

Issued to: _____

BHARAT HEAVY ELECTRICALS LIMITED

RAMACHANDRAPURAM :: HYDERABAD-32
TOWNSHIP ADMINISTRATION

TENDER DOCUMENTS (PRICE BID)

Name of work : Annual electrical maintenance works contract in township (Group - 1, 2, 3 & 4).

Tender Notice : HY/TA/E/OT-02/2015-16, Dt. 06.10.2015; Item No. 01

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1. Schedule - A : Schedule of rates and approximate quantities

ADDRESS :

PHONE NO. : _____

E-mail : _____

SCHEDULE - 'A'

ANNUAL ELECTRICAL MAINTENANCE WORKS CONTRACT IN TOWNSHIP (GROUP - 1, 2, 3 & 4).

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
	GROUP - 1 (Residential)				
	POINT WIRING				
1	Supply & Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Each	130	457.50	59,475.00
2	Supply & Wiring for twin control light point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Each	20	625.00	12,500.00
3	Supply and fixing 5A PVC batten holder / angle holder / 3-pin ceiling rose (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	200	34.00	6,800.00
	PLUG POINTS				-
4	Supply and wiring for light plugs (separate socket) with 2 x 1.5 sq.mm + 1 x 1.5 sq.mm (earth wire) of FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit as required along with Supply and fixing metal box of 150mm X 75mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 3 pin 5/6 amps socket outlet and 5/6 amps piano type switch, connection etc. as required; complete all as directed by Engineer-in-charge.	Each	200	687.00	1,37,400.00
5	Supply and fixing of 6 Amps. piano type switch and 3 pin 6 Amps. socket outlet (common socket) on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	150	65.00	9,750.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
6(a)	Supply and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet and 16 Amps piano type switch, connection, etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 2.5 sq.mm run of mains)	Each	30	225.00	6,750.00
6(b)	Supply and fixing wooden box of 180mm X 100mm X 60mm deep (nominal size) on surface with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet and 16 Amps piano type switch, connection, etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 2.5 sq.mm run of mains)	Each	150	147.00	22,050.00
7(a)	Supply and installation of 20A SP MCB and 20A metal clad socket outlet in single phase MCB box on surface or in recess, with chained cover for the socket outlet and complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 4.0 sq.mm run of mains)	Each	50	693.00	34,650.00
7(b)	Supply and fixing wooden box of 100mm X 100mm X 60mm deep (nominal size) on surface with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet to be controlled by 240V, 16/20 Amps single pole MCB fixed on a separate sheet steel SP MCB enclosure including connection, etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 2.5 sq.mm run of mains).	Each	60	352.00	21,120.00
	MAINS WIRING				-
8	Supply & wiring for circuit / submain wiring alongwith earth wire with the following sizes of FR PVC insulated multistranded copper conductor, single core cable in surface / recessed medium class PVC conduit as required; complete all as directed by Engineer-in-charge.				-
a)	2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire	Rmt.	1300	131.00	1,70,300.00
b)	2 x 4.0 sq.mm + 1 x 4.0 sq.mm earth wire	Rmt.	900	162.00	1,45,800.00
c)	2 x 6.0 sq.mm + 1 x 6.0 sq.mm earth wire	Rmt.	150	206.00	30,900.00
d)	4 x 4.0 sq.mm + 2 x 4.0 sq.mm earth wire	Rmt.	25	268.00	6,700.00
	ACCESSORIES				-
9	Supply & fixing following piano type switch / socket on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	240V, 6A Switch	Each	60	29.50	1,770.00
b)	250V, 6A 5-pin socket outlet	Each	60	35.50	2,130.00
c)	250V, 16A Switch	Each	40	61.50	2,460.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
d)	250V, 16A 6-pin socket outlet	Each	40	73.00	2,920.00
10	Supply & fixing following modular switch / socket on the existing modular plate & switch box including connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	240V, 6A Switch	Each	30	75.00	2,250.00
b)	250V, 6A 3-pin socket outlet	Each	30	96.00	2,880.00
c)	250V, 16A Switch	Each	15	109.00	1,635.00
d)	250V, 16A 6-pin socket outlet	Each	15	147.00	2,205.00
11	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required; complete all as directed by Engineer-in-charge.				-
a)	1 or 2 Module	Each	8	63.00	504.00
b)	3 Module	Each	8	75.00	600.00
c)	4 Module	Each	8	81.50	652.00
d)	6 Module	Each	6	98.50	591.00
e)	8 Module	Each	5	121.00	605.00
12	Supply and fixing following accessories with internal connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	230V, 16A, 3-pin plug top	Each	5	60.00	300.00
b)	Ding dong bell	Each	3	118.00	354.00
c)	Electronic Musical bell	Each	3	263.00	789.00
	MAINSWITCHES, FUSES & FUSE D.B.				-
13	Supply & fixing of porcelain rewirable fuse unit of reputed make; complete all as directed by Engineer-in-charge.				-
a)	32A, 415V fuse unit	Each	20	141.00	2,820.00
b)	63A, 415V fuse unit	Each	20	220.00	4,400.00
14	Supply, fixing and connecting of following Main Switch; complete as directed by Engineer-in-charge.				-
a)	415V, 32A Double Pole Iron Clad Main Switch	Each	3	898.00	2,694.00
b)	415V, 32A Triple Pole Iron Clad Main Switch	Each	2	937.00	1,874.00
c)	415V, 63A Triple Pole Iron Clad Main Switch	Each	2	2,044.00	4,088.00
15	Supply, fixing and connecting of porcelain fuses distribution board having metallic sheet steel enclosure; complete as directed by Engineer-in-charge.				-
a)	250V, 16A, 1-phase 6-way	Each	2	468.00	936.00
b)	250V, 16A, 1-phase 8-way	Each	2	588.00	1,176.00
	ISOLATORS, MCBs & MCB D.B.				-

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
16	Supplying and fixing of single pole 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.	Each	20	141.00	2,820.00
17	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
a)	40 amps	Each	5	245.00	1,225.00
b)	63 amps	Each	5	303.00	1,515.00
18	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
a)	40 amps	Each	5	554.00	2,770.00
b)	63 amps	Each	3	563.00	1,689.00
c)	100 amps	Each	2	709.00	1,418.00
19	Supply and fixing following way, single pole & neutral, sheet steel, MCB distribution board on surface / recess complete with tinned copper bus bar, neutral busbar, earth bar, din channel, interconnections, powder painted including earthing etc as required ; complete all as directed by Engineer-in-charge.				-
a)	240V, 2 + 4 way, single door including 63A double pole isolator and 5-32A MCBs complete.	Each	2	1,340.00	2,680.00
b)	240V, 2 + 6 way, single door including 63A double pole isolator and 5-32A MCBs complete.	Each	5	1,662.00	8,310.00
c)	240V, 2 + 8 way, single door including 63A double pole isolator and 5-32A MCBs complete.	Each	2	1,984.00	3,968.00
20	Providing earthing conforming to IS:3043 with 40 mm dia G.I. earth pipe and all accessories including excavation of pit, filling with homogenous layers of coke/charcoal & salt and providing masonry enclosure with hinged cover plate having locking arrangement and watering pipe etc.; including cost and conveyance of all materials; complete as directed by Engineer-in-charge.	Set	15	3,385.00	50,775.00
21	Providing and fixing of 4.00 mm dia copper wire on surface / in recess as required; complete all as directed by Engineer-in-charge.	Metre	250	87.50	21,875.00
	M.S. ITEMS				-
22	Supply & fixing of angular iron frame in wall with 1/1.6 mm MS sheet on top with hinges & all four sides with screws. Necessary red-oxide / grey painting as directed by engineer in charge.	Kg.	75	112.00	8,400.00
23	Supply, fabrication & fixing of MS sheet cupboards made of sheet 1.6mm thick with single/double shutter and mechanical locking arrangements. The cupboards shall be given 2 coats of red-oxide paint and finished with necessary general purpose quick drying oil paint of suitable shade, etc. complete as directed by engineer in charge.	Kg.	50	184.00	9,200.00
	METERS				-

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
24	Supply, fixing and connecting of 3 phase 5Amp /100Amp – 415V C.T meter	Each	1	2,990.00	2,990.00
25	Supply, fixing and connecting of 3 phase 5Amp/100Amp-415V C.T. meter coil.	Each	3	143.00	429.00
	LIGHTING				-
26	Supply, fixing & connecting of bulk head luminaire cat.no. NXC101, with 1 x GLS 60 watts lamp phillps make.	Each	5	687.00	3,435.00
	SPECIAL ITEMS				-
27	supply & fixing of tubular type heating element suitable for 50 Ltrs / 90 Ltrs water heaters 3 hole /triangular disc type / non-threaded type as per samples given as directed by engineer in charge .	Each	25	440.00	11,000.00
28	Supply & fixing of thermostat 30 oC to 90 oC adjustable and suitable for 25Lts to 90Lts.	Each	5	230.00	1,150.00
	SERVICE CONNECTIONS				-
29	Supply & fixing of PVC insulated (WPTC)sheathed weather proof AL. Conductor cable of payal/gold model make 1100V grade together run with 7/18 SWG GI bearer wire outside building and concealed /surface in rigid PVC conduit inside the building including necessary clips insulation tape etc., for service tapping as directed by engineer in charge.				-
a)	one run of 2x10 Sq.mm (twin core WPTC)	Rmt.	500	54.00	27,000.00
b)	two run (4 wires) of 2x10 Sq.mm (twin core WPTC)	Rmt.	600	92.00	55,200.00
	SERVICE CONNECTIONS SUPPORTING MATERIALS				-
30	Supply, fabrication and fixing / grouting of eye bolt made of MS rounds 10/12/16mm dia. as directed by Engineer in charge.	Kg.	20	122.00	2,440.00
31	Supply & fixing of guy insulator of 80x50mm. One guy insulators to be fixed at either ends of the GI wire supporting the service connection cable.	Each	35	44.00	1,540.00
32	Supply & grouting in wall 32mm dia GI pipe (class B) at the building end for entry of service tapping to building. One end of the pipe should have threaded for fixing bends.	Mtr.	10	226.00	2,260.00
33	Supply & grouting in wall 25mm dia GI pipe at the building end for entry of service tapping to building. One end of the pipe should have threaded for fixing bends.	Mtr.	20	166.00	3,320.00
34	Supply & fixing of GI bends 32mm dia for fixing of 25mm/32mm dia GI pipe for arresting entry of rain water into the pipe . Also suitable size of PVC/Rubber bushes should be provided at the entry of the point of pipe/bend.	Each	20	82.00	1,640.00
35	Supply of 32 mm dia 1.5 mm thick medium class PVC conduit pipe along with accessories in surface / recess including cutting the wall and making good the same with required massonary work etc. as required; complete all as directed by Engineer-in-charge.	Mtr.	150	80.50	12,075.00
36	Supply & fixing of Steel support wire 7/20 SWG with tape and new link clips to the existing weather proof wire only in case of breaking of GI wire.	Mtr.	1200	11.00	13,200.00
37	Supply & fixing of bus bar insulators with necessary screw etc..	Each	100	22.00	2,200.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
38	Supply & fixing of 25mm x 5mm copper strip (1.12 kg/m) on surface or in recess for connections as required; complete all as directed by Engineer-in-charge.	Metre	5	766.00	3,830.00
39	Restranging of old service connections with necessary link clips and tapes for the above item	Each	200	196.00	39,200.00
	CABLES LAYING				-
40	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation (0.6 x 0.9m), sand cushioning, protective covering and refilling the trench etc as required; complete all as directed by Engineer-in-charge. (cable will be supplied by BHEL)				-
a)	Upto 35 sq. mm	Metre	150	167.00	25,050.00
b)	Above 35 sq. mm and upto 95 sq. mm	Metre	80	173.00	13,840.00
41	Providing and laying in position cement concrete of 1:4:8 grade (1 cement : 4 fine sand : 8 graded stone aggregate 40 mm nominal size) excluding the cost of centering and shuttering etc. complete all as directed by Engineer-in-charge.	CuM	1	3,331.00	3,331.00
42	Supply & fixing of crimping type copper lugs conforming to I.S. specifications for following sizes of cables including connections; complete all as directed by Engineer-in-charge.				-
a)	upto 16 sq.mm	Each	30	14.00	420.00
b)	25 sq.mm	Each	20	17.00	340.00
c)	35 sq.mm	Each	20	30.00	600.00
d)	50 sq.mm	Each	20	39.00	780.00
e)	70 sq.mm	Each	10	47.00	470.00
f)	95 sq.mm	Each	10	55.00	550.00
	SPECIAL ITEM (Addl. Qty.)				-
43	Supply and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet and 16 Amps piano type switch, connection, etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 2.5 sq.mm run of mains)	Each	200	225.00	45,000.00
44	Supply & wiring for circuit / submain wiring with 2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire of FR PVC insulated multistranded copper conductor, single core cable in surface / recessed medium class PVC conduit as required; complete all as directed by Engineer-in-charge.	Rmt.	2000	131.00	2,62,000.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
					-
	GROUP - 2 (Non-Residential)				-
					-
	POINT WIRING				-
1	Supply & Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Each	200	619.00	1,23,800.00
2	Supply & Wiring for twin control light point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Each	25	625.00	15,625.00
3	Supply and fixing 5A PVC batten holder / angle holder / 3-pin ceiling rose (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	400	34.00	13,600.00
	PLUG POINTS				-
4	Supply and wiring for light plugs (separate socket) with 2 x 1.5 sq.mm + 1 x 1.5 sq.mm (earth wire) of FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit as required along with Supply and fixing metal box of 150mm X 75mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 3 pin 5/6 amps socket outlet and 5/6 amps piano type switch, connection etc. as required; complete all as directed by Engineer-in-charge.	Each	55	687.00	37,785.00
5	Supply and fixing of 6 Amps. piano type switch and 3 pin 6 Amps. socket outlet (common socket) on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	70	65.00	4,550.00
6	Supply and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet and 16 Amps piano type switch, connection, etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 2.5 sq.mm run of mains)	Each	50	225.00	11,250.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
7	Supply and installation of 20A SP MCB and 20A metal clad socket outlet in single phase MCB box on surface or in recess, with chained cover for the socket outlet and complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 4.0 sq.mm run of mains)	Each	15	693.00	10,395.00
8	Supply of 25mm dia 1.5 mm thick medium class PVC conduit pipe along with accessories in surface / recess including cutting the wall and making good the same with required massonary work etc. as required; complete all as directed by Engineer-in-charge.	Mtr.	30	64.50	1,935.00
	MAINS WIRING				-
9	Supply & wiring for circuit / submain wiring alongwith earth wire with the following sizes of FR PVC insulated multistranded copper conductor, single core cable in surface / recessed medium class PVC conduit as required; complete all as directed by Engineer-in-charge.				-
a)	2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire	Rmt	450	131.00	58,950.00
b)	2 x 4.0 sq.mm + 1 x 4.0 sq.mm earth wire	Rmt	200	162.00	32,400.00
c)	4 x 4.0 sq.mm + 2 x 4.0 sq.mm earth wire	Rmt	150	268.00	40,200.00
d)	2 x 6.0 sq.mm + 1 x 6.0 sq.mm earth wire	Rmt	120	206.00	24,720.00
e)	4 x 6.0 sq.mm + 2 x 6.0 sq.mm earth wire	Rmt	75	358.00	26,850.00
	ACEESSORIES				-
10	Supply & fixing following piano type switch / socket on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	240V, 6A Switch	Each	30	29.50	885.00
b)	250V, 6A 5-pin socket outlet	Each	15	35.50	532.50
c)	250V, 16A Switch	Each	20	61.50	1,230.00
d)	250V, 16A 6-pin socket outlet	Each	20	73.00	1,460.00
11	Supply and fixing following accessories with internal connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	230V, 16A, 3-pin plug top	Each	30	60.00	1,800.00
b)	Ding dong bell	Each	8	118.00	944.00
c)	Electronic Musical bell	Each	2	263.00	526.00
	HYLAM SHEET, METAL BOXES & T.W. BOARDS				-
12	Supply, cutting and fixing of hylam sheet of 3mm thickness, preferably white on existing metal boxes as required; complete all as directed by Engineer-in-charge.	S.ft.	20	103.00	2,060.00
13	Supplying and fixing metal box of following sizes (nominal size) on surface / in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required; complete all as directed by Engineer-in-charge.				-

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
a)	8" x 10" (i.e. 200mm x 250mm x 60mm deep)	Each	12	211.00	2,532.00
b)	10" x 12" (i.e. 250mm x 300mm x 100mm deep)	Each	6	310.00	1,860.00
14	Supply & fixing of teak wood boards of following sizes :				-
a)	Teak wood round block	Each	60	15.00	900.00
b)	10" x 12" teak wood board	Each	10	47.00	470.00
c)	12" x 15" teak wood board	Each	5	72.00	360.00
	MAINSWITCHES, FUSES & FUSE D.B.				-
15	Supply & fixing of porcelain rewirable fuse unit of reputed make; complete all as directed by Engineer-in-charge.				-
a)	32A, 415V fuse unit	Each	12	141.00	1,692.00
b)	63A, 415V fuse unit	Each	20	220.00	4,400.00
16	Supply, fixing and connecting of following Main Switch; complete as directed by Engineer-in-charge.				-
a)	415V, 32A Double Pole Iron Clad Main Switch	Each	3	898.00	2,694.00
b)	415V, 32A Triple Pole Iron Clad Main Switch	Each	3	937.00	2,811.00
c)	415V, 63A Triple Pole Iron Clad Main Switch	Each	3	2,044.00	6,132.00
17	Supply, fixing and connecting of 250V, 16A, 1-phase 8-way porcelain fuses distribution board having metallic sheet steel enclosure; complete as directed by Engineer-in-charge.	Each	5	588.00	2,940.00
	ISOLATORS, MCBs & MCB D.B.				-
18	Supplying and fixing of single pole 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.	Each	40	141.00	5,640.00
19	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
a)	40 amps	Each	4	245.00	980.00
b)	63 amps	Each	4	303.00	1,212.00
20	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
a)	40 amps	Each	6	554.00	3,324.00
b)	63 amps	Each	4	563.00	2,252.00
c)	100 amps	Each	2	709.00	1,418.00
21	Supply and fixing following way, single pole & neutral, sheet steel, MCB distribution board on surface / recess complete with tinned copper bus bar, neutral busbar, earth bar, din channel, interconnections, powder painted including earthing etc as required ; complete all as directed by Engineer-in-charge.				-

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
a)	240V, 2 + 4 way, single door including 63A double pole isolator and 5-32A MCBs complete.	Each	4	1,340.00	5,360.00
b)	240V, 2 + 6 way, single door including 63A double pole isolator and 5-32A MCBs complete.	Each	4	1,662.00	6,648.00
22	Supply and fixing following way, horizontal type three pole & neutral, sheet steel, MCB distribution board on surface / recess complete with tinned copper bus bar, neutral busbar, earth bar, din channel, interconnections, powder painted including earthing etc as required; complete all as directed by Engineer-in-charge.				-
a)	415V, 4 way (4 + 12), double door including 63A four pole isolator and 5-32A MCBs complete.	Each	3	3,909.00	11,727.00
b)	415V, 6 way (4 + 18), double door including 63A four pole isolator and 5-32A MCBs complete.	Each	3	5,148.00	15,444.00
c)	415V, 8 way (4 + 24), single door including 100A four pole isolator and 5-32A MCBs complete.	Each	3	5,674.00	17,022.00
23	Providing earthing conforming to IS:3043 with 40 mm dia G.I. earth pipe and all accessories including excavation of pit, filling with homogenous layers of coke/charcoal & salt and providing masonry enclosure with hinged cover plate having locking arrangement and watering pipe etc.; including cost and conveyance of all materials; complete as directed by Engineer-in-charge.	Set	8	3,385.00	27,080.00
24	Providing and fixing of 4.00 mm dia copper wire on surface / in recess as required; complete all as directed by Engineer-in-charge.	Mtr.	55	87.50	4,812.50
	M.S. ITEMS				-
25	Supply & fixing of angular iron frame in wall with 1/1.6 mm MS sheet on top with hinges & all four sides with screws. Necessary red-oxide / grey painting as directed by engineer in charge.	Kg.	50	112.00	5,600.00
26	Supply, fabrication & fixing of MS sheet cupboards made of sheet 1.6mm thick with single/double shutter and mechanical locking arrangements. The cupboards shall be given 2 coats of red-oxide paint and finished with necessary general purpose quick drying oil paint of suitable shade, etc. complete as directed by engineer in charge.	Kg.	50	184.00	9,200.00
	SERVICE CONNECTIONS & MAINS				-
27	Supply & fixing of PVC insulated (WPTC) sheathed weather proof AL. Conductor cable of payal/gold model make 1100V grade together run with 7/18 SWG GI bearer wire outside building and concealed /surface in rigid PVC conduit inside the building including necessary clips insulation tape etc., for service tapping as directed by engineer in charge.				-
b)	one run of 2-core, 10.0 Sq.mm (twin core WPTC)	Mtr.	300	54.00	16,200.00
c)	two run of 2-core, 10.0 Sq.mm (twin core WPTC)	Mtr.	120	92.00	11,040.00
	SERVICE OF MAINS SUPPORTING MATERIALS				-

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
28	Supply & fixing of guy insulator of 80x50mm. One guy insulators to be fixed at either ends of the GI wire supporting the service connection cable.	No.	20	44.00	880.00
29	Supply & grouting in wall 32mm dia GI pipe (class B) at the building end for entry of service tapping to building. One end of the pipe should have threaded for fixing bends.	Mtr.	10	226.00	2,260.00
30	Supply & fixing of GI bends 32mm dia for fixing of 25mm/32mm dia GI pipe for arresting entry of rain water into the pipe . Also suitable size of PVC/Rubber bushes should be provided at the entry of the point of pipe/bend.	Each	6	82.00	492.00
31	Supply of 32 mm dia 1.5 mm thick medium class PVC conduit pipe along with accessories in surface / recess including cutting the wall and making good the same with required massonary work etc. as required; complete all as directed by Engineer-in-charge.	Rmt.	12	80.50	966.00
32	Supply & fixing of Steel support wire 7/20 SWG with tape and new link clips to the existing weather proof wire only in case of breaking of GI wire.	Mtr.	30	11.00	330.00
33	Supply & fixing of bus bar insulators with necessary screw etc..	Each	20	22.00	440.00
34	Supply & fixing of 25mm x 5mm copper strip (1.12 kg/m) on surface or in recess for connections as required; complete all as directed by Engineer-in-charge.	Mtr.	5	766.00	3,830.00
	METERS				-
35	Supply, fixing and connecting of 3 phase 5Amp/100Amp - 415V C.T meter	Each	1	2,990.00	2,990.00
36	Supply, fixing and connecting of 3 phase 5Amp/100Amp-415V C.T.coil	Each	6	143.00	858.00
	LIGHTING				-
37	Supply and fixing of FMS 200/111 , 1xPL s 11 watts (mirror light), switch, starters complete with all accessories inclusive of PF correction capacitor, together with tube light for engg. Hostel philphs make	Each	8	624.00	4,992.00
38	supply and fixing recess mounted luminaire of model no. FBS 450/236 D6 AG HF Philphs make	Each	2	5,012.00	10,024.00
39	Supply fixing of CFL lamp PL-L 36W only bulbs Philphs make	Each	10	189.00	1,890.00
40	Supply and fixing of decoratvie CFL luminaire for wall mounting FL 800/320 with 20 W bulb philphs make.	Each	3	669.00	2,007.00
	SPECIAL ITEMS FOR NON-RESIDENTIAL BUILDINGS				-
41	supply & fixing of tubular type heating element suitable for 50 Ltrs / 90 Ltrs water heaters 3 hole /triangular disc type / non-threaded type as per samples given as directed by engineer in charge .	Each	15	440.00	6,600.00
42	Supply & fixing of thermostat 30 oC to 90 oC adjustable and suitable for 25Lts to 90Lts water heaters.	Each	10	230.00	2,300.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
43	Removal of MS rod from ceiling and fixing of 4'/5' tube light fitting to down rods with suitable MS clamps to provide ceiling rose on Teakwood round block (The work includes dismantling of fittings removal of existing gutties, clamps, bolts & nuts.) as directed by engineer in charge	Each	20	182.00	3,640.00
44	Supply & fixing of 12way - 30Amps., 600 V Bakelite with brass terminal connectors as directed by engineer incharge	Each	6	154.00	924.00
45	Labour charges for installation & operation of decorative lights/series lights/PA system as required on various occasions at important buildings & surroundings etc. and also removing the items after completion of program and handing over to dept.; complete all as directed by Engr-in-charge. (Installation & removal both together will be accounted as one operation) (All materials will be in the scope of BHEL)	Operation	15	3,618.00	54,270.00
	CABLES LAYING				-
46	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation (0.6 x 0.9m), sand cushioning, protective covering and refilling the trench etc as required; complete all as directed by Engineer-in-charge. (cable will be supplied by BHEL)				-
a)	Upto 35 sq. mm	Mtr.	450	167.00	75,150.00
b)	Above 35 sq. mm and upto 95 sq. mm	Mtr.	170	173.00	29,410.00
47	Supplying and fixing following dia G.I. pipe (medium class) for cable entry including bending the pipe to the required shape complete as required; complete all as directed by Engineer-in-charge.				-
a)	50 mm dia G.I. pipe	Mtr.	20	330.00	6,600.00
b)	100 mm dia G.I. pipe	Mtr.	10	746.00	7,460.00
48	Providing and laying in position cement concrete of 1:4:8 grade (1 cement : 4 fine sand : 8 graded stone aggregate 40 mm nominal size) excluding the cost of centering and shuttering etc. complete all as directed by Engineer-in-charge.	Cu.M	4	3,331.25	13,325.00
49	Supply & fixing of crimping type copper lugs conforming to I.S. specifications for following sizes of cables including connections; complete all as directed by Engineer-in-charge.				-
a)	upto 16 sq.mm	Each	20	14.00	280.00
b)	25 sq.mm	Each	30	17.00	510.00
c)	35 sq.mm	Each	40	30.00	1,200.00
d)	50 sq.mm	Each	20	39.00	780.00
e)	70 sq.mm	Each	20	47.00	940.00
f)	95 sq.mm	Each	20	55.00	1,100.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
g)	120 sq.mm	Each	20	85.00	1,700.00
					-
	GROUP - 3 (General Hospital, Bore Wells, NRSP & STDP)				-
					-
	POINT WIRING				-
1	Supply & Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Each	40	619.00	24,760.00
2	Supply & Wiring for twin control light point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Each	3	625.00	1,875.00
3	Supply and fixing 5A PVC batten holder / angle holder / 3-pin ceiling rose (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	55	34.00	1,870.00
	PLUG POINTS				-
4	Supply and wiring for light plugs (separate socket) with 2 x 1.5 sq.mm + 1 x 1.5 sq.mm (earth wire) of FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit as required along with Supply and fixing metal box of 150mm X 75mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 3 pin 5/6 amps socket outlet and 5/6 amps piano type switch, connection etc. as required; complete all as directed by Engineer-in-charge.	Each	15	687.00	10,305.00
5	Supply and fixing of 6 Amps. piano type switch and 3 pin 6 Amps. socket outlet (common socket) on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	15	65.00	975.00
6	Supply and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet and 16 Amps piano type switch, connection, etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 2.5 sq.mm run of mains)	Each	8	225.00	1,800.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
7	Supply and installation of 20A SP MCB and 20A metal clad socket outlet in single phase MCB box on surface or in recess, with chained cover for the socket outlet and complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge. (wiring separate with 4.0 sq.mm run of mains)	Each	6	693.00	4,158.00
8	Supply of 25mm dia 1.5 mm thick medium class PVC conduit pipe along with accessories in surface / recess including cutting the wall and making good the same with required massonary work etc. as required; complete all as directed by Engineer-in-charge.	Mtr.	16	64.50	1,032.00
	MAINS WIRING				-
9	Supply & wiring for circuit / submain wiring alongwith earth wire with the following sizes of FR PVC insulated multistranded copper conductor, single core cable in surface / recessed medium class PVC conduit as required; complete all as directed by Engineer-in-charge.				-
a)	2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire	Rmt.	260	131.00	34,060.00
b)	2 x 4.0 sq.mm + 1 x 4.0 sq.mm earth wire	Rmt.	180	162.00	29,160.00
c)	4 x 4.0 sq.mm + 2 x 4.0 sq.mm earth wire	Rmt.	60	268.00	16,080.00
d)	2 x 6.0 sq.mm + 1 x 6.0 sq.mm earth wire	Rmt.	40	206.00	8,240.00
e)	4 x 6.0 sq.mm + 2 x 6.0 sq.mm earth wire	Rmt.	40	358.00	14,320.00
	ACCESSORIES				-
10	Supply & fixing following piano type switch / socket on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	240V, 6A Switch	Each	5	29.50	147.50
b)	250V, 6A 5-pin socket outlet	Each	5	35.50	177.50
c)	250V, 16A Switch	Each	5	61.50	307.50
d)	250V, 16A 6-pin socket outlet	Each	5	73.00	365.00
11	Supply & fixing following modular switch / socket on the existing modular plate & switch box including connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	240V, 6A Switch	Each	10	75.00	750.00
b)	250V, 6A 3-pin socket outlet	Each	10	96.00	960.00
c)	250V, 16A Switch	Each	10	109.00	1,090.00
d)	250V, 16A 6-pin socket outlet	Each	10	147.00	1,470.00
12	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required; complete all as directed by Engineer-in-charge.				-
a)	1 or 2 Module	Each	6	63.00	378.00
b)	3 Module	Each	6	75.00	450.00
c)	4 Module	Each	6	81.50	489.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
d)	6 Module	Each	6	98.50	591.00
e)	8 Module	Each	6	121.00	726.00
13	Supply and fixing following accessories with internal connections etc. as required; complete all as directed by Engineer-in-charge.				-
a)	230V, 6A, 3-pin plug top	Each	20	43.00	860.00
b)	230V, 16A, 3-pin plug top	Each	20	60.00	1,200.00
c)	Buzzer bell	Each	8	70.00	560.00
d)	Ding dong bell	Each	4	118.00	472.00
	HYLAM SHEET & T.W. BOARDS				-
14	Supply, cutting and fixing of hylam sheet of 3mm thickness, preferably white on existing metal boxes as required; complete all as directed by Engineer-in-charge.	Sq.Ft	5	103.00	515.00
15	Supply and fixing of teak wood round block	Each	10	15.00	150.00
	MAINSWITCHES, FUSES & FUSE D.B.				-
16	Supply & fixing of porcelain rewirable fuse unit of reputed make; complete all as directed by Engineer-in-charge.				-
a)	32A, 415V fuse unit	Each	6	141.00	846.00
b)	63A, 415V fuse unit	Each	10	220.00	2,200.00
17	Supply, fixing and connecting of following Main Switch; complete as directed by Engineer-in-charge.				-
a)	415V, 32A Double Pole Iron Clad Main Switch	Each	2	898.00	1,796.00
b)	415V, 32A Triple Pole Iron Clad Main Switch	Each	2	937.00	1,874.00
c)	415V, 63A Triple Pole Iron Clad Main Switch	Each	2	2,044.00	4,088.00
	ISOLATORS, MCBs & MCB D.B.				-
18	Supplying and fixing of single pole 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.	Each	10	141.00	1,410.00
19	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
a)	40 amps	Each	4	245.00	980.00
b)	63 amps	Each	2	303.00	606.00
20	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
a)	40 amps	Each	4	554.00	2,216.00
b)	63 amps	Each	2	563.00	1,126.00
c)	100 amps	Each	2	709.00	1,418.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
21	Supply and fixing following way, horizontal type three pole & neutral, sheet steel, MCB distribution board on surface / recess complete with tinned copper bus bar, neutral busbar, earth bar, din channel, interconnections, powder painted including earthing etc as required; complete all as directed by Engineer-in-charge.				-
a)	415V, 6 way (4 + 18), single door including 80/100A four pole isolator and 5-32A MCBs complete.	Each	2	4,681.00	9,362.00
b)	415V, 8 way (4 + 24), single door including 80/100A four pole isolator and 5-32A MCBs complete.	Each	2	5,674.00	11,348.00
22	Providing earthing confirming to IS:3043 with 40 mm dia G.I. earth pipe and all accessories including excavation of pit, filling with homogenous layers of coke/charcoal & salt and providing masonry enclosure with hinged cover plate having locking arrangement and watering pipe etc.; including cost and conveyance of all materials; complete as directed by Engineer-in-charge.	Set	5	3,385.00	16,925.00
23	Providing and fixing of 4.00 mm dia copper wire on surface / in recess as required; complete all as directed by Engineer-in-charge.	Mtr.	50	87.50	4,375.00
	M.S. ITEMS				-
24	Supply & fixing of angular iron frame in wall with 1/1.6 mm MS sheet on top with hinges & all four sides with screws. Necessary red-oxide / grey painting as directed by engineer in charge.	Kg.	100	112.00	11,200.00
25	Supply, fabrication & fixing of MS sheet cupboards made of sheet 1.6mm thick with single/double shutter and mechanical locking arrangements. The cupboards shall be given 2 coats of red-oxide paint and finished with necessary general purpose quick drying oil paint of suitable shade, etc. complete as directed by engineer in charge.	Kg.	200	184.00	36,800.00
	LIGHTING				-
26	Supply & erection of street light fitting including street light bracket GI pipe 32mm dia and length 1.5 Mtrs. The street light fittings shall be similar to Bajaj make model No BJSLA 240 including all standard accessories and 2 Nos. 4' flourscent tubes and shall be fixed with MS flat clamps and with 15A rewirable porcelain fuse unit. as directed by engineer incharge.	Each	6	2,207.00	13,242.00
	SPECIAL ITEMS FOR GENERAL HOSPITAL				-
27	supply & fixing of tubular type heating element suitable for 50 Ltrs / 90 Ltrs water heaters 3 hole /triangular disc type / non-threaded type as per samples given as directed by engineer in charge .	Each	15	440.00	6,600.00
28	Supply & fixing of thermostat 30 oC to 90 oC adjustable and suitable for 25Lts to 90Lts water heaters.	Each	10	230.00	2,300.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
29	Removal of MS rod from ceiling and fixing of 4'/5' tube light fitting to down rods with suitable MS clamps to provide ceiling rose on Teakwood round block (The work includes dismantling of fittings removal of existing gutties, clamps, bolts & nuts.) as directed by engineer in charge	Each	6	182.00	1,092.00
30	Supply of 12way - 30Amps., 500 V Bakelite with brass terminal connectors as directed by engineer incharge	Each	20	154.00	3,080.00
31	Supply of emergency lamp dry cell 6 Volts 10 AH rechargable maintenance free battery as directed by engineer in charge.	Each	20	510.00	10,200.00
32	Supply of Kettle element 1.25" dia BPC size with checkout washers 2KW - Power Pack make.	Each	2	484.00	968.00
	SPECIAL ITEMS FOR BOREWELLS				-
33	supply and fixing of air break contactor 3TA11-11-0 Amps, rated current 22 Amps 1 NO + 1 NC 11 KW, 15HP, 415V (Siemens make) as directed by engineer incharge.	Each	4	2,526.00	10,104.00
34	supply and fixing of spare coils AC 50 cycles suitable for 3TA 76/3TA67/3TA21 & 3TA11 standard 415V as directed by engineer in charge.	Each	4	376.00	1,504.00
35	Supply & fixing of timer switch type TSQ-100 make Larsen & Turbo Ltd. as directed by engineer incharge	Each	10	3,652.00	36,520.00
36	Supply and fixing D.O.L /Star delta star push buttons Red /Green colour	Each	8	113.00	904.00
37	CABLES LAYING				-
38	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation (0.6 x 0.9m), sand cushioning, protective covering and refilling the trench etc as required; complete all as directed by Engineer-in-charge. (cable will be supplied by BHEL)				-
a)	Upto 35 sq. mm	Mtr.	220	167.00	36,740.00
b)	Above 35 sq. mm and upto 95 sq. mm	Mtr.	70	173.00	12,110.00
39	Supplying and fixing 50 mm dia G.I. pipe (medium class) for cable entry including bending the pipe to the required shape complete as required; complete all as directed by Engineer-in-charge.	Mtr.	25	330.00	8,250.00
40	Providing and laying in position cement concrete of 1:4:8 grade (1 cement : 4 fine sand : 8 graded stone aggregate 40 mm nominal size) excluding the cost of centering and shuttering etc. complete all as directed by Engineer-in-charge.	Cu.M	2	3,331.25	6,662.50
41	Supply and fixing of heavy duty flange type brass cable glands with brass washers complete for the following sizes of cables :				-
a)	2/3/4 core 2.5 - 6.0 sq.mm	No.	10	41.00	410.00
b)	2/3/4 core 10 sq. mm	No.	10	72.00	720.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
c)	4 core 16 sq. mm / 3.5 core 25 sq. mm	No.	10	87.00	870.00
d)	3.5 core 35 sq.mm / 3.0 core 50 sq.mm	No.	10	91.00	910.00
e)	3.5 core 50 sq.mm	No.	10	101.00	1,010.00
f)	3.5 core 70 sq.mm	No.	10	126.00	1,260.00
g)	3.5 core 95 sq.mm	No.	10	155.00	1,550.00
42	Supply & fixing of crimping type copper lugs confirming to I.S. specifications for following sizes of cables including connections; complete all as directed by Engineer-in-charge.				-
a)	upto 16 sq.mm	Each	24	14.00	336.00
b)	25 sq.mm	Each	24	17.00	408.00
c)	35 sq.mm	Each	24	30.00	720.00
d)	50 sq.mm	Each	24	39.00	936.00
e)	70 sq.mm	Each	24	47.00	1,128.00
					-
	GROUP - 4 (Maintenance of Fans)				-
					-
1	Removing, overhauling and re-fixing of the following fans from residential and non-residential buildings; all complete as directed by Engineer-in-charge. (bearings / bushes will be supplied departmentally)				-
a)	1200 mm sweep ceiling fan	Each	160	77.00	12,320.00
b)	1400 mm sweep ceiling fan	Each	160	77.00	12,320.00
c)	Wall mounted fan / Pedestal fans	Each	55	77.00	4,235.00
2	Removing, overhauling and re-fixing of exhaust fans heavy duty from residential and non-residential buildings as directed by engineer-in-charge (bearings / bushes will be supplied departmentally)				-
a)	Heavy duty exhaust fan	Each	55	127.00	6,985.00
b)	Light duty exhaust fan	Each	55	127.00	6,985.00
3	Supply of new suitable bush bearing of required size during overhauling of the following fans:				-
a)	1200 mm sweep ceiling fan	Each	70	105.00	7,350.00
b)	1400 mm sweep ceiling fan	Each	70	105.00	7,350.00
c)	Exhaust fan / Wall mounted fan / Pedestal fans	Each	40	105.00	4,200.00
4	Supply of AP3 all purpose grease for ball bearings.	Kg.	15	290.00	4,350.00
5	Supply of engine oil 20/40 grade.	Litre	5	290.00	1,450.00
6	Supply of kerosene oil for overhauling of fans.	Litre	20	80.00	1,600.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
7	Reconditioning of over sized bush bearing housing for suitable ball bearing according to size of the fans 36"/48"/56" ceiling fans/Exhaust fans/Wall mounted fans/Pedestal fan.	Each	70	120.00	8,400.00
8	Supply and fixing of Fan rubber rollers (bush) ring washers complete as directed by engineer incharge	Each	520	44.00	22,880.00
9	Supply and fixing of ceiling fan hooks 12mm to 15mm rod in S shape to the ceiling rod including chipping and cleaning with necessary masonry work.	Each	50	119.00	5,950.00
10	Supply of Exhuast fan blades 9"/ 12" light duty / heavy duty.	set	25	198.00	4,950.00
11	Supply and fixing of MS pipe 15mm dia 3.3/5mm thick with one side threaded suitable for ceiling fans.	mtr	50	120.00	6,000.00
12	Supply and fixing of ceiling fan speed regulators Electronic step type of Crompton Greaves / Orient / any reputable make.	Each	120	164.00	19,680.00
13	Removal of burnt out complete existing winding of following sizes of ceiling fan and rewinding the same with suitable super enamelled copper wire as per standard practice and testing. Removal winding wire shall be retained by the contractor and suitably credited its value and net value to be quoted.The rate includes cost of winding, cost of labour & testing, six months guarantee must be given against winding defects				-
a)	1200 mm ceiling fan	Each	300	400.00	1,20,000.00
b)	1400 mm ceiling fan	Each	250	400.00	1,00,000.00
14	Removal of burnt out complete existing winding of folowing sizes of exhaust fans and rewinding the same with suitable super enamelled copper wire as per standard practice and testing. Removed winding wire shall be retained by the contractor and suitably credited its value and net value to be quoted. the rate includes cost of winding wire and sundry items required for winding, cost of labour & testing. six months guarantee must be given agianst winding defects.				-
a)	225 mm light duty exhaust fans	Each	80	350.00	28,000.00
b)	300 mm heavy duty exhaust fans	Each	55	400.00	22,000.00
15	Supply and installation of 225mm (9") light duty exhaust fans of reputable make with metallic blades propeller type with louver shutter type. The fan to be connected with suitable length of 16/0.2mm twin twisted copper wire. The necessary mounting frame together with foundation bolts shall be mounted properly and finsihed neatly to match the surroundings.	Each	2	1,540.00	3,080.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
16	Supply and installation of heavy duty exhaust fans of 300mm (12") fan of 900RPM of reputable make with metallic blades propeller type with louver shutter type. The fan to be connected with suitable length of 16/0.2mm twin twisted copper wire. The necessary mounting frame together with foundation bolts shall be mounted properly and finished neatly to match the surroundings.	Each	2	2,877.00	5,754.00
17	supply and fixing of 1200mm (48") sweep double ball bearing type fan with all standard accessories Bajaj/ GEC/ Crompton make including fan hooks and clamps and connecting it up to the fan point with suitable length of 16./0.2mm PVC insulated twin twisted copper conductor cable.	Each	2	1,768.00	3,536.00
18	supply and fixing of 1400mm (56") sweep double ball bearing type fan with all standard accessories of Bajaj/ GEC/ Crompton make including fan hooks and clamps and connecting it up to the fan point with suitable length of 16/0.2mm PVC insulated twin twisted copper conductor cable as directed by engineer in charge.	Each	2	1,884.00	3,768.00
19	Painting of B.H.E.L serial number on ceiling fans with black / white paint	Each	1000	11.00	11,000.00
20	Removal of the existing paint of ceiling fans of the following sizes rubbing with emari paper. cleaning with caustic soda and repainting the same with one coat of primer and two coats of good quality white / maroon colour enamel paint with sprayer to make it good as original finish.				-
a)	1200 mm sweep ceiling fan	Each	160	225.00	36,000.00
b)	1400 mm sweep ceiling fan	Each	160	225.00	36,000.00
21	Removal of the existing paint of 9"/12" Exhaust fans rubbing with emari paper and cleaning with caustic soda and repainting the same with one coat of primer and two coats of good quality black/ gray colour enamel paint with sprayer to make it good as original finish.	Each	50	200.00	10,000.00
22	Supply of resistance type fan regulator and replacing of existing fan regulator including connection. Removed fan regulators to be handed over to the Electrical store at TA; all complete as directed by Engineer-in-charge.	Each	320	64.00	20,480.00
23	Supply of 2.5 mfd, 400V condenser and replacing of existing fan condenser including connection. Removed condensers to be handed over to the Electrical store at TA; all complete as directed by Engineer-in-charge.	Each	350	44.00	15,400.00
24	Checking and rectification of loose connections in ceiling rose / switch / fan point.	Each	500	15.00	7,500.00
25	cleaning of ceiling fan (of following sizes) body and blades with detergent powder and checking quarter pins, check nuts, and nut bolts etc.; all complete as directed by Engineer-in-charge.				-
a)	1200 mm sweep ceiling fan	Each	600	38.00	22,800.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)

Sl. No.	Name of accessories	Recommended Make to be used
1	FR PVC insulated multistranded copper conductor single core cable (1.5 / 2.5 / 4.0 / 6.0 sq.mm) (of suitable colour code as directed by Engr-in-charge)	1100 Volt Grade, Flame Retardant Low Smoke Type Only. FINOLEX / L&T / HAVELLS / ANCHOR.
2	PVC Conduits	Sudhakar / Avonplast / Nandi
3	6A & 16A piano type / modular type switches & sockets, Bell push	Anchor / GM / SSK / MK
4	Lamp Holder, 3-pin ceiling rose	Anchor / GM / SSK / MK
5	Calling Bell	Anchor / GM / SSK / MK
6	63A, 240V rewirable porcelain fuse unit	Anchor / GM / SSK / MK
7	MCB Dist. Board, 5-32A SP MCBs, 63A DP isolators	Havells / Legrand / Indoasian / Standard
8	Metallic MCB Distribution Box with Metal Clad Socket + Plug top (for Air Conditioner)	Havells / Legrand / Indoasian / Standard
9	16.0 Sq.mm (twin core) PVC insulated, sheathed, 1.1 kV grade Al. Conductor cable	Payal / Fincab / Gold / Havells
10	Stepped type electronic fan regulator	Anchor / GM / SSK / MK
11	Generally all materials supplied by the Contractor	approved make and ISI certified as agreed by the Engr.-in-