









20.03.20	26.03.2014									
<b>Bill of quantities / Schedule of works for Electrical installation work with Estimation to be carried out for Proposed Bio-incubator at IITM Research Park and IITM, Chennai.</b>										
13.00.00	<b>JUNCTION BOXES</b>									
13.01.00	Supplying, erecting 14 G thick Junction boxes <b>without cover</b> height to suit as per site conditions. The Junction boxes shall be powder coated type and fixed flush with the wall / floor	50	25	75	Sq.Ft.					
13.02.00	Supplying, erecting <b>SS cover for above item</b>	15	5	20	Sq.Ft.					
14.00.00	<b>FLOOR CUTTING</b>									
14.01.00	Cutting, breaking and removing debaris and plastering with chicken mesh for floor raceways									
14.01.01	0" - 6"	50		50	MTS.					
14.01.02	6.1" - 12 "	RO			MTS.					
14.01.03	12.1" - 18 "	RO			MTS.					
15.00.00	<b>EARTHING</b>									
15.01.00	Supplying, installing and connecting a Copper plate of size 600mm.x 600 mm.x 3 mm. at a depth of 3000 mm. in an earth pit of 700 x 700 x 3500 mm. filled with salt and charcoal mixed with sand in alternate layers 150 mm. each upto a height of 3000 mm. from bottom. Two copper flats of 25 x 6mm. shall be braced to this copper plate throughout the overlapping length with the copper plate and brought to the surface of the earthpit. This copper flat shall have provision for connecting wires of flats as the case may be. A suitable size of 40 mm. dia GI Pipe shall be provided upto the bottom of the earth pit. This GI Pipe shall have provision for watering through a funnel. A masonry structure shall be constructed to a depth of 450mm. and a heavy duty CI Cover shall be used to cover the pit. The cost of digging and back filling shall also be included. Sand, salt and charcoal are in the Contractor's scope. SERVER - 1No, UPS - 2 Nos EPABX - 1 No	4			4	Sets				
15.02.00	Supplying, installing and connecting a 2.5 Mtr. long 40mm. dia G.I. Pipe with holes drilled diametrically opposite to each other once every 150 mm. in an earth pit of 380 x 380 x 3500 mm. filled with salt and charcoal mixed with sand in alternate layers 150 mm each upto a height of 3000 mm. from bottom. The pipe shall have provision for watering through a funnel. It shall also have provision for connecting 50 x 6 mm. G.I. Flat on two sides. A masonry structure shall be constructed to a depth of 450 mm. and a heavy duty CI Cover shall be used to cover the pit. The cost of digging and back filling shall also be included. Sand, salt and charcoal are in the Contractor's scope.	RO	RO			Sets				
15.03.00	Supplying, laying & connecting 300mm long 25 x 6mm. GI flat with SMC / DMC Insulators in open fashion with necessary clamps, screws, etc. <u>as earth link</u>	2	1		3	Sets				
15.04.00	Supplying, laying & connecting 300mm long 25 x 3mm. Copper flat with SMC / DMC Insulators in open fashion with necessary clamps, screws, etc. <u>as earth link</u>	3			3	Sets				
15.05.00	Supplying, laying, connecting & commissioning 8 SWG bare enamelled copper wire with necessary clamps, screws etc. for earthing AC Units.	100	50		150	Mts				
15.06.00	Supplying, laying & connecting 16 Sq.mm. PVC Insulated copper conductor wires in PVCConduit open fashion with necessary clamps, screws, interlinks etc. for UPS Neutral	300			300	Mts				
15.07.00	Supplying, laying & connecting 6 Sq.mm. PVC Insulated copper conductor wires in PVCConduit open fashion with necessary clamps, screws, interlinks etc. for Server / EPABX	300			300	Mts				

20.03.20	26.03.2014									
<b>Bill of quantities / Schedule of works for Electrical installation work with Estimation to be carried out for Proposed Bio-incubator at IITM Research Park and IITM, Chennai.</b>										
16.00.00	<b>Cable Tray</b>									
16.01.00	Supplying, fabricating, erecting, connecting & commissioning of the Powder coated (ALUMINIUM COLOUR) Ladder Type Cable Trays with necessary Angle irons for cable supports and other allied fabrication works. Fixing to concrete surfaces shall be done with the help of expandable type anchor fasteners capable of bearing a weight of 500 Kgs. Fixing to brick walls shall be done with grouting. The distance between two supports shall be 600mm. The materials and labour for grouting, cable supports and other allied fabrication work shall be supplied by the Contractor at no extra cost.	100	20	120	Kgs					
17.00.00	<b>PVC FLEXIBLE HOSE</b>									
17.01.00	Supplying, laying, connecting & commissioning PVC flexible hose of the following sizes with necessary accessories and glands etc.									
17.01.01	25 mm. Dia	50	10	60	Mts					
17.01.02	32 mm. Dia	50	10	60	Mts					
18.00.00	<b>METALLIC HOSE</b>									
18.01.00	Supplying, laying, connecting & commissioning MS flexible hose of the following sizes with necessary accessories and glands etc.									
18.01.01	25 mm. Dia	RO			Mts					
18.01.02	32 mm. Dia	RO			Mts					
19.00.00	<b>Light Fittings</b>									
19.01.00	Supplying, fixing, connecting and commissioning of Direct or indirect suspended Type (Space saving design) luminaries suitable for 2 x 28 W CFL Lamps (Wipro Curve WVF 8622B OR equivalent) with anodized matt Aluminum in fill pieces and double parabolic reflector compliance with all accessories including lamps	25		25	Nos					
19.02.00	Supplying, fixing, connecting and commissioning of Direct or indirect luminaries suitable for 2x28W CFL Lamps recessed mounted fitting		10	10	Nos					
19.03.00	Supplying, fixing, connecting & commissioning Spot light fitting with Electronic Ballast complete with all accessories including Suspension system, supplying and fixing of 2 nos 18watts (WIPRO WCP 32113/118 OR equivalent) Fluorescent Lamps with fixing materials for suspension type in the false ceiling	15	5	20	Nos					
19.04.00	Supplying, fixing, connecting and commissioning of RECESSED DOWN LIGHTER FOR 12V, 50 W HALOGEN DICHROIC LAMP OF PHILIPS MAKE CAT # DN 652 (OR) Equivalent with separate Transformer and electronic regulator and all accessories for fixing flush with the false ceiling	5	5	10	Nos					
19.05.00	Supplying, fixing, connecting and commissioning of 1x36 W T5 Fitting with necessary clamps, screws etc.				Nos					
19.06.00	Supplying, fixing, connecting & commissioning exhaust fan for with necessary foundation brackets, interconnection etc.	Ro			No					
20.00.00	<b>SAFETY EQUIPMENTS</b>									
20.01.00	Supplying, erecting and connecting a 2KG CO2 FIRE EXTINGUISHER properly fixed on the wall with necessary clamps, screws, bolts and nuts etc. The extinguisher shall be suitable for all types of fires (A, B & C)	1		1	No					
20.02.00	Supplying, erecting and connecting Treatment Chart in English and Tamil directly fixed on to the wall with necessary screws etc.	1		1	No					
20.03.00	Supplying, and laying 1800 mm. x 1200 mm x 6 mm. thick ISIMarked Rubber mats to be laid in Front of the Distribution Boards.	2		2	Nos					
21.00.00	<b>MISCELLANEOUS</b>									
21.01.00	Liasion with The Chief Electrical Authority to Govt. obtaining Safety Certificate for Energisation of Tamilnadu, preparation of Working drawings etc., obtaining approval for drawing	1		1	LS					
21.02.00	Preparation of " AS BUILT DRAWINGS"	1		1	LS					
<b>Total</b>										
<b>Grand Total</b>										