

Malaviya National Institute of Technology Jaipur

TENDER NOTICE

Tender Notice No.24/2011-12

Sealed Tenders are invited from contractors for following works-

Name of Work	:-	Electrical maintenance contract in MNIT campus
Approximate Cost	:-	Rs. 9.65 Lakhs
Tender Cost	:-	Nil
Completion Period	:-	01 Year

Tender document can be down loaded from Institute web site www.mnit.ac.in. Detailed terms & conditions are given in the Tender document. MNIT reserve the right to club or divide work and or accept or reject the Tender. Sealed Tenders should be dropped in sealed box in the office of the Estate Engineer before 2.00 PM on 24.01.2012 along with Earnest money amounting Rs. 19,300/- (2% of Approximate Cost) in form of D.D., in favor of Registrar, MNIT Jaipur and copy of the certificates. Date and timings of opening of the Tender is 24.01.2012 at 3.30 PM. Tenders would be opened in the office of Estate Engineers, MNIT Jaipur.

Estate Engineer

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY, JAIPUR

SCHEDULE AND SPECIFICATIONS

1	Name of Work	Electrical maintenance contract in MNIT campus
3	Cost of Tender Document	NIL
4	Earnest Money	Rs.19,300/-
5	Date & Time of receiving tenders	Up to 2.00 P.M. Date: 24.01.2012
6	Date & Time of Opening tenders	3.30 P.M. Date: 24.01.2012

ESTATE ENGINEER

ESTATE SECTION

Terms and Conditions of contract

1. The tenderer shall have to clearly mention in bold letters the name of the work on the top of the sealed envelope containing tender document. The tender should preferably be submitted in the printed envelope of the tenderer otherwise he shall have to print his rubber seal stamp on the envelope. The tender document shall be submitted by the tenderer along with his printed covering letter of the firm.
2. The attested copies of the following documents must be submitted by the tenderer along with his tender document:
 - (A) Sales Tax clearance certificate upto 2011 with TIN number
 - (B) Income Tax return for last three years 2008-09, 2009-10 and 2010-11
 - (C) Firm should be preferably registered in CPWD / PWD / MES / RAILWAYS / SEMI - GOVERNMENT /PHED/ORGANIZATIONS. Valid registration certificate should be attached.
 - (D) Permanent Account Number of the Firm.
 - (E) List of major works of similar nature having completed satisfactorily during last three years with supporting documents.
3. Earnest money **Rs. 19,300/-**, in the form of D.D. in favour of Registrar, MNIT, Jaipur should be enclosed with tender submitted to the institute. Tenders submitted without earnest money shall not be entertained.
4. Sealed tenders shall have to be dropped in the locked tender box placed in the office of the Executive Engineer MNIT up to **2.00 PM on 24.01.2012**. Tenders received after the above date and time shall not be entertained.
5. Sealed tenders shall be opened in the office of Estate Engineer at **3.30 PM on 24.01.2012** in the presence of the contractors or their authorized representatives, those who remain present at that time.
6. Conditional tenders shall not be considered.
7. The tenderers are advised to first inspect the site of work and fully understand very carefully about the conditions of site so as to give superior quality work to institute before submitting tender & include all lead lift etc. for the materials / labour in his percentage to be quoted on the rates as given in the Schedule 'G' / the rates to be offered by him for the Non – DSR/BSR items. The work shall have to be carried out in accordance with the C.P.W.D./P.W.D detailed specifications & measurements laid down thereon to the entire satisfaction of Engineer In-Charge of the work.
8. The work shall have to be started within seven days from the date of issue of work order. In case, if the work is not started within above period, the earnest money shall be forfeited.
9. If the pro-rata progress of the work is not found satisfactory, the work shall be got done from another agency / contractor at the risk & cost of the contractor.
10. The work shall have to be completed within the period as specified in the NIT.
11. The sample of the materials to be used by the contractor shall be deposited in advance with Engineer In-Charge & be got approved by him before use.
12. The Contractor shall adopt all safety measures, which are essential for the execution of the work. The Institute shall not be responsible for any mis-happening if occurred while executing the work; this may please be noted very carefully. The contractor is advised to have the insurance of his staff / workers against any mis-happening while attending the work at his own level.
13. The contractor or his authorized person shall submit weekly progress report of the work executed by him to the Engineer In-Charge of the work.

14. The MNIT reserves all rights to club or divide works and / or accept or reject any or all the tenders without assigning any reason.
15. The quantities of the items mentioned in the G- Schedule can be increased or decreased depending on the prevailing site conditions.
16. The running payments would not be made. Payment would be made after satisfactory completion of the entire work.
17. If the contractor fails to complete the work in the specified period, the compensation for the delay in the work shall be recovered as follows on pro-rata basis at each stage of the work expected to be completed keeping in view the time allowed to complete the work i.e., half work should be completed in half time like wise :

(1) Delay up to one week	1%
(2) Delay exceeding one week and up to two weeks	2%
(3) Delay exceeding two weeks and up to one month	5%
(4) Delay exceeding one month	5% for every delay of 15 days

But the penalty must not exceed to 10% of tendered value of the work (CPWD clause -2)

18. In Case the contractor is unable to complete the work due to unavoidable circumstances / justified reasons, he should apply to the Director well in time for extension of time with the request to waive the liquidated damage/ penalty charges which is at the discretion of the Director, MNIT, Jaipur.
19. The Firm should submit a bank guarantee of rupees equal to 10% of the total bill. If not submitted, the security deposit @ 10 % of total bill amount raised at different stages shall be deducted & will be released after 6 months from the date of actual completion of the total work allocated, only if the work is found satisfactory. If any deficiency is found with in the above period the same shall be made good by the contractor to the satisfaction of the Institute.
20. The Water & Electricity consumption charges for the work will be recovered @ 1% each of the billed amount from the contractor's bill, if it is supplied by the institute.
21. All taxes which are applicable will be bear by the contractor.
22. Security deposit of the work shall not be refunded till the contractor produces a clearance certificate from Labour officer.

Dean (P & D)

I / We have read the above mentioned Terms and conditions at S.No. 1 to 22 very carefully and hereby agree to execute the work on the percentage/rates offered by I/we in enclosed G-schedule and on the above terms & conditions in addition to the conditions of contract laid down by the CPWD.

Signature of the Contractor-----

Name of the Contractor -----

Address -----

Phone / Mobile No. -----

Seal of the Contractor

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

ESTATE SECTION

Subject: Electrical maintenance contract in MNIT campus

G-Schedule

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
1	P & F ISI marked (IS :3854) 6 amp. flush type switch including cutting hole in tile and making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	240		
2	P & F ISI marked (IS :3854) 16 amp. flush type switch including cutting hole in tile and making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	125		
3	P & F ISI marked (IS :3854) bell push flush type including cutting hole in tile and making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	10		
4	P & F ISI marked (IS :3854) 6A twin control switch flush type including cutting hole in tile and making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	10		
5	P & F ISI marked (IS :1293) 3 pin 6 amp. flush type socket including cutting hole in tile and making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	120		
6	P & F ISI marked (IS :1293) 3/6 pin 16 amp flush type socket including cutting hole in tile and making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	135		
7	P & F IS:371 marked 6 amp surface type ceiling rose including making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	75		
8	P & F ISI marked 6 amp bakelite batten/angle holder including making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	100		
9	P & F ISI marked 6 amp bakelite unbreakable 3 pin plug top including making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	25		
10	P & F ISI marked 16 amp bakelite unbreakable 3 pin plug top including making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	35		
11	P & F ISI marked flush type 120/280 watt rotary step fan regulator including making connection testing etc. as required. (Make Anchor, SSK, Legrand)	Each	150		
12	P & F following modular accessories made out of unbreakable and fire retardant poly carbonate with silver contacts including making connections testing etc. as required. (Make Anchor, Legrand, havells)				

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
12.1	6 A one way switch	Each	25		
12.2	6 A two way switch	Each	10		
12.3	6 A bell push	Each	5		
12.4	16 A one way switch	Each	15		
12.5	6 A 3 pin shuttered socket	Each	10		
12.6	16 A 6 pin shuttered socket	Each	10		
12.7	RJ-11 telephone jack single two line	Each	10		
12.8	RJ-11 telephone jack double two line	Each	10		
12.9	RJ-45 computer jack with shutter	Each	10		
12.1	T.V. coaxial socket	Each	10		
12.11	5 step fan regulator	Each	50		
12.12	Blanking plate	Each	100		
13	P & F following size mounting grid plates with cover plates (Make Anchor, Legrand, havells)				
13.1	1/2 Module	Each	10		
13.2	3/4 Module	Each	10		
13.3	5/6 Module	Each	10		
13.4	8 Module	Each	10		
14	P & F following size hot dip galvanized M.S. box with earthing terminal in recess/ surface suitable for modular accessories as required. (Make Anchor, Legrand, havells)				
14.1	1-2 Module	Each	10		
14.2	3/4 Module	Each	10		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
14.3	5-6 Module	Each	10		
14.3	8 Module	Each	10		
15	S & F of PVC trunking system for cable management including finishing accessories like corners, tee, adjustable angles, junction etc. as required . The trunking system shall have adaptable system for RJ 45 data socket/ wiring accessories/ power sockets and shall be covered with peel off plastic cover. (Make Anchor, Legrand, havells)				
15.1	80mm x 50mm	Mtr.	50		
15.2	100/105mm x 50mm	Mtr.	50		
16	P & F ISI marked flush/surface type buzzer including making connection testing etc. as required. (Make BSR Group 1)	Each	5		
17	P & F ISI marked single tone electronic call bell including making connection testing etc. as required. (Make BSR Group 1)	Each	5		
18	P & F ISI marked ding dong/musical chime bell including making connection testing etc. as required. (Make BSR Group 1)	Each	5		
19	P & F office one module call bell system comprising of indicator, push to reset switch housed in pvc/metallic sheet including making connection testing etc. as required. (Make BSR Group 1)	Each	5		
20	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, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch, 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers, making connections, testing etc. as required. Long point (up to 10 mtr..) (Make BSR Group 1)	point	10		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
21	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, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch, 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers, making connections, testing etc. as required. (with modular accessories) Long point (up to 10 mtr.) (Make BSR Group 1)	point	10		
22	P&F following size double lock / ISI marked single lock PVC casing capping & it's accessories like coupler, inner, outer, elbow , square box, tee etc. with screws, PVC expansion fasteners as required. (Heavy Duty) (Make BSR Group 1)				
22.1	25 mm x 12 mm	R. mtr.	150		
23	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 and making good the same as required. (Make BSR Group 1)				
23.1	25 mm	R. mtr.	100		
24	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. (Make BSR Group 1)				
24.1	1 x 1.5 sq.mm	Mtr.	70		
24.2	1 x 2.5 sq.mm	Mtr.	100		
24.3	2 x 2.5 sq. mm. + 1x1.5sqmm	Mtr.	80		
24.4	1 x 4.0 sq.mm	Mtr.	80		
24.5	2 x 4.0 sq. mm. + 1 x 2.5 sq. mm.	Mtr.	40		
24.6	1 x 6.0 sq.mm	Mtr.	80		
24.7	1 x 10.0 sq.mm	Mtr.	20		
25	Supplying and drawing PVC insulated and unsheathed stranded/ solid ISI marked aluminium conductor (IS:694) of 1.1kV grade of approved make in existing surface or recessed conduit/casing capping including making connections etc. as required. (Make BSR Group 1)				

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
25.1	1 x 1.5 sq.mm	Mtr.	100		
25.2	1 x 2.5 sq.mm	Mtr.	100		
25.3	1 x 4.0 sq.mm	Mtr.	50		
25.4	2 X 4.0 sq. mm. + 1 X 2.5 sq. mm.	Mtr.	50		
25.5	1 x 6.0 sq.mm	Mtr.	50		
25.6	2 X 6.0 sq. mm. + 1 X 2.5 sq. mm.	Mtr.	100		
25.7	4 x 10.0 sq.mm	Mtr.	50		
26	Supplying and drawing PVC jacketed with annealed bare copper inner conductor & tinned copper conductor shielding foam PE dielectric coaxial cable of approved make in existing surface or recessed conduit/casing capping including making connections as required. (Make BSR Group 1)				
26.1	RG -11	Mtr.	50		
27	Supplying and drawing PVC/ Polythene insulated and PVC sheathed unarmoured/ armoured telephone cable with 0.5 mm dia. Tinned / annealed copper conductor taped & confirming to ITD specification S/WT-129C of approved make in existing surface or recessed conduit/casing capping. (Make BSR Group 1)				
27.1	Unarmoured 2 pair	Mtr.	400		
27.2	Jelly filled armoured (PIJF) 5 pair	Mtr.	50		
27.3	10 pair	Mtr.	25		
27.4	20 pair	Mtr.	25		
27.5	50 pair	Mtr.	20		
28	P/Laying ISI marked P.V.C. insulated submersible cable confirming to IS:694 with flexible copper conductor including making connection etc. as required. (Make BSR Group 1)				
28.1	4.0 Sq.mm 3 core flat	Mtr.	50		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
28.2	6.0 Sq.mm 3 core flat	Mtr.	40		
29	P & F Krone type main distribution frame (MDF) in the recess / surface made out of 16 SWG sheet steel box, front openable, having locking arrangements duly painted with 2 coat of red oxide paint & two coats of enamel paint. (Make BSR Group 1)				
29.1	10 Pairs	EACH	2		
29.2	20 Pairs	EACH	2		
29.3	50 Pairs	EACH	2		
30	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 BSR Group 1)				
30.1	Single pole MCB 6 A to 32 A rating	Each	80		
30.2	40A to 63 A rating	Each	10		
30.3	Double pole MCB 6 A to 32 A rating	Each	10		
30.4	40 A 63 A rating	Each	10		
30.5	Four pole MCB 6 A to 32 A rating	Each	10		
30.6	40 A 63 A rating	Each	10		
31	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 BSR Group 1)				
31.1	Double pole isolator 30 A / 40 A rating	Each	10		
31.2	63 A rating	Each	10		
31.3	Triple pole Isolator 30 A / 40 A rating	Each	10		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
31.5	63 A rating	Each	10		
31.6	100 A rating	Each	10		
31.7	Four pole Isolator				
	63 A rating	Each	6		
31.8	100 A rating	Each	5		
32	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. (Make BSR Group 1)				
32.1	40 A rating	Each	1		
33	P&F Recessed/ Surface mounting heavy duty horizontal type sheet steel Distribution board phosphatised/ powder painted complete with 100 A copper bus bar, shorting link , neutral link, earth link and din bar, conforming to IS13032 & IS8623 including making internal DB terminations with copper lugs , testing etc. as required. (Make BSR Group 1)				
33.1	Double door (single phase)				
	4 Way	Each	5		
33.2	6 Way	Each	5		
33.3	Double door (Three phase)				
	4 Way	Each	2		
	6 Way	Each	4		
33.4	6 Way	Each	4		
33.5	8 Way	Each	2		
34	P&F flush/surface type enclosure for housing MCB/Isolator with Din rail including making connections with lugs, repairs etc. as required. (Make BSR Group 1)				
34.1	Two way	Each	2		
34.2	Three way	Each	2		
34.3	Four way	Each	2		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
35	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. (Make BSR Group 1)				
35.1	Single phase (Three pin) 20 A	Each	10		
35.2	Three phase (Five pin) 30A-32A	Each	2		
36	P&F of IP51 direct or CT operated, 1x240 / 3x240 volts , 50 Hz static watt-hour meter (kwh) having resolution 0.1 / 0.01 kwh , 1/ 0.5 accuracy class , LED indicators for tamper operation (Reverse &/or earth connection) , pulsating LED indicator for meterology , electromechanical counter , cover plate for body and terminal sealing , including making connection ,testing etc. as required. (Make BSR Group 1)				
36.1	up to 40 ampere single phase meter	Each	2		
36.2	up to 60 ampere three phase meter	Each	1		
37	SITC of wall/ free standing floor mounted dust and vermin proof compartmentalised cubical panel made out of CRCA sheet , required hardware ,duly painted by either two coats of zinc/ red oxide primer followed by two coats of synthetic enamel paint or powder coating in grey or required shade after rinsing . 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 detachable extension type structure. (only outer area on all sides shall be measured) (Make BSR Group 1)				
37.1	Powder coated / epoxy / PU painted with phosphatisation	SQ.Mt r.	10		
38	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. (Make BSR Group 1)				
38.1	Electrolytic grade aluminium bus bar	KG.	10		
39	SF of (0-500) V range Volt meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required. (Make BSR Group 1)				

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
39.1	Digital type	Each	2		
40	SF of CT operated direct reading type Ampere meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required. (Make BSR Group 1)				
40.1	Digital type	Each	2		
41	SF of Current Transformer , with all necessary support in existing panel including connection etc. as required . (Make BSR Group 1)				
41.1	from 200 / 5 to 400/5 Ratio , 10 VA , class 1 accuracy	Each	2		
42	SF of selector switch for voltmeter (4 position) including making connection etc. as required . (Make BSR Group 1)	Each	2		
43	SF of CT linked selector switch of 10 A for Ampere meter (4 position) including making connection etc. as required . (Make BSR Group 1)	Each	2		
44	SF of 240/220 V, LED (22.5 mm dia) Pilot lamp with integral circuit, terminal block, including connection etc. as required. (Make BSR Group 1)				
44.1	Red/yellow/Green colour	Each	6		
44.2	Blue colour	Each	2		
45	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 13947-2 / 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. (Make BSR Group 1)				
45.1	up to 100 Amp , 16/25 kA, adjustable O/L & fixed S/C setting	Each	1		
45.2	160 Amp , 16/25 kA, adjustable O/L & fixed S/C setting	Each	1		
45.3	200 Amp , 25/35kA, adjustable O/L & fixed S/C setting	Each	1		
45.4	250 Amp , 35/50 kA, adjustable O/L & adjustable S/C setting	Each	1		
46	P&F TP&N 415 V side handle operated double break fuse switch unit in sheet steel enclosure conforming to IS: 13947 P-III and IS:4064 (W/O HBC fuses) including making connections with suitable lugs, testing etc. as required.				

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
46.1	100 A rating	Each	1		
46.2	200 A rating	Each	1		
47	P&F onload change over switch, front handle operated, four pole 415 V conforming to IS:13947 P-III including connections , testing etc. as required in the following rating: (Make BSR Group 1)				
	With sheet steel enclosure				
47.1	125 A	Each	1		
47.2	250 A	Each	1		
48	P/Laying P.V.C. insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor of IS:1554 P-I of Group2 of approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, IIInd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size. (Make BSR Group 1)				
48.1	10.0 Sq.mm 4 core	Mtr.	10		
48.2	16.0 Sq.mm 4 core	Mtr.	10		
48.3	25.0 Sq.mm 4 core	Mtr.	10		
48.4	35.0 Sq.mm 3.5 core	Mtr.	10		
48.5	50.0 Sq.mm 3.5 core	Mtr.	10		
48.6	70.0 Sq,mm 3.5 core	Mtr.	10		
48.7	120.0 Sq.mm 3.5 core	Mtr.	10		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
49	Gel Earthing with copper Electrode of size 50mm x 2m by embodying 2.5 mtr. below the ground level with 20 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 filling of Ash gel compound (Dharkan or equivalent approved make), testing of earth resistance as required. (Make BSR Group 1)	Each	4		
50	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. (Make BSR Group 1)				
50.1	8 SWG G.I. Wire	Mtr.	100		
50.2	20mm x 3mm copper strip	Mtr.	10		
50.3	20mm x 3mm G.I. Strip	Mtr.	10		
51	P & F extra down rod of 12mm dia, B class GI pipe including cutting, threading, drilling, fixing quarter pin etc as reqd. (Make BSR Group 1)	Mtr.	20		
52	Numbering of ceiling fans/ fixtures with approved enamel paint etc as reqd.	Each	100		
53	P&F of Resistance type regulator of approved make including cutting of sheet, nut bolts, making connections etc as reqd. (Make BSR Group 1)	Each	100		
54	P&F of Gravity Louver shutter of superior quality made out of M.S. sheet with enamel paint including cost of nuts, bolts, etc as reqd. (Make BSR Group 1)				
54.1	above 380 mm size	Each	10		
55	P & F High pressure sodium vapour/ High pressure mercury vapour/ Metal halide/ Halogen lamp as required. (Make BSR Group 1)				
55.1	HPSV tubular lamp 70 Watt	Each	2		
55.2	150 Watt	Each	5		
55.3	250 Watt	Each	15		
55.4	HPMV lamp 125 Watt	Each	2		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
55.5	Metal halide lamp single ended tubular				
	250 Watt	Each	5		
55.6	400 Watt	Each	8		
56	P & F Capacitors for power factor improvement in existing HPSV/HPMV/ Metal halide lamp fixture as required. (Make BSR Group 1)				
56.1	33 mfd	Each	30		
58	P & F Electronic ignitor suitable for HPSV/ Metal halide lamp up to 30.0 Mtr. distance as required. (Make BSR Group 1)	Each	35		
59	P & F low loss electromagnetic polyester copper ballast suitable for HPMV / HPSV / Metal halide lamp luminaire as required. (Make BSR Group 1)				
59.1	For HPMV lamp				
	125 Watt	Each	2		
59.2	For HPSV/ Metal halide lamp				
	70 Watt	Each	2		
59.3	150 Watt	Each	2		
59.4	250 Watt	Each	10		
59.5	400 Watt	Each	8		
60	Repairing of street/ road light pole including making connection, replacing accessories making as good as required. (Up to 11 mtrs hight) (Make BSR Group 1)	Each	125		
61	Repairing of high mast light including making connection, replacing accessories making as good as required. (Up to 16 mtrs hight) (Make BSR Group 1)	Each	5		
62	Power Contactor single Phase 25 A (Make BSR Group 1)	Each	1		
63	Timer switch with back up for road lights (Make BSR Group 1)	Each	1		
64	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 . (Make BSR Group 1)	Mtr.	10		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
65	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 Ecat 5 application complying to latest ammendments EIA/ TIA 568 B.2 specifications in existing modular /MS Boxes along with necessary connections as required. I/O's to have Terminator caps for toolless termination Single Outlet (Make BSR Group 1)	EACH	30		
66	P & F box type fluorescent tube fitting fabricated from CRCA sheet and finished with powder coating / stove enamelled paint complete with accessories like (OCCB, starter, starter seat)/ EB, condensor, rotor holder, terminal block duly prewired with copper conductor including making connection, testing etc. as required. (without tube) (Make BSR Group 1)				
66.1	1 X 36 Watts with EB	Each	40		
66.2	2 X 36 Watts with EB	Each	20		
66.3	1 X 28 Watts with EB	Each	40		
66.4	2 X 28 Watts with EB	Each	20		
67	P & F Fluorscent tube rod in existing fixtures as required (Make BSR Group 1)				
67.1	Flourscent powder coated 18/20 Watts	Each	40		
67.2	36/40 Watts	Each	600		
67.3	T5 Lamps 14 Watts	Each	10		
67.4	28 Watts	Each	20		
68	P & F Ballast for existing FTL / CFL fixture as required. (Make BSR Group 1)				
69	Polyester copper ballast 18/36 Watts suitable for FTL. (Make BSR Group 1)	Each	90		
70	High frequency electronic ballast 18/36 watts for FTL. (Make BSR Group 1)	Each	20		
71	Vacuum pressure impregnated copper ballast for 9/11/13/18 watt CFL. (Make BSR Group 1)	Each	40		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
72	P & F Capacitors for power factor improvement in existing flourscent lamp fixture as required. (Make BSR Group 1)				
	4 Mfd 250 V	Each	50		
73	P & F starter for existing flourscent lamp fixture as required. (Make BSR Group 1)				
	FSU	Each	150		
74	P & F of surface/ recess mounting CFL luminaire made from powder coated CRCA sheet with aluminium reflector assembly electrochemically brightened and anodized cross louvers, complete with accessories e copper ballast, starter, holder, terminal block duly prewired with copper conductor including making connections, testing etc. as required (without lamp) (Make BSR Group 1)				
74.1	Surface mounting 2 X PL-9/11 Watt	Each	25		
74.2	1 X PL-13/18 Watt	Each	25		
75	P & F energy efficient direct fit (Retrofit) composite compact flourscent lamp of energy saving labelling not less than 3 star and PF 0.8 in existing holder/ fixture as required. (Make BSR Group 1)				
75.1	5 Watt	Each	100		
75.2	14/15 Watt	Each	20		
76	P & F two pin energy efficient compact flourscent lamp in existing holder/fixture as required. (Make BSR Group 1)				
76.1	11 watt	Each	95		
76.2	36 Watt 4 pin	Each	20		
77	P & F 18 SWG Sheet steel boxes duly finished with two coats of red oxide and with earthing terminal of following sizes (nominal size) on surface or in recessed as required. (Make BSR Group 1)				
77.1	100mm x 100mm x 50mm	Each	10		
77.2	150mm x 75mm x 60mm	Each	15		
77.3	175mm x 100mm x 60mm	Each	10		
77.4	225mm x 100mm x 60mm	Each	10		

S.No.	Description of items	Unit	Qty	Rates in Rs.	Amount in Rs.
77.5	200mm x 250mm x 75mm	Each	22		
78	P & F surface/recessed type 10 mm thick Teak wood board duly antitermite treated, varnished and fixed by using gutties/ PVC fasteners of following size as required. (Make BSR Group 1)				
78.1	100 mm x 100 mm	Each	5		
78.2	100 mm x 175 mm	Each	5		
78.3	100 mm x 250 mm	Each	7		
79	P & F sheet for boxes/ frames including making holes for switches etc, with brass screws, washers/ zinc plated nut and bolts as required. Synthetic phenolic resin bonded laminated Sheet. (Make BSR Group 1)				
79.1	3.0 mm thick	Sq.m	15		
80	Bulb 60/100 W. (Make BSR Group 1)	Each	50		
				Total	

I / We hereby agree to execute the work on the above mentioned rates and term condition, total amounting to Rs _____ for the entire work and on the enclosed terms and conditions of contract of the Institute.

Signature of the contractor with seal
Address _____

Mobile No _____

Opened by us on _____
Tender Stands total amounting to Rs _____ for the entire work

Estate Engineer