

# MALAVIYA INSTITUTE OF TECHNOLOGY, JAIPUR

## ESTATE SECTION

### Renovation work of Fluid mechanics lab in Civil Engineering Department at MNIT, Jaipur.

#### PART -I (CIVIL)

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sum on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed :				
1.1	All kinds of soil	100 Sqm	100.00		
2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor,etc., up to floor five level, excluding the cost of centering, shuttering and finishing :				
2.1	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	15.00		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level :				
3.1	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	Cum	40.00		
4	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts, beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
4.1	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	Cum	12.00		
5	Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete.				
5.1	Suspended floors, roofs, landings, balconies and access platform.	Sqm	60.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
6.1	Thermo-Mechanically Treated bars.	Kg	1200.00		
7	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
7.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	35.00		
8	Brick work with F.P.S. bricks of class designation 75 in super structure above plinth level upto floor V level in all shapes and sizes in :				
8.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	30.00		
9	Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth level upto floor V level.				
9.1	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	65.00		
10	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :				
10.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	10.00		
11	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels.				
11.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble.				
11.1.1	Area of slab over 0.50 sum.	Sqm	20.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
12	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels.				
12.1	Granite of any colour and shade				
12.1.1	Area of slab over 0.50 sum.	Sqm	25.00		
13	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters :				
13.1	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm	20.00		
14	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) Over item no. 9.20 and 9.21.	Sqm	20.00		
15	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	Kg	300.00		
16	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size, with top and bottom rail of T-iron 40x40x6mm, with 40mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	Sqm	12.00		
17	Steel work in built up sections/ framed work including cutting , hoisting fixing in position and applying a priming coat of approved steel primer, using structural steel etc.as required.				
17.1	In gratings,frame,guard bar, ladder, railings, brackets,gates & similar works	kg	300.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
18	Providing and fixing welded mesh/expanded metal mesh in frame work, flat iron beading 20x3mm including top cross laps inside and out sides welding, iron bolts, screws, clips etc. complete (excluding frame work) of size.				
18.1	Welded mesh 25 mm x 25 mm x 2.1 mm	Sqm.	200.00		
19	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
19.1	25 mm thick.	Sqm	500.00		
20	Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	25.00		
21	Providing and fixing 10mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding and joints filled with acid and/or alkali resisting cement as per IS : 4457 complete as per the direction of Engineer-in-Charge.				
	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand).				
21.1	Acid and alkali resistant tile.	Sqm	80.00		
22	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sum including pointing in white cement mixed with pigment of matching shade complete.	Sqm	60.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
23	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc. complete.	Sqm	20.00		
24	Providing and laying matt finish /double charge / full body vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.				
24.1	Size of Tile 600x600 mm	Sqm	250.00		
25	Providing and fixing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections				
	( galvanized @ 120gsm/Sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet, spaced at				
	1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick(minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm				
	and secondary cross T of length 600mm and size 24x25mm made of 0.30 mm thick(minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle				
	of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures,				
	smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6x mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4mm GI				
	adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and				

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
	as directed by Engineer-in-charge.12.52.1 GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5mm thick with 8mmdrop; made of G I sheet having galvanizing of 100 gms/Sqm(both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.				
25.1	GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5mm thick with 8mmdrop; made of GI sheet having galvanizing of 100 gms/Sqm(both sides inclusive) and 20% perforation area with 1.8mmdia holes and having NRC (Noise Reduction Coefficient ) of0.5, electro statically polyester powder coated of thickness60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece.	Sqm	50.00		
26	20 mm cement plaster of mix :				
26.1	1:6 (1 cement : 6 fine sand)	Sqm	50.00		
27	12 mm cement plaster:				
27.1	1:6 (1 cement:6 fine sand)	Sqm	120.00		
28	15 mm cement plaster on the rough side of single or half brick wall of mix:				
28.1	1:6 (1 cement:6 fine sand)	Sqm	120.00		
29	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	2000.00		
30	Finishing walls with Acrylic Smooth exterior paint of required shade :				
30.1	New work (Two or more coat applied @ 1.67 ltr/10 Sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 Sqm).	Sqm	200.00		
31	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
31.1	Two or more coats on new work.	Sqm	200.00		
32	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade including all scaffolding:				
32.1	Two or more coats on new work including prepartion of base with primer, putty, lippy etc complete in all respect.	Sqm	2000.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
33	Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5 sq. meters and under including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete including disposal of rubbish to the dumping ground within 50Metres lead :				
33.1	With cement mortar 1:4 (1 cement : 4 fine sand).	Sqm	200.00		
34	Renewing glass panes, with putty and nails wherever necessary:				
34.1	Float glass panes of thickness 4 mm	Sqm	100.00		
35	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 Metres lead as per direction of Engineer-in-charge.				
35.1	1:4:8 or leaner mix	Cum	40.00		
36	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 Metres lead as per direction of Engineer-in-charge.	Cum	2.00		
37	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, eyond 50 m initial lead, for all leads including all lifts involved.	Cum	40.00		
38	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 Metres lead as per direction of Engineer-in-charge.				
38.1	In cement mortar	Cum	15.00		
39	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 Metres lead:				
39.1	Of area 3 sq. Metres and below	Each	5.00		
39.2	Of area beyond 3 sq. Metres	Each	5.00		
40	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 Metres lead.				
40.1	For thickness of tiles 10 mm to 25 mm	Sqm	60.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
41	Dismantling roofing including ridges, hips valleys and gutters etc., and stacking the material within 50 Metres lead of:				
41.1	Asbestos sheet	Sqm	50.00		
42	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 Metres lead:				
42.1	Thickness upto 40 mm	Sqm	100.00		
43	Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unserviceable materials within 50 Metres lead.	Each	3.00		
44	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 Metres lead.	Sqm	60.00		
45	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
45.1	W.C. pan with ISI marked white solid plastic seat and lid	Each	3.00		
46	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	3.00		
47	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :				
47.1	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	Each	3.00		
48	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				



S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
48.1	Semi rigid pipe				
48.1.1	32 mm dia	Each	6.00		
49	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
49.1	Rectangular shape 453x357 mm	Each	3.00		
50	Providing and fixing M.S. stays and clamps for sand cast iron/centrifugally cast (spun) iron pipes of diameter :				
50.1	75 mm	Each	12.00		
51	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps i/c making good the walls etc. concealed pipe including painting with anticorrosive bitumastic paint, cutting chases and making good the wall				
51.1	15 mm dia nominal bore	Metre	30.00		
51.2	20mm dia nominal bore	Metre	100.00		
52	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
52.1	15 mm nominal bore	Each	1.00		
53	Providing and fixing uplasticised PVC connection pipe with brass unions :				
53.1	45 cm length				
53.1.1	15 mm nominal bore	Each	6.00		
54	Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws including excavation, refilling the earth or cutting of wall and making good the same complete wherever required :				
54.1	15 mm nominal bore.	Each	5.00		
55	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931				
55.1	15 mm nominal bore	Each	3.00		
56	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
56.1	15 mm nominal bore.	Each	20.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
57	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work :				
57.1	15 mm dia. nominal bore	Metre	40.00		
58	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				
58.1	25 to 40 mm nominal bore	Each	2.00		
59	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore .				
59.1	15mm nominal bore	Nos.	15.00		
60	P&F rigid PVC Pipe (IS:4985 mark) class II/ (4 Kg. /Cm <sup>2</sup> .) approved quality /make including joining the pipe with solvent cement rubber ring and lubricant.				
60.1	110 mm dia	Mtr	150.00		
60.1	75 mm dia	Mtr	20.00		
61	Plain Tee				
61.1	75mm dia	Each	2.00		
61.2	110mm dia	Each	12.00		
62	Door Tee				
62.1	75mm dia	Each	2.00		
62.2	110mm dia	Each	2.00		
63	Bend 87 .5				
63.1	75mm dia	Each	2.00		
63.2	110mm dia	Each	10.00		
64	Door Bend (Left & Right)				
64.1	75mm dia	Each	1.00		
64.2	110mm dia	Each	5.00		
65	Vent Cowel				
65.1	75mm dia	Each	2.00		
65.2	110mm dia	Each	2.00		
66	Plain floor trap				
66.1	110mm dia	Each	15.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
67	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for separately) :				
67.1	For fixed portion.				
67.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	100.00		
68	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (Fittings shall be paid for separately).				
68.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	50.00		
65	Providing and fixing 12mm thick Pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade 1 Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				
65.1	Pre-laminated particle board with decorative lamination on both sides.	Sqm	10.00		
66	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) :				
66.1	With float glass panes of 5.50 mm thickness	Sqm	20.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
67	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.				
67.1	With stainless steel cover plate	Each	3.00		
68	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
68.1	Upto 5mm depth and 5 mm width	Metre	20.00		
69	Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. Complete as per direction of Engineer-in-charge				
69.1	Powder coated minimum thickness 50 micron aluminium	Each	3.00		
71	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	Each	3.00		
72	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 ltr/sum. by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/ltr and viscosity 70 - 160 cps. over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete.				
	The vital physical and chemical parameters of the membrane shall be : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :				
72.1	3 mm thick	Sqm	100.00		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
73	Removing existing door of area not more than 3.00 Sqm and refixing the same attending necessary repairs using new hold fasts/screws etc., as directed.	Each	5.00		
74	Dismantling C.I. or asbestos or G.I. pipe with fittings and clamps including stacking the material within 50 metres lead :				
74.1	75 to 80 mm dia pipe	Metre	40.00		
<b>TOTAL of PART I</b>					
<b>PART -II ( ELECTRICAL )</b>					
1	Wiring of light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq. mm nominal size FR PVC insulated unsheathed flexible copper conductor 1.1 kV grade and 1.5 sq. mm nominal size FR PVC insulated unsheathed flexible copper earth conductor 1.1 kV grade (IS:694) of approved make in surface / recessed ISI marked medium duty PVC conduit & it's accessories, round tiles, Hot Dipped Galvanized Modular Box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A Modular switch, Modular plate with grid plate, screws, making connections, testing etc. as required. <b>(Make -BSR Group-1)</b>				
1.1	Medium point (up to 6 mtr.)	P. point	50.0		
1.2	Long point (up to 10 mtr..)	P. point	35.0		
2	Supplying and drawing FR PVC insulated & unsheathed flexible copper conductor ISI marked (IS:694) of 1.1 kV grade and approved make in existing surface or recessed conduit/casing capping including making connections etc. as required. <b>(Make RR Kabel , National, Finolex, Polycab)</b>				
2.1	3x 1.5 sq.mm	Mtr.	100.00		
2.2	2 x 2.5 sq. mm. + 1x1.5sqmm	Mtr.	500.00		
2.3	2 x 4.0 sq. mm. + 1 x 2.5 sq. mm.	Mtr.	400.00		
2.4	2 x 6.0 sq. mm. + 1 x 2.5 sq. mm.	Mtr.	75.00		
3	S&F following sizes (dia.) of ISI marked medium duty PVC conduit along with accessories in surface / recessed using saddles, clamps, fastener as required including cutting the wall, covering conduit and making good the same as required. <b>(Make: AKG, BEC, Precision, Polypack, Polycab)</b>				
3.1	20 mm	R. mtr.	300.0		
3.2	25 mm	R. mtr.	150.0		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
4	P/Laying P.V.C. / XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor of IS:1554 P-I / IS :7098 P - I of Group 1 of approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size. (Make: <b>Gloster, Finolex, Rallison, Polycab</b> )				
4.1	<b>6.0 Sq.mm</b>				
	4 core	Mtr.	150.0		
4.2	<b>25.0 Sq.mm</b>				
	4 core	Mtr.	125.0		
4.3	<b>70.0 Sq.mm</b>				
	3.5 core	Mtr.	125.0		
5	P&F Recessed/ Surface mounting heavy duty horizontal type sheet steel Distribution board phophatised/ powder painted complete with suitable rating insulated copper bus bar, shorting link , neutral link, earth link and din bar, masking sheet, conforming to IS13032 & IS8623 including making internal DB terminations with copper lugs , testing etc. as required. (Make: <b>Siemens, GE ( G2000), ABB, Legrand (Ekinoxe / Lexic)</b> )				
5.1	<b>Double door (Three phase)</b>				
	6 Way	Each	6.0		
6	P&F 240/415 V AC MCB with positive isolation of breaking capacity not less than 10 KA (B/ C/ D tripping characteristic) ISI marked IS 8828(1996)]/ conforming to IEC 60898 in existing board/sheets including making connections with lugs, testing etc. as required. (Make: <b>Siemens, GE ( G2000), ABB, Legrand (Ekinoxe / Lexic)</b> )				
6.1	<b>Single pole MCB</b>				
	6 A to 32 A rating	Each	120.0		
6.2	<b>Triple pole MCB</b>				
	40 A 63 A rating	Each	10.0		
7	P&F 240/415 V isolator conforming to IS:13947-III/ IEC 60947-3 on existing board / sheet including making connections with lugs , testing etc. as required. (Make: <b>Siemens, GE ( G2000), ABB, Legrand (Ekinoxe / Lexic)</b> )				
7.1	<b>Four pole Isolator</b>				
	30 A / 40 A rating	Each	2.0		
7.2	63 A rating	Each	4.0		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
8	P&F 240/415 V Residual current circuit breaker conforming to IS:12640:1988/ IEC 61008 on existing board/sheet including making connections with lugs, testing etc. as required ( <b>Make: Siemens, GE (G2000), ABB, Legrand (Ekinoxe / Lexic)</b> )				
8.1	<b>Two pole 30 mA sensitivity</b>				
	25 A rating	Each	18.0		
9	P&F metal clad industrial plug top & socket unit with pin and sleeve type contact on porcelain/ bakelite base in sheet steel enclosure (without MCB) including making connections with lugs, testing etc.as required.( <b>Make: Siemens, L&amp;T(Hager), GE, Legrand, Schneider, ABB</b> )				
9.1	<b>Single / Double Pole (Three pin)</b>				
	20 A	Each	35.0		
9.2	<b>Three / Four pole (Five pin)</b>				
	30A-32A	Each	10.0		
10	P & F following modular accessories made out of unbreakable and fire retardant poly carbonate with silver contacts including making connections testing etc. as required. ( <b>Make: Legrand ( Myrius ), ABB ( Classic Luminia ), Anchor ( Wood ), Schneider ( Opale ), Philips, Havell's ( Crabtree )</b> )				
10.1	6 A one way switch	Each	10.0		
10.2	16 A one way switch	Each	50.0		
10.3	6 A 3 pin shuttered socket	Each	10.0		
10.4	16 A 6 pin shuttered socket	Each	50.0		
10.5	RJ-11 telephone jack single two line	Each	10.0		
10.6	RJ-45 computer jack with shutter	Each	30.0		
11	P & F following size mounting grid plates with cover plates. ( <b>Make: Legrand ( Myrius ), ABB ( Classic Luminia ), Anchor ( Wood ), Schneider ( Opale ), Philips, Havell's ( Crabtree )</b> )				
	1/2 Module	Each	2.0		
11.1	3 Module	Each	50.0		
11.2	5/6 Module	Each	20.0		
12	P & F following size hot dip galvanized M.S. box with earthing terminal in recess/ surface suitable for modular accessories as required. ( <b>Make: Legrand ( Myrius ), ABB ( Classic Luminia ), Anchor ( Wood ), Schneider ( Opale ), Philips, Havell's ( Crabtree )</b> )				
	1-2 Module	Each	7.0		
12.1	3 Module	Each	50.0		
12.2	5-6 Module	Each	20.0		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
13	Plate Earthing as per IS:3043 with copper Earth plate of size 600mm x 600mm x 3.0mm by embodying 3 to 4 mtr. below the ground level with 25 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer, nipple ,wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size300mm x 300mm complete with alternate layers of salt and coke/charcoal, testing of earth resistance as required.	Set	2.0		
14	Plate Earthing as per IS:3043 with copper Earth plate of size 300mm x 300mm x 3.0mm by embodying 3 to 4 mtr. below the ground level with 25 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer, nipple ,wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300mm complete with alternate layers of salt and coke/charcoal, testing of earth resistance as required.	Set	2.0		
15	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.				
15.1	6 SWG copper Wire	Mtr.	50.0		
15.2	20mm x 3mm copper strip	Mtr.	50.0		
15.3	20mm x 3mm G.I. ( Hot Dipped ) Strip	Mtr.	50.0		
16	SITC of wall/ free standing floor mounted dust and vermin proof compartmentalised cubical panel made out of CRCA sheet , required hardware ,duly treated for derusting in 7 tank process with dephosphating and with powder coating on both side of panel in desired shade The panel having PU/ Neoprene rubber gasket of not less than 3mm thickness , separate detachable gland plate M.S. base channel ,hinged door with locking arrangement for equipment/switchgear . Thickness of sheet shall not be less than 1.6 mm up to 600 mm length / width of any compartment and be of 2.0 mm above 600 mm. Load bearing structure shall be of 2.0 mm thick sheet supported by base M.S. channel if required . Side walls and cable alley compartments having bolted type doors with / without detachable extension type structure. (only outer area on all sides shall be measured & panel to be fabricated from CPRI approved fabricator)	SQ.Mtr.	6.0		



S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
17	Supplying and fixing of Aluminium / Copper bus bar by means of SMC / DMC type insulator, high tensile nuts and bolts spring washers in existing panel including bending , cutting in required shape and size and colour coding with heat shrinkable PVC sleeves.				
17.1	Electrolytic grade Aluminium bus bar	Kg.	6.0		
18	P & F of Multy function meter with LCD/ LED display capable of measuring electrical parameters like V, I, F, PF, KW, Kva, Kvar, Kwh, Kvah, Kvarh display with 1A/5A CT input for LV/ HV network, RS 485 communication port etc. complete in all respect. ( <b>Make : HPL , L&amp;T, Schneider, Secure, AE, Ravchem RPG, Neptune</b> )	Each	1.0		
19	SF of Current Transformer , with all necessary support in existing panel including connection etc. as required . ( <b>Make: C&amp;S, L&amp;T, Schneider, Siemens</b> )				
19.1	up to 150 / 5 Ratio , 5 VA , class 1 accuracy	Each	3.0		
20	SF of selector switch of 10 A for voltmeter (4 position ) including making connection etc. as required . ( <b>Make: GE, Siemens, C&amp;S, HPL, L&amp;T ( salzer ), ABB, Schneider</b> )	Each	2.0		
21	SF of CT linked selector switch of 10 A for Ampere meter (4 position ) including making connection etc. as required .	Each	2.0		
22	SF of 110/220 V, LED (22.5 mm dia ) Indicating lamp with integral circuit, terminal block, including connection etc. as required. ( <b>Make: Siemens, C&amp;S, GE, ESBBE ( L&amp;T ), ABB, Schneider</b> )				
22.1	Red/yellow/Green colour	Each	3.0		
22.2	Blue colour	Each	1.0		
23	Supplying and making one end termination with heavy duty single compression brass gland SIBG type, heavy duty aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size.				
23.1	4 x 25.0 sq.mm	Set	4.0		
23.2	3.5 x 70.0 sq.mm	Set	2.0		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
24	SITC of quick make and quick break 3 pole current limiting MCCB having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings and conforming to IS 60947-2 / IEC 60947-2 with front face and centralised adjustable, line load interchangeability, having positive isolation capability, provision for UVR , shunt trip , earth fault trip, push ( test ) to trip, including making connections with lugs / spreaders, etc. as required. <b>(Make: ABB, Siemens, GE, L&amp;T, Legrand)</b>				
24.1	up to 100 Amp , 25 kA, adjustable O/L & fixed S/C setting, Ics = 100 % Icu	Each	4.0		
24.2	250 Amp , 35 kA, adjustable O/L & fixed S/C setting, Ics = 100 % Icu	Each	1.0		
25	Supply , Drawing and Testing of 4 pair, 24 AWG UTP Cat 6 Cable as per latest ammendments of TIA /EIA 568 B.2-1 Specifications in existing MS/PVC Conduits including making connections to Information outlets and Patch Panels with ferruling at both ends for identification with necessary tools for punching, stripping, crimping and testing required. <b>(Make: Amp, Avaya, penduit, Legrand)</b>	Mtr.	400.0		
26	Supply and Installation of Information outlets made of high impact plastic body ABS FR Grade with spring loaded collapsible shutters in jack Recess, suitable for Cat 6 application complying to latest ammendments EIA/ TIA 568 B.2-1 Specifications in existing modular /MS Boxes along with necessary connections as required. <b>(Make: Amp, Avaya, penduit, Legrand)</b>	Each	30.0		
27	Supplying and drawing PVC/ Polythene insulated and PVC sheathed unarmoured/ armoured telephone cable with 0.5 mm dia. Tinned / annealed copper conductor taped & conforming to ITD specification S/WS -113C of approved make in existing surface or recessed conduit/casing capping. <b>(Make: Delton, Finolex, National, RR Kabel, Polycab, Havell's)</b>				
27.1	Unarmoured Telephone cable in existing surface or recessed conduit/casing capping.				
	2 pair	Mtr.	100.0		
28	P & F extra down rod of 15 mm dia . ERW (Electrical resistance welded ) of 1.6mm nominal thick medium duty steel pipe including cutting, threading, drilling, fixing quarter pin etc as reqd.	Mtr.	10.0		
29	P & F of iron hook/clamp 40 mm x 5 mm M.S. flat complete with nut & bolt etc. as required.	Each	40.0		

S. No.	DESCRIPTION	UNITS	QTY	Rates in Rs. (words & figures)	AMOUNT
30	P & F heavy duty, Double ball bearing and with sturdy mesh guard; Aluminium alloy one piece blade wall mounting oscillating type air circulator conforming to IS:2997, including fixing with anchor bolts, regulator making connection testing etc. as required.				
30.1	450 mm sweep With three speed regulator	Each	8.0		
31	P & F industrial fluorescent tube fitting with reflector fabricated from CRCA sheet and finished with powder coating / vitreous enamelled complete with accessories (Low Loss Copper Choke, starter, starter seat) / Electronic Choke with terminal block duly prewired with copper conductor including making connection, testing etc. as required.( without tube). <b>(Make: Philips, Bajaj, Surya, Havell's Model as given BSR)</b>				
31.1	<b>With powder coated reflector</b> 2 X 28 Watts with EB	Each	25		
32	P & F Fluorscent tube rod in existing fixtures as required, minimum 5 STAR rating. <b>(Make: Philips, Bajaj, Surya, Havell's)</b>				
32.1	<b>T5 lamps</b> 28 Watts	Each	25		
33	P & F of IP20 LED ceiling / recessed / suspended mounting light fixture made from CRCA sheet steel housing, high purity / transmissivity diffuser for uniform light distribution. High efficiency driver electronics having efficiency > 85% and in compliance to IEC standards (Integral with light fixture). Power Consumption of 40W / 50W / 60W ~ 3000/3300/4200 lumens, System lumen efficacy of 70-80 lm/Watt output suitable for 2x36WFTL / 2x36W CFL / 3x36W CFL light fixtures, life time of 50,000 burning hours with 70% initial lumens maintained. CCT 3000°K, 4000°K & 6000°K. Fixtures shall be CE compliance				
33.1	<b>Recessed Mounting</b> 48W LED light fixture 2'x2' with acrylic / prismatic front cover.	Each	14		
34	P&F of Heavy duty capacitor start, Double ball bearing 900/1400 RPM single phase ISI marked Exhaust fan,IS:2312 marked in existing opening including making connections testing etc. as required.				
34.1	450 mm sweep(900/1400 RPM)	Each	4.0		

**TOTAL of PART II**

**TOTAL PART I + PART II**

Seal & Signature of Contractor

Address & Phone No.