installation of fixture)	each	2		-
M.5	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 : 15mm nominal bore	each	4		-
M.6	Providing and fixing Nahani trap with SS cockroach repeller Square flat cut classic 127mm x 127 mm of approved make for 110 mm dia S.W.R. Pipes etc. complete.Including all necessary fittings for complete installation of nahani trap	each	5		-
M.7	Providing and fixing toilet paper holder : C.P. brass	each	2		-
M.8	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms. Plastic Container	each	2		-
M.9	Providing and fixing P trap as per approved make etc. complete.	each	6		-
M.10	Providing and fixing rigid PVC S.W.R. Type B (soil, waste & rain water drainage pipes of approved make including lubricant, etc. complete (single/double) socketed : (including all necessary fittings like bends traps for smooth functioning of drain system)				
	a) 100 mm dia	m	25		-
	b)75 mm dia	m	20		-
M.11	Providing and fixing rigid PVC S.W.R. Type B (soil, waste & rain water) drainage pipes including fittings of approved make including lubricant etc. complete (single/double) socketed :(including all necessary fittings like bends traps for smooth functioning of storm drain system)				
	a) 160 mm dia	m	25		-
	b) 75 mm dia	m	10		-
	c) 40 mm dia	m	10		-
	d) 50mm dia	m	10		-
M.12	Providing and fixing Clean out with all necessary fittings as per specifications				
	a) 100 mm Sand cast iron S&S as per IS - 3989	each	2		-

	b) 75 mm Sand cast iron S&S as per IS - 3989	each	2		-
M.13	Providing and fixing 3 layer PP-R (Poly polypropylene Random co-polymer) pipes & fittings SDR 7.4, U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. (Including all necessary fittings for smooth functioning of water supply system) Concealed work, including cutting chases and making good the walls etc.,				
A	PN - 16 Pipe, 20 mm OD	m	20		-
B	PN - 16 Pipe, 25 mm OD	m	30		-
C	PN - 16 Pipe, 32 mm OD	m	10		-
M.14	Providing and fixing 3 layer PP-R (Poly polypropylene Random co polymer) pipes & fittings SDR 7.4, U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall				
	a) PN - 16 Pipe, 32 mm OD	m	30		-
	b) PN - 16 Pipe, 40 mm OD	m	30		-
M.15	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. 32 mm nominal bore	m	50		-
M.16	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
	a) 25 mm nominal bore	each	4		-
	b) 40 mm nominal bore	each	3		-
M.17	Providing and fixing gun metal non- return valve of approved quality Vertical 32 mm nominal bore	each	2		-
M.18	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 90x60 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	5		-
M.19	Extra for depth for manholes : Size 90x60 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	m	6		-
M.20	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:150 x 100 mm size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2		-
M.21	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete 150 mm dia. R.C.C. pipe	m	60		-
M.22	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
	a) 100 mm diameter S.W. pipe	each	10		-
	b) 150 mm diameter S.W. pipe	each	40		-

M.23	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	cum	15		-
M.24	supply and installation of HDPE Sin-tex tank of 500 liter (including drain and overflow pipe connections with all valve arrangements and necessary accessories for complete smooth functioning of water supply system including water meter strainer if require as per requirement)	nos	1		-
M.25	Supplying, erecting, testing and commissioning self contained water cooler 230/250 Volts 50 cycles nominal cooling capacity of 150 liters per hour and storage capacity 150 liters as per specification . Water coolers should be used of star rating 3 and above as per B.E.E	nos	1		-
M.26	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 : (Please refer rate analysis 2016 18.27.1) (Including necessary fittings , commissioning , testing for smooth functioning of water supply system)				
	a) 100nb	Mtr	12		-
	b) 150nb	Mtr	12		-
M.27	Excavating trenches of required width for pipes, cables, etc, including excavation for sockets, depth upto 1.5 m, including getting out the excavated materials, returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed, within a lead of 50 m : Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia (20mtr x 0.6 x 0.6)	Mtr	10		-
TOTAL OF M PLUMBING WORKS					-
N	ELECTRICAL WORK				
	HUME PIPE				
N.1	Supply ,Installation, Testing & Commissioning of following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc. as required. As per specification/instruction of EIC/OIC 100 mm dia (For Electrical & For LV System)	Metre	100		-
	EARTHING				
N.2	Supply, Installation, Testing and commissioning of Earthing with GI earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7mtr long etc with charcoal or coke and salt as required. As per specification/instruction of EIC/OIC	Each	2		-
N.3	Supply, Installation, Testing and commissioning of 25 mm x 5 mm GI strip on surface or in recess for connections etc as required. As per specification/instruction of EIC/OIC.	Meter	80		-
N.4	Supply, Installation, Testing and commissioning of 6 SWG GI wire on surface or in recess for connections etc as required. As per specification/instruction of EIC/OIC.	Meter	60		-
	External Lighting				

N.5	Supply, Installation, Testing & Commissioning of 6 Watt LED or equivalent Shurb spot light having pressure die-cast aluminium housing with Coated with epoxy zinc phosphate primer and finished using environmentally stable polyurethane based paint, suitable to following features. As per specification/instruction of EIC/OIC. -High Transmissivity diffuser>85%, -IP-65/67, -Integral Driver -Warm White, --Provide Uniform low glare lighting, -CRI should be good, -Input voltage - 24 V, 50 Hz, PF>0.9, -Colour Temperature-3000K.	Each	2		-
N.6	Supply, Installation, Testing & Commissioning of 10 Watt LED or equivalent Focus Light having pressure die-cast aluminium housing with Coated with epoxy zinc phosphate primer and finished using environmentally stable polyurethane based paint, suitable to following features. As per specification/instruction of EIC/OIC. -High Transmissivity diffuser>85%, -IP-65/67, -Integral Driver -Warm White, --Provide Uniform low glare lighting, -CRI should be good, -Input voltage - 24 V, 50 Hz, PF>0.9, -Colour Temperature-3000K.	Each	2		-
LT Panels					
N.7	Supply Installation, testing and commissioning of Following all Indoor Panels comprising below points. 1)-Panels shall be fabricated out of 16/14 swg CRCA sheet steel, with necessary structural supports in form of structural steel sections. 2)-Floor mounted, IP-52 degree protection, Top bus duct or cable entry as per the case & top cable exit steel, 2mm frame, 1.6 mm compartments & tank process treated & 2- times Epoxy painted. 3)-The panel shall be compartmental, Form 3B type, with suitable size of bus bar and separate cable and busbar chambers. 4)-Proper gland size holes to be provided by the manufacturer with proper sticker and danger sign on all sides of panel. 5)-The cable chambers shall be free from any live open connections and minimum clearance to be provided for termination. 6)-Current Density- 1.2 Ampere/1 Sq.mm (IS-8623 for factory built assembly). 7)- Earthing terminal. 8) Digital Ammeter/Voltmeter, LED indication lamps for all feeders, Name plates, suitable connectors on outgoing side, shrouding, danger plates, earthing terminals, busbar sleeves, 9. Panel will have two separate incomers - Normal and DG set (Emergency), distribution to be done accordingly. As per specification/instruction of EIC/OIC. Factory testing/Inspection included.	Each	1		-
N.8	Main LT board each comprising Incomer 1 no.-Grid side FP 125 A-50 kA MCCB-FROH with cable spreader, Manual, with integral LSI protection, 3x metering CTs, MFM(EM6459), R/G/A lamps (Location of breaker as per Single Line Diagram). 1 no.-DG side FP 125A-50 kA MCCB-FROH with cable spreader, Manual, with integral LSI protection, 3x metering CTs, MFM(EM6459), R/G/A lamps (Location of breaker as per Single Line Diagram). Bus-Coupler 1 no.FP 125 A-50 kA MCCB-FROH with cable spreader, Manual, with integral LSI protection, 3x metering CTs, MFM(EM6459), R/G/A lamps (Location of breaker as per Single Line Diagram). Electro Mechanical Inter-Locaked Outgoing 5 no.- 63 A MCB TPN C Curve with R lamp 2 no.-63 A MCB TPN D Curve with R lamp LT Cables				
N.8	LT Cables				

	a) Supplying, installation, testing & commissioning PVC/XLPE armoured cable 3 core 4 sq mm copper conductor continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/CU. In case of exavation, In case of exavation, should be drawn through DWC pipe, All as per specifications/instructions of EIC/OIC. (quantity is tentative, payment as per actual)	Meter	50		-
	b) Supplying, erecting & terminating PVC/XLPE armoured cable 3½ core 70 sq mm aluminium conductor with continuous 8.35 sq mm (10 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL. In case of exavation, In case of exavation, should be drawn through DWC pipe, All as per specifications/instructions of EIC/OIC. (quantity is tentative, payment as per actual)	Meter	350		-
	c) Supplying, erecting & terminating PVC/XLPE armoured cable 4 core 6 sq mm copper conductor continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/CU. In case of exavation, In case of exavation, should be drawn through DWC pipe, All as per specifications/instructions of EIC/OIC. (quantity is tentative, payment as per actual)	Meter	40		-
End Terminations					
N.9	Supply, installation, Testing & Commissioning of end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC Sheathed/XLPE aluminium conductor cable of 1.1 KV grade as required. All as per specifications/instructions of EIC/OIC				
	a) 3 X 4 Sq.mm. (19 mm).	Each	6		-
	b) 3.5 X 70 Sq.mm. (38 mm).	Each	2		-
	c) 4 X 4 Sq.mm. (19 mm).	Each	2		-
	c) 4 X 6 Sq.mm. (19 mm).	Each	4		-
Floor Raceway, Junction Box & Covers					
N.10	Supply, installation, testing and commissioning of Under floor GI Race Ways with cover of below suitable sizes 100 X 100 X 38 MM All as per specifications/instructions of EIC/OIC	Meter	20		-
N.11	Supply, installation, testing and commissioning of GI JUNCTION BOX with cover of below suitable sizes. 100 X 100 X 50 MM All as per specifications/instructions of EIC/OIC.	Each	2		-
Point wiring					
N.12	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. All as per specifications/instructions of EIC/OIC. All as per specifications/instructions of EIC/OIC.	Point	60		-
N.13	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required. All as per specifications/instructions of EIC/OIC.	Metre	250		-
N.14	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire. All as per specifications/instructions of EIC/OIC	Metre	100		-
N.15	Supply, installation, testing and commissioning of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduits wherever required. 25 mm. All as per specifications/instructions of EIC/OIC.	Metre	100		-
Switches, Sockets & Accessories					

N.16	Supply ,Installation,Testing & Commisioning of following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. All as per specifications/instructions of EIC/OIC				
	a) 5/6 amps switch	Each	50		-
	b) 15/16 amp switch	Each	20		-
	c) 3 pin 5/6 amp socket outlet	Each	20		-
	d) 6 pin 15/16 amp socket outlet	Each	20		-
N.17	Supply ,Installation,Testing & Commisioning of following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. All as per specifications/instructions of EIC/OIC.				
	a) 1 or 2 Module (75mmX75mm)	Each	5		-
	b) 4 Module (125mmX75mm)	Each	40		-
	c) 8 Module (125mmX125mm)	Each	10		-
N.18	Supply ,Installation,Testing & Commisioning of modular blanking plate on the existing modular plate & switch box excluding modular plate as required. All as per specifications/instructions of EIC/OIC.	Each	15		-
N.19	Supply ,Installation,Testing & Commisioning of Anchor type fastener Fan hook, with 2 Nos of 10 mm dia x 75 mm long with necessary materials for Ceiling Fan (wherever required).All as per specifications/instructions of EIC/OIC.	Each	5		-
N.20	Supply ,Installation,Testing & Commisioning of Fan hook of 10 mm. M.S. round bar grouted in RCC slab with making the site as original. All as per specifications/instructions of EIC/OIC.	Each	5		-
N.21	Supply ,Installation,Testing & Commisioning of 'B' grade G.I.pipe/M.S. pipe down rod duly painted for fan complete erected with PVC two core flexible cable 24/0.2 mm copper PVC wire. All as per specifications/instructions of EIC/OIC.	Each	5		-
N.22	Supply ,Installation,Testing & Commisioning of electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board. All as per specifications/instructions of EIC/OIC.	Each	5		-
N.23	Supply ,Installation,Testing & Commisioning of regular/ standard model Ceiling fan of 1200 mm. sweep complete erected in position as per specification no. FG-FN/CF.All as per specifications/instructions of EIC/OIC	Each	5		-
N.24	Supply ,Installation,Testing & Commisioning of fresh air cum Exhaust fan of light duty 250 V A.C. 50 cycles 300mm. 1400 RPM rust proof body & blades, wire mesh, duly erected in an approved manner and marking Sr. No. and date of erection. All as per specifications/instructions of EIC/OIC.	Each	5		-
Distribution Boards and accessories					
N.25	Supply ,Installation,Testing & Commisioning of following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess,complete with tinned copper bus bar, neutral bus bar, earth bar,din bar, interconnections, powder painted including earthing etc.as required. (But without MCB/RCCB/Isolator) 12 way, Double door. All as per specifications/instructions of EIC/OIC	Each	1		-
N.26	Supply ,Installation,Testing & Commisioning of following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator). All as per specifications/instructions of EIC/OIC.				
	a) 4 way (4 + 12), Double door	Each	1		-
	b) 6 way (4 + 18), Double door	Each	1		-
N.27	Supply ,Installation,Testing & Commisioning of 5 amps to 32 amps rating, 240/415 volts, "C"curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections,Testing and commissioning etc. as required.All as per specifications/instructions of EIC/OIC.				
	a) Single pole	Each	50		-

	b) Triple pole	Each	2		-
	c) Triple pole and neutral	Each	1		-
N.28	Supply, installation, testing and commissioning of TPN MCB 40A to 63A, C Series in provided Distribution board as per specification No.SW-SWR/MCB. All as per specifications/instructions of EIC/OIC.	Each	2		-
N.29	Supply, Installation, Testing & Commissioning of single pole blanking plate in the existing DB complete etc. as required. All as per specifications/instructions of EIC/OIC.	Each	10		-
N.30	Supply, Installation, Testing & Commissioning of following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. All as per specifications/instructions of EIC/OIC.				
	a) 25 Amp	Each	2		-
	b) 40 Amp	Each	2		-
N.31	Supply, Installation, Testing & Commissioning of TP sheet steel enclosure on surface/ recess along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required. All as per specifications/instructions of EIC/OIC.	Each	2		-
Internal Lighting Fixtures and its accessories					
N.32	Supply, Installation, Testing & Commissioning of LED Circular shaped 12 Watt or equivalent Premium Range Surfaced Downlighter having pressure die-cast aluminium housing with white front bottom frame suitable to following features. -In built electronic LED pre wired driver, -Luminaire shall be with special translucent -High diffuser>85%, -Provision of Spring loaded Mounting clips. -Opal Translucent cover/Poly Carbonate reflector. -CRI>80, THD<10%. -High Efficacy greater than or equal to 100 lm/watt, -Provide Uniform low glare lighting non yellowing/PMMA lens for better light distribution, -Operatable voltage - 220-240 V, 50 Hz, PF>0.9, -Colour Temperature greater than or equal to 4000-5000K.	Each	5		-
N.33	Supply, Installation, Testing & Commissioning of LED Circular shaped 17 Watt or equivalent Premium Range Surfaced Downlighter having pressure die-cast aluminium housing with white front bottom frame suitable to following features. - Luminaires suitable to Aluminium metal grid ceiling or Gypsum or POP, -In built electronic LED pre wired driver, -Luminaire shall be with special translucent -High diffuser>85%, -Provision of Spring loaded Mounting clips. -Opal Translucent cover/Poly Carbonate reflector. -CRI>80, THD<10%. -High Efficacy greater than or equal to 100 lm/watt, -Provide Uniform low glare lighting non yellowing/PMMA lens for better light distribution, -Operatable voltage - 220-240 V, 50 Hz, PF>0.9, -Colour Temperature greater than or equal to 4000-5000K.	Each	5		-

N.34	Supply, Installation, Testing & Commissioning of LED Circular shaped 24 Watt or equivalent Premium Range Downlighter having pressure die-cast aluminium housing with white front bottom frame suitable to following features. - Luminaires suitable to Aluminium metal grid ceiling - In built electronic LED pre wired driver, - Luminaire shall be with special translucent - High Surge Protection:-2.5KV. - IP-65 ,Outdoor Application Mounted on Curvature Gate at height 7 meter from FFL. - High diffuser>85%, - Provision of Spring loaded Mounting clips. - Opal Translucent cover/Poly Carbonate reflector. - CRI>80, THD<10%. - High Efficacy greater than or equal to 100 lm/watt, - Provide Uniform low glare lighting non yellowing/PMMA lens for better light distribution, - Operatable voltage - 220-240 V, 50 Hz, PF>0.9, - Colour Temperature greater than or equal to 4000-5000K.	Each	5		-
LV SYSTEM WORK					
Telephone System					
N.35	Supply, installation, Testing & Commissioning of Junction Box (IDF) suitable for 20 pairs as per specification no. WG-TW. All as per specifications/instructions of EIC/OIC.	Each	1		-
N.36	Supply, installation, Testing & Commissioning of Krone module of 10 pairs as per specification no. WG-TW. All as per specifications/instructions of EIC/OIC.	Each	2		-
N.37	Supplying, installation, testing & commissioning approved type Push Button Analogue Telephone Instrument with caller ID for desk top/ wall mount unit as per specification in approved manner. All as per specifications/instructions of EIC/OIC.	Each	10		-
N.38	Supply, installation, Testing & Commissioning of following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. Telephone socket outlet. All as per specifications/instructions of EIC/OIC.	Each	10		-
N.39	Supply, installation, Testing & Commissioning of following pair 0.5 mm dia. FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required. 2 Pair. All as per specifications/instructions of EIC/OIC.	Meter	200		-
N.40	Supply, installation, Testing & Commissioning of Telephone Cable 20 pair with 0.5 mm dia. laid in provided PVC casing / conduit as per specification No. WG-TW	Meter	500		-
N.41	Supply, installation, Testing & Commissioning of of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same case of recessed conduit as required. 25mm (for Telephone, DATA and CCTV)	Meter	50		-
N.42	Supply, installation, Testing & Commissioning of of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. 90 mm dia (OD-90 mm & ID-76 mm nominal)	Meter	60		-
N.43	Supply, laying, inspection, testing and commissioning of network any other required purpose for smooth functioning of EPABX on ceiling/wall/shaft/underground through DWC pipe/trunk in gas desired as per instructions of Engineer-in-Charge, all as directed by Officer-in-Charge, ACTREC. All as per specifications/instructions of EIC/OIC.	Meter	1000		-
DATA Networking System					
N.44	Supply, installation, Testing & Commissioning of 24 port Patch Panel with tool-less keystone jacks in provided U Rack complete as per specification no. WG-NAS/PP. All as per specifications/instructions of EIC/OIC.	Each	1		-

N.45	Supply,installation,Testing & Commissioning of 1 meter length, UTP Patch cord of Cat 6 type in position as per specification No. WG-COC/PC. All as per specifications/instructions of EIC/OIC.	Each	5		-
N.46	Supply,installation,Testing & Commissioning of 3 meter length, UTP Patch cord of Cat 6 type in position as per specification No. WG-COC/PC. All as per specifications/instructions of EIC/OIC.	Each	5		-
N.47	Supplying, installing & testing UTP Connector (RJ-45) as per specification No. WG-NAS/UTPC. All as per specifications/instructions of EIC/OIC.	Each	5		-
N.48	Supplying, installation and testing of D-Link type connector box complete with RJ-45 connector including concealed metal box/ surface PVC Box, modular plate, punching, identifying, complete as required. All as per specifications/instructions of EIC/OIC.	Each	10		-
N.49	Supply,installation,Testing & Commissioning of of UTP 23 AWG 4 pair CAT 6 LAN Cable to TIA/EIA 568.B.2.1 in the existing surface/ recessed steel/ PVC conduit as required. (For DATA and CCTV). All as per specifications/instructions of EIC/OIC.	Each	200		-
N.50	Installation of following accessories to ensure end termination functional. Supply, Installation, testing and commissioning of Duplex Single mode Patch Cord 3mtr. (SC-LC) Commscope Systimax. (6 Nos) .Supply, Installation, testing and commissioning of Duplex Single mode Patch Cord 3mtr. (SC-LC) Commscope Systimax. (2 Nos). Supply, Installation, testing and commissioning of Sliding 19" Rack Mount LIU 12 Ports for SC adaptors(empty) (12+12) Nos. Supply, installation, testing and commissioning of SC Fiber Pig Tails (Systimax)(6+6 Nos). Supply, installation, testing and commissioning of SC Duplex Adapter Tera Speed,Blue Commscope, SFA-SC02-BL. (2 Nos.). Supply, installation, testing and commissioning of Splice protector pack of 50. 1 No.Supply and installation of Fiber protection tube. 1 No. All as per specifications/instructions of EIC/OIC.00	Each	1		-
N.51	Supply, Installation, Testing & Commissioning of Card / Finger Print Reader with 500 templates, 30000 transactions, mono LCD screen, RS485 / RS232 / Ethernet communication, card / finger print registration, web server support, 230V AC UPS supply, 12V Dc internally derived power supply through included adapter, less than 2 second enrollment time.	Each	1		-
N.52	Supply, Installation, Testing & Commissioning, registration of first time biometric templates & issue of swipe card in a plastic case & ribbon data for employees	Each	10		-
BOOM BARREIR WORKS					
N.53	Supply, installation, testing and commissioning of Automatic and manual operated entran gate Boom Barrier comprises follwing details -Auto High Spee High Barrier Gate, -Opening/closing times: 0.9-3s -Manual release in case of power failure. -Three station push button -Battery backup facility -Length-6 meter, -Service life: Above 5 million time, -Made by special steel plate, -Double built-in LED flashing light. -24 VDC motor, with control unit in box -Rated power: 180W, -2 Coat of Epoxy powder coated and 1 Coat of PU paint with DFT 100 microns. -The Barrier can be controlled by programmable logic controller (PLC), which can be programmed or controlled centrally.	Each	2		-
N.54	Exavation of all kind of soil as per required 900 mm below ground level including blasting & chiseling, using compressor, dewatering, back filling, reinstatement after work completion, if necessary disposal of excess earth within the radius of 500 Mtrs etc, stacking of rocks at selected places as per instruction of EIC. All as per specifications/instructions of EIC/OIC.	cu.m	100		-

N.55	Supply,Installation&Testing,Commissioning of Class A GI Conduit as per IS1239 standard size 100 mm with required elbows, bends, tees, socket, unions, junctions complete with all respect with saddling for looping with existing fire zone, all as per instructions,specifications and as directed by EIC/OIC. (The quantity given is tentative and will vary as per actual requirement and payment will be as per actual)	Meter	100		-
TOTAL OF N ELECTRICAL DATA TELEPHONE & BOOM BARRIER WORK					-

**Sub:-Construction of new Entrance Gate at North East corner of ACTREC premises, at
ACTREC**

SUMMARY

Name of Agency		0
Item No.	Description	Amount Rs.
A	EARTHWORK	-0
B	CONCRETE WORK	-0
C	MASONARY WORKS	-0
D	PLASTERING & FINISHING WORK	-0
E	JOINERY WORKS	-0
F	STRUCTURAL STEEL & ALUMINIUM WORK	-0
G	FLOORING WORK	-0
H	ROOFING AND WATERPROOFING	-0
I	ROAD WORK	-0
J	DISMANTLING AND DEMOLISHING WORK	-0
K	LANDSCAPE WORK	-0
L	ARCHITECTURAL SERVICES FOR STATUTARY APPROVALS	-0
M	PLUMBING WORKS (INTERNAL & EXTERNAL)	-0
N	ELECTRICAL DATA TELEPHONE & BOOM BARRIER WORK	-0
TOTAL		-0
Add CGST @		-0
Add SGST @		-0
GRAND TOTAL WITH TAXES		-0