

NATIONAL INSTITUTE OF TECHNOLOGY HAZRATBAL, SRINAGAR- 190006 (J&K) (Planning & Development Wing) E-TENDER NOTICE

BID DOCUMENT

[Two Cover system]

Tender No. NITS/PnD/ET/2020/Elect/05

Date: 25/08/2020

For & on behalf of Chairman Board of Governors NIT Srinagar, e- tender(**in single cover system**) are invited from **Electric Contractors** registered with state **PDD**, **CPWD Electric**, **MES Electric** for the below mentioned works:-

S. No	Particulars of Items	Earnest money	Contract Value	Time period	Class of contractor	Cost of T.D
01.	Electric Stage 2020-2021	Rs. 1,20,000/-	Rs.60.00 Lacs	During current financial year	Class A,B & above (Electric)	Rs. 50/-

TERMS & CONDITIONS:-

1. The Bidding documents Consisting of qualifying information, eligibility criteria, specifications, Drawings, bill of quantities (B.O.Q), Set of terms and conditions of contract and other details can be seen/downloaded from the NIT website **www.nitsri.ac.in** as per schedule of dates given below:-

Sl. No	Description of work	Bid Security to be given in INR	Last Date & Time for purchase of bid document online	Last date & Time for online submission of bids	Date/Time for opening of Technical bid
1	Electric Stage 2020 – 2021	Rs. 1,20,000/-	07.09.2020 at 22:00	09.09.2020 at 13:00	09.09.2020 at 14:30 in the office of Executive Engineer P&D Wing

- Bids must be accompanied with cost of Tender document in shape of <u>NIT, Chest receipt/(</u><u>Mentioning therein Nomenclature of the work and Advertised Cost</u>) in favour of Sr. <u>Executive</u> <u>Engineer (Electric) P&D Wing NIT, Srinagar</u> (tender inviting authority) and Earnest money / Bid security in shape of CDR/FDR pledged to <u>Dean P&D Wing, NIT, Srinagar</u> (tender receiving authority).
- 3. The date and time of opening of Bids shall be notified on Web Site **www.nitsri.ac.in** and conveyed to the bidders automatically through an e-mail message on their e-mail address. The **bids of Responsive bidders** shall be opened online on same Web Site in the Office of **Dean P&D Wing NIT. Srinagar (tender receiving authority).**
- 4. The bids for the work shall remain **valid for a period of 120 days from the date of opening of Technical bids**
- 5. The earnest money shall be forfeited, If:-
- a. Any bidder/ tenderer withdraw his bid/ tender during the period of bid validity or makes any modifications in the terms and conditions of the bid.

- b. Failure of Successful bidder to furnish the required performance security within the specified time limit.
- c. Successful bidder to execute the agreement within 28 days after fixation of contract.
- 6. Instruction to bidders regarding e-tendering process.
- a. Bidders are advised to download bid submission manual from the "Downloads" option as well as from "Bidders Manual Kit" on website **www.nitsri.ac.in** acquaint bid submission process.
- b. To participate in bidding process, bidders have to get 'Digital Signature Certificate (DSC)' as per Information Technology Act-2000. Bidders can get digital certificate from any approved Vendor.
- c. The bidders have to submit their bids online in electronic format with digital Signature. No bid will be accepted in physical form.
- d. Bids will be opened online as per time schedule.
- e. Bidders must ensure to upload scanned copy of all necessary documents with the bid.
- f. <u>Bidders must ensure to upload scanned copy of all necessary documents with the technical bid.</u>

Note: - Scan all the documents on 100 dpi with black and white option.

- 7. Scanned copy of cost of tender document in shape of NIT, Chest (Mentioning therein the NIT No., nomenclature of the work and Advertised Cost) in favour of Sr. Executive Engineer (Electric) NIT, Srinagar and Earnest Money / Bid Security in shape of CDR/FDR. (The date of earnest money/Bid security should be between the date of start of bid and Bid Submission End date) pledged to Executive Engineer P&D Wing Srinagar must be uploaded with the documents of the bid. The original NIT Chest (cost of tender document), CDR/FDR (earnest money/bid security) and relevant bid documents shall be obtained from the lowest bidder before the fixation of contract.
- 8. Any item or items of work beyond the allotted items necessitated at site if any shall be also paid on allotted appreciation/depreciation on the Estimated Rate.
- 9. Bidders are advised to use <u>"My Documents"</u> area in their user on R&B e-Tendering portal to store such documents as are required.
- 10. Instructions to Bidder (ITB)
- **a.** All bidders shall upload the following information and documents along with qualification criteria / qualification information with their bids:-
- b. Copies of original documents defining constitution/ legal status, place of registration and principal place of Business with Cell No. and Correspondence address.
- c. Treasury Challan/CDR/FDR
- d. Scanned Copy of PAN Card
- e. Scanned Copy of GSTIN Registration and latest clearance certificate FORM GST-3B i.e. latest clearance certificate FORM GST-3B of the preceding Month to the issued of NIT.
 - 11. All documents relating to the bid shall be in the English Language.
 - 12. <u>Bidder must ensure to upload scanned copies of all necessary documents including earnest</u> money and tender documents fee in terms of soft copies with technical bid. No document (s) which has /have not been uploaded shall be entertained in the form of hard copy. However, in case of any clarification the bidders shall have to produce original documents in support of soft copies if need arises
 - 13. The date of start of the work shall be reckoned within one week from the date of issuance of LOI/Contract allotment as the case may be.
 - 14. **Penalty for delay in completion:-**In case of delay in completion of work beyond stipulated period of completion, penalty upto Rs. 200/- per day shall be imposed.
 - 15. The tender receiving authority reserves the right to accept or reject any tender or all tenders without assigning any reason thereof.

16. Unbalanced Bid:- In case bid of the bidder is unbalanced, the bidder has to upload additional performance security in shape of CDR/FDR as per the breakup given below, failing which the tender shall be rejected. (The date of CDR/FDR should be between the date of start of bid and bid submission end date).

S.No	Percentage of unbalance bid viz., advertised cost on account of Low rates	Additional Performance Security
01.	Upto and including 15% below	Nil
02.	>15% upto and including 20% below	5% of Advertised Cost
03.	>20% upto and including 25% below	10% of Advertised Cost
04.	>25% upto and including 30% below	15% of Advertised Cost
05.	> 30% below	20% of Advertised Cost

The additional performance security shall be released only after successful completion of work.

- *17.* **Restoration of work:-** On completion of contract the contractor shall be responsible to remove all un-used material and restore all work in its original position at his own cost.
- *18.* **Traffic regulations:-**The contractor is bound to adhere to traffic regulations as is applicable from time to time and ensure arrangements of smooth regulation of traffic during execution of work.
- *19.* **Defect Liability period**:- The DLP shall be Calculated from date of certified completion of work and period <u>shall be 06months</u>. The defects noticed in the work during execution or D.L.P. shall be corrected by the Contractor within the length of time specified by the Engineer. If the contractor does not correct the defects pertaining to D.L.P. to the satisfaction of the Engineer within the time specified, the Engineer will assess the cost of having the defects corrected and contractor will pay this amount on correction of defects.
- 20. The date of start of work shall be reckoned within seven days from the date of issuance of allotment/ Letter of intent. In case the agency fails to execute the work, the deposits in the shape of CDR and Additional performance guarantee shall be liable for forfeiture besides initiating other punitive actions against the defaulter without serving any notice.
- 21. **Tests**:-The contractor shall be solely responsible for carrying out the mandatory tests required for the quality control at his own cost.
- 22. **Termination**:- The employer may terminate the contract if the contractor causes a fundamental breach of the contract.
- 23. **Court's Jurisdiction:-** In case of any dispute/differences between contractor and department the jurisdiction shall be union territory of J&K .

Sr. Executive Engineer Electric Maintenance Division

NO: NIT/EMD/2020/ DT:

Copy to:-

1. Director for information please.

- 2. Associate Dean NIT Srinagar for information please.
- 3. Deputy Registrar (Accounts) for information please.
- 4. Institute Website in charge with the request to get the N.I.T up loaded in the Web Sites.

TENDER DOCUMENT OF ELECTRIC STAGE 2020

The intending tenders are requested to quote so much percentage above /below the proposed rates in the following manner:-

S.No.	Particulars of item	Rate to be quoted by the Contractor
01	The contractor may quote single percentage of rate above or below (Appreciation/depreciation) neatly in figures as well as in words to all items of CPWD DSR 2018 Electric under various heads and for the items which are not covered in DSR 2018 placed below.	

S.No	Particulars	Unit rate
	Computer / Heating / Charging/ Internet Points	
1)	P/F of Computer board point of Modular switch/socket including switch Box, 8module plate, 8 Modular Base, 8 Modular Metal Boxes and cover plate etc asrequired. The details of the switch /Sockets are as follows:1. 15 Amp Switch2. 15 Amp Socket (Universal)3. 10 Amp, 5-pin Socket4. Indicator1 Nos.Make : (Legrand, Hager, and L&T)	1,350.00
2)	Supplying & fixing following modular switch of 15/16 Amp, Socket outlet of 6 pin 15/16 Amp and GI metal box along with modular base & cover plate of 3 module (100mm \times 75mm) for modular switches in recess including connections etc as required. complete the job in all respects.	350.00
3)	Supplying & fixing following modular switch of 25 Amp , Socket outlet of 3 pin 25 Amp and GI metal box along with modular base & cover plate of 3 module (100mm × 75mm) for modular switches in recess including connections etc as required. complete the job in all respects.	550.00
4)	Supplying & fixing following modular Socket outlet of 3 pin 25 Amp having modular box with mini MCB of 25 A "C" curve and GI metal box along with modular base & cover plate of 3 module (100mm × 75mm) for modular switches in recess including connections etc as required. complete the job in all respects.	575.00
5)	Supplying & Fixing of Charging Point of following modular switch of 10 Amp , 2 No of Socket outlet of universal type 3-pin 6 Amp, Indicator and GI metal box along with modular base & cover plate of 6 module for modular switches in recess including connections etc as required. Complete the job in all respects.	650.00
6)	P/F 5 KVA wall mount, copper wind, air cooled Auto Voltage Regulator of Global / IFB/ V-Guard make with design voltage range of (I/P 90-290V and O/P 200- 290V). Complete in all respect.	11,000.00

7)	P/F of earthing to main board which includes digging of earth pit upto 8', filling of earth pit with charcoal, salt etc. of required quantity and fixing of copper plate of 600mm x 600mm x 5mm dimensions and provide masonry enclosure with plate having locking arrangement and water pipe of 2.7 meter long cover long etc with charcoal/coal and salt as required. The job includes 0.5 inch copper strip to be earthed with sub-main LT panel/distribution box. Complete in all respects.	15,000.00
8)	P/F of Maintenance free Chemical Earthing using copper Electrode of size 76 mm dia, 03 meter long connected with 50X6 mm Copper internal strip complete with excavation, civil works, cast iron cover with back fill compound along with 60 kg bag of Back fill compound/SOR Compound (highly conductive, non corrosive moisture retaining chemical) complete. The voltage between Neutral & Earth not to exceed 0 volts & IR value less than 1 ohm. The earth resistance shall be as per IS 3043. Copper strip of size 32 mm X 5 mm be connected to main Distribution board.	30,000.00
9)	P/F of Maintenance free Chemical Earthing using G.I Electrode of size 76 mm dia, 03 meter long connected with 50X6 mm G.I internal strip complete with excavation, civil works, cast iron cover with back fill compound along with 60 kg bag of Back fill compound/SOR Compound (highly conductive, non corrosive moisture retaining chemical) complete. The voltage between Neutral & Earth not to exceed 0 volts & IR value less than 1 ohm. The earth resistance shall be as per IS 3043. G.I strip of size 32 mm X 5 mm be connected to main Distribution board.	14,500.00
10)	P/F of UTP Cat-6e cable of Dlink make in 2mm PVC pipe of Alba/Plaza make of suitable size. Complete in all respect.	75/mtr
11)	P/F of computer socket-RJ45 with key stone/face plate for internet connection of Dlink/legrand make with suitable connections. Complete in all respects.	750.00
12)	P/F of Telephone socket-RJ11 with key stone/face plate for telephone connection of Dlink/legrand make with suitable connections. Complete in all respects.	370.00
13)	Supply, installation, testing, and commissioning of IP 65 LED street light fitting having system lumen output of 7000 lumens and system efficacy better than 80 lumens per watt with pressure die cast aluminum alloy body and life expectancy of 50,000 hrs @ L70, PF better than 0.9 CRI better than 70, TDH less than 15% complete with all accessories suitable for vertical/horizontal mounting on pole complete with connections etc as required. (Make: Trilux / Phillips/ schienider / zumtobell)	15,000.00
14)	P/F of wall light with following specifications:- Model :- OMEGA Type: - 929689640802. Color: - White and Silver. Material: - ABS & Polycarbonate. Lamp base &wattage:- 1pcs Essential 18W B22 CDL Incl. Make: - Philips or equivalent Bajaj or HPL.	950.00
15)	 P/F of Inverter technology O General 1.5 Ton 5 Star Split AC with following Specifications. Type: - Split AC, Wall Mounted, Noise 26dB, refrigerant 410a Capacity: - 1.80 Ton. Make :- Daikin /IFB power input 1480 w, operating current 6.6 amps, cooling capacity 5200 Other Features: - Anti bacteria Filter, Jet Cool, Auto Start, Timer, and Sleep Mode. Complete in all respects including copper pipes, 4-core electric cable, MS stand, drain pipe and 5 KVA wall mount, copper wind, Stabilizer of O General or equivalent make (I/P 90-290V and O/P 200-240V). Complete in all respects. 	98,500.00

	D/E of Inventor technology based Air Conditioner IWAC (Hat and Cold) with	
	P/F of Inverter technology based Air Conditioner HVAC (Hot and Cold) with following Specifications:-	95,000.00
	1. Company fitted Heat Convector.	
	2. Type: - Split AC, Wall Mounted.	
	3. Capacity: - 1.80 Ton.	
10	4. Make :- Daikin /IFB	
16)	5. Voltage: - 230 Volts.	
	5. voluge. 250 volts.	
	Other Features: - Anti bacteria Filter, Jet Cool, Auto Start, Timer, and Sleep Mode.	
	Complete in all respects including copper pipes, 4-core electric cable, MS stand,	
	drain pipe and 5 KVA wall mount, copper wind, Stabilizer of Global / Alba/V-	
	Guard/ make(I/P 90-290V and O/P 200-240V). Complete in all respects.	
	P/F of Inverter technology based Air Conditioner HVAC (Hot and Cold) with following Specifications:-	82,000.00
	1. Company fitted Heat Convector.	02,000.00
	 Type: - Split AC, Wall Mounted. 	
	3. Capacity: - 1.50 Ton.	
	4. Make :- Daikin /IFB	
17)	5. Voltage: - 230 Volts.	
-	5. Voltage 250 Volts.	
	Other Features: - Anti bacteria Filter, Jet Cool, Auto Start, Timer, and Sleep Mode.	
	Complete in all respects including copper pipes, 4-core electric cable, MS stand;	
	drain pipe and 5 KVA wall mount, copper wind, Stabilizer of Global / Alba/V-	
	Guard (I/P 90-290V and O/P 200-240V)make. Complete in all respects.	
18)	Supply and Installation of Remote Controlled wall mounted blower (Humidifier heater) of 2000 Watt , 240volt. (Make: Warmax /bajaj)	6,000.00
	Supply and Installation of Remote Controlled wall mounted blower (Humidifier	0,000.00
19)	heater) of 2000 Watt , 240volt. (Make: Usha only)	8,500.00
	Providing, installation, Testing and commissioning of 42 " Widescreen LED TV of	
	SAMSUNG/LG or equivalent make including HDMI to DVI signal output cable	
	with following specification.	
	1. Aspect Ratio 19:9	
	2. Resolution 1920 x 1080	
	3. Video Input RGB, HDMI/DVI	
20)	4. Digital (connectivity) HDMI/DVI with HDCP	
20)	5. Audio RGB/DVI Audio, Composite Audio(RCA)	
	6. Analog Composite(BNC), RGB	
	7. Audio Power 20W(10W x 2)	
	8. Source Selection HDMI/DVI, RGB, AV	
	9. Power Consumption(Normal) 220W	45,000.00
	Providing, Installation, Testing and Commissioning of 65" LED TV of Samsung or	
	equivalent make with HDMI, Wi-Fi facility and with following specifications.	
	1. Brand Name: Samsung	
	2. Smart functionality: Yes	
21)	3. Built-in Wi-Fi: Yes	
	4. Dimensions (W×H×D): 57.3"×35.8"× 14.5"	
	5. Display Image: 65"	
	6. Speaker count: 2	

	7. Resolution: 1920 × 1080 pixels	
	8. HDMI port: 4	
	9. USB Port: 3	07 000 00
	10. Power supply: 100-240V, 50-60Hz	85,000.00
SAN	 viding, installation, Testing and commissioning of 55" Full HD LED TV of ISUI/LG or equivalent make with internet, HDMI and with following cifications. 1. Display Features: FULL HD 2. Screen Size: 55" 3. Connectivity: HDMI, USB Ports. 4. Resolution: 1920×1080 pixels 5. No. of Selectable Picture Modules: 5 6. Audio Output: 20W(10W×2) 7. No. of Speakers: 2 8. Power Consumption:135 Watt. 9. Power Supply: 100-240V, 50-60 Hz 	65,000.00
	 viding, installation, Testing and commissioning of 32" HD LED TV of ASUNG / LG or equivalent make with HDMI and with following specifications. 1. HD Resolution: 1366 × 768 2. HDMI Ports: 2 3. USB Port: 1 4. PMI (Picture Mastering Index): 300Hz 5. Built-in Speakers: 2 6. LED Display 7. Supply AC: 100-220V, 50-60 Hz 	35,000.00
LEI INT 24) On	viding, installation, Testing and commissioning of 55" Full HD ANDRIOD D TV with following specifications. 1. Display Features: LED FULL HD 2. Screen Size: 55" 3. Connectivity: ETHERNET INPUTS : 1 NO 4 HDMI Ports WIFI CONNECTIVITY RF(provision for Cable connection) TERNET BROWSER Yes(Opera) PLICATION STORE Yes (Google Play Store) e-touch mirroring, Screen mirroring (Miracast [™]), Google [™] Cast, Video & TV eView (iOS/Android), Photo Sharing Plus 4. Resolution: 1920×1080 pixels 5. No. of Selectable Picture Modules: 5 6. Audio Output: 20W(10W×2) 7. No. of Speakers: 2	87,000.00

25)	Providing, installation, Testing and commissioning of 49" Full HD ANDRIOD LED TV with following specifications. 1. Display Features: LED FULL HD 2. Screen Size: 49" 3. Connectivity: ETHERNET INPUTS : 1 NO 4 HDMI Ports WIFI CONNECTIVITY RF(provision for Cable connection) INTERNET BROWSER Yes(Opera) APPLICATION STORE Yes (Google Play Store) One-touch mirroring, Screen mirroring (Miracast [™]), Google [™] Cast, Video & TV SideView (iOS/Android), Photo Sharing Plus 4. Resolution: 1920×1080 pixels	
	 Kesolution: 1920×1080 pixels No. of Selectable Picture Modules: 5 Audio Output: 20W(10W×2) No. of Speakers: 2 Power Consumption: 135 Watt. Power Supply: 100-260V, 50-60 Hz 	65,000.00
26)	Supply, Installation, Testing and Commissioning of multimedia LED projector Epson EB-S31 3LED SVGA projector Brightness 3200lm with HDMI Port (3200 lumens) Connectivity including providing & fixing Ceiling Mount Kit Square and installing the projector on ceiling in a well protected iron cage of suitable size. The job includes providing & fixing 20 meter HDMI/VGA Cable with connectors using PVC conduit/channel. Complete in all respects.	42,000.00
27)	Supplying & fixing white wall mounted screen (6' x 8') for the multimedia LED projector, pull down type.	10,000.00
28)	P/F of high lumen LED 6500k, 120lm/w wall mounted led batten, extruded aluminum heat sink provided for efficient heat dissipation & integrated electronic driver including earthing point. Complete in all respects. (Make Phillips TYPE: BN 100C LED40S-6500 PSU L120 GR- (4ft)	2,370.00
29)	P/F of high lumen LED 6500k, 120lm/w wall mounted led batten, extruded aluminum heat sink provided for efficient heat dissipation & integrated electronic driver including earthing point. Complete in all respects. (Make Phillips TYPE: BN 021C- LED20S PSU CWGR S2 (4ft)	1,050.00
30)	Supply, Installation, Testing and Commissioning of M1/M1E portable LED projector of resolution 854*480WVGA of 450 Lumens, contrast ratio: 120000:1 with HDMI Port Connectivity. The back up life of battery must be atleast 2 hrs. The job includes providing & fixing 20 meter HDMI/VGA Cable with connectors using PVC conduit/channel. Complete in all respects.	45,000.00
31)	P/F of computer board with earth wire in 4 mm multi stranded PVC copper wire in 1" 2mm PVC pipe/ channel of Plaza/Alba Make to be laid underground to be recessed in the wall with following accessories of modular series to be fitted on metallic box of suitable size (recess type). 15 Amp Switch FT(1Nos),15 Amp Socket FT(2Nos),10 Amp, 5-pin Socket(2 Nos),Indicator, Fuse etc. Complete in all respects including resurfacing of room plaster.	2,250.00
32)	P/F of M-Tek ET-8080 Hadi Tall Tubular 180Ah Battery, 12 V Tubular battery of Exide/ Microtek/Luminous make or equivalent Battery	

	including suitable plastic trolley along with brass terminals in all respects. 3 years warranty	19,500.00
33)	P/F of M-Tek ET-1148 Hadi Tall Tubular 200Ah Battery, 12V Tubular battery of Exide/ Microtek/Luminous make or equivalent Battery including suitable plastic trolley along with brass terminals in all respects. 3 Years warranty	21,500.00
34)	P/F of 150AH 12V Tubular battery of Exide/ Microtek/Luminous make or equivalent Battery including suitable plastic trolley along with brass terminals in all respects.	14,500.00
35)	P/F of 1100 VA sine wave Inverter of Luminous/Microtek/Exide with all accessories.	8,300.00
36)	P/F of 1600 VA sine wave Inverter of Luminous/Microtek/Exide with all accessories.	13,500.00
37)	 P/F of 2500 VA, 24/36 Volt sine wave Inverter of with following specifications: MICRO-CONTROLLER BASED Intelligent Control Design. Display Indications (Status & Fault) CCCV Technology with Auto Trickle Mode Smart Overload Sense and Short Circuit Protection Battery State Monitoring Easily Serviceable Multi Stage Battery Charger Mains Input Voltage Range Selection: 150-260V Input voltage: 120-260 volts Output voltage: 220 volts 	13,700.00
38)	 P/F of 3000 VA, 36 volts Multi sine wave Inverter with following specifications: MICRO-CONTROLLER/DSC BASED Intelligent Control Design Pure Sine Wave Output PWM Controlled multistage ATM (Automatic Trickle Mode) Charging Display Indications (Status & Fault) Smart Overload Sense and Short Circuit Protection Easily Serviceable Auto Reset Feature Input voltage: 120-260 volts Output voltage: 220 volts 	16,650.00

	P/F of 4000VA , 48 volts Multi sine wave Inverter with following	
	specifications:	
	MICRO-CONTROLLER/DSC BASED Intelligent Control Design	
	-	
	PWM Controlled multistage ATM (Automatic Trickle Mode) Charging	
202	Display Indications (Status & Fault)	
39)	Smart Overload Sense and Short Circuit Protection	22,500.00
	Easily Serviceable	22,500.00
	Auto Reset Feature	
	Input voltage: 120-260 volts	
	Output voltage: 220 volts	
	2 years warranty	
	P/F of 6000VA , 72 volts Multi sine wave Inverter with following	
	specifications:	
	MICRO-CONTROLLER/DSC BASED Intelligent Control Design	
	Pure Sine Wave Output	
	PWM Controlled multistage ATM (Automatic Trickle Mode) Charging	
40)	Display Indications (Status & Fault)	25,000.00
10)	Smart Overload Sense and Short Circuit Protection	
	Easily Serviceable	
	Auto Reset Feature	
	Input voltage: 120-260 volts	
	Output voltage: 220 volts	
	2 years warranty	
	Supply, Installation, commissioning and Testing of Single In Single Out 10KVA stand alone/rack mountable working on, IGBT based double conversion digitally	
	controlled microprocessor system, with with SNMP card & LCD display with	
	Two year warranty Make(APC,)	
	Specifications:	
	1. Technology: IGBT-PWM	
	2. AC Input Voltage : 192V AC ± 5V AC,	
	3. Output Voltage : 220V AC Phase to Nuetral ± 5% Voltage	
	Regulation ± 1%	
	4. Frequency 50Hz ±0.05Hz(Crystal Controlled)	
	5. Waveform Pure Sine wave	
41)	6. Efficiency > 92 %	
,	7. 20% overload limit for min 10 minutes.	
	Battery Bank: (Sealed Maintenance Free Batteries, 3 year warranty)	
	Nominal voltage: 12 Volts.	
	Rated capacity: 65 Ampere Hour (Ah).	
	Dimensions	
	Height (with terminals): 175 mm	
	Length: 351 mm	
	Width: 167 mm	
	No. of batteries: 16 Nos (Make: Amaron/Exide/or equivalent)	
	And of patterness. To most france, and on participation of the patterness of the pat	

	from UPS to Battery Bank through battery Circuit Breaker and MS open rack with Two years Maintenance.	
	Protections:	
	 An Electronics Circuit with Digital Logics must Continuously Searches for the following Faults & Trips the system with Audio – visual Indication 1. Battery over Voltage 2. Battery Under Voltage 3. Input AC Over Voltage 4. Output Overload /short Circuit 	
	Indications: • Main On	4,15,000.00
	 Load On Battery Battery Low Inverter Over load 	
	 Load On Main Battery Boost Battery Level Graph Load Level Graph 	
	Features: Advanced Battery Management (ABM) for Longer Battery Life & Quick Charging, Auto Self Test on LCD Display, Best Suited for most High Capacity Sophisticated Appliances, LCD Panel Display for Status and Faults, Static By Pass Switch for fast Switch Over.	
	Supply, Installation, commissioning and Testing of Single In Single Out 6 KVA stand alone/rack mountable working on, IGBT based double conversion digitally controlled microprocessor system, with with SNMP card & LCD display with Two year warranty Make(APC,) Specifications:	
	 8. Technology: IGBT-PWM 9. AC Input Voltage : 192V AC ± 5V AC, 	
	 10. Output Voltage : 220V AC Phase to Nuetral ± 5% Voltage Regulation ± 1% 11. Frequency 50Hz ±0.05Hz(Crystal Controlled) 	60,500.00
42)	 12. Waveform Pure Sine wave 13. Efficiency > 92 % 14. 20% overload limit for min 10 minutes. 	
	 <u>Protections:</u> An Electronics Circuit with Digital Logics must Continuously Searches for the following Faults & Trips the system with Audio – visual Indication 1. Battery over Voltage 	
	2. Battery Under Voltage 3. Input AC Over Voltage	

43)	Supply, Installation, commissioning and Testing of Single In Single Out 2KVA stand alone/rack mountable working on, IGBT based double conversion digitally controlled microprocessor system, with with SNMP card & LCD display with Two year warranty Make(APC,) Specifications: 15. Technology: IGBT-PWM 16. AC Input Voltage : 72/96V AC ± 5V AC, 17. Output Voltage : 220V AC Phase to Nuetral ± 5% Voltage Regulation ± 1% 18. Frequency 50Hz ±0.05Hz(Crystal Controlled) 19. Waveform Pure Sine wave 20. Efficiency > 92 % 21. 20% overload limit for min 10 minutes. Protections: An Electronics Circuit with Digital Logics must Continuously Searches for the following Faults & Trips the system with Audio - visual Indication 1. Battery over Voltage 2. Battery Under Voltage 3. Input AC Over Voltage 4. Output Overload /short Circuit	25,700.00
44)	P/F of VRLA-Dry sealed Maintenance free batteries of 12 volts of capacity 42 Ampere hour Ah. Make: Amaron/Exide	7,800.00
45)	P/F of VRLA- Dry sealed Maintenance free batteries of 12 volts of capacity 65 Ampere hour Ah . Make: Amaron/Exide	9,500.00
46)	P/F of 1200mm sweep Metallic ceiling fan with 300 watt 5 step regulator of and hook for fan. The job includes providing of fan hook in wooden/concrete ceiling wherever needed. Complete in all respects.	2000.00
47)	P/F of 1400mm sweep Metallic ceiling fan with 300 watt 5 step regulator of and hook for fan. The job includes providing of fan hook in wooden/concrete ceiling wherever needed. Complete in all respects.	2,500.00
48)	P/F of 1200mm sweep Decorative Oyster-Matallic/Fussion-II Metallic ceiling fan with 300 watt 5 step regulator and hook for fan. The job includes providing of fan hook in wooden/concrete ceiling wherever needed. Complete in all respects.	3,700.00
49)	P/F of 1200mm sweep Decorative TYRO / QITE / ASPIRE / ROVER (make standard) Premium Metallic ceiling fan with 300 watt 5 step regulator and hook for fan. The job includes providing of fan hook in wooden/concrete ceiling wherever needed. Complete in all respects.	4,200.00
50)	P/F of 1400mm sweep Decorative Oyster-Matallic/Fussion-II Metallic ceiling fan with 300 watt 5 step regulator and hook for fan. The job includes providing of fan hook in wooden/concrete ceiling wherever needed. Complete in all respects.	3500.00
51)	P/F of 300 mm Sweep Heavy Duty Crompton Greaves Exhaust Fan (metal type) in existing opening, including making good the damage, connection, testing, commissioning etc. as required. Complete in all respects.	3000.00
52)	P/F of 450 mm Sweep, single phase 4 pole Heavy Duty Crompton Greaves Exhaust fan (metal type) in existing opening, including making good the damage, connection, testing, commissioning etc. as required. Complete in all respects.	5100.00

53) s	P/F of 400 mm sweep, speed 2400 RPM Swing GYRO Cabin Fan with 300 Watt 5 tep regulator of Modular Series. Complete in all respects.	3000.00
	P/F of 400 mm sweep , Speed 2100 RPM SDX Black Gold Wall Fan with 300 Watt step regulator of Modular Series. Complete in all respects.	2500.00
55) w	P/F of 400 mm sweep Swing Wall Fan of Havells or equivalent Khaitan make with 300 Watt 5 step regulator of Pointer/ havells/Anchor make. Complete in ll respects.	2700/-
	· ·	und Power Cabl
S	upplying and laying of one XLPE insulated & PVC sheathed aluminum	
56) R s	and cushioning, protective covering and refilling the trench etc as required. Complete in all respects.	
	× 16 sq mm	175.00
58) 4	× 25 sq mm	235.00
59) 4	× 35 sq mm	310.00
60) 4	× 50 sq mm	375.00
61) 4	× 70 sq mm	520.00
,	× 95 sq mm	635.00
,	× 120 sq. mm	780.00
,	× 150 sq. mm	950.00
,	× 185 sq. mm	1180.00
,	1× 240 sq. mm	1470.00
,	× 300 sq. mm	1795.00
,	× 400 sq. mm	2450.00
69) c	upply and Laying of PVC Insulated and FR PVC round sheathed, armoured opper conductor industrial cable of 1.1kv grade of following sizes in suitable ize conduits. Complete in all respects.	
	core 1.5 sq mm cable	128.00
	core 2.5 sq mm cable	155.00
	core 4 sq mm cable	175.00
	core 6 sq mm cable	275.00
-	core 10 sq mm cable	456.00
75) 3	core 16 sq mm cable	722.00
,	core 4 sq mm cable	234.00
-	core 6 sq mm cable	350.00
	core 10 sq mm cable	605.00
	core 16 sq mm cable	940.00
80) fi	upplying and Laying DWC HDPE pipe as per IS14930 (Part-II) complete with itting and accessories in ground at the depth of 75cm laying of cable including xcavation and refilling the trench etc as required.	
	OD)/ (ID) 50mm / 39mm	145.00
	OD)/ (ID) 90mm /76mm	190.00
- , .	OD)/(ID)120mm/103mm	255.00
	Street Lights / Luminaries / Tube-ligh	
	OLAR LIGHT	. 5
84) S	upply of LED Post Top with a system lumen output of 2000 lumens and a	

lifetime of 25,000 burning hours at L70. The luminaire should have a color temperature of 4000K and CRI > 70. The luminaire shall meet IP65 with THD < 20% and PF > 0.9. The luminaries shall have closed diffused optics with polycarbonate diffuser board. The total power consumption should not exceed 30W (including driver). Similar to Philips Make LED POST TOP G3 "BGP161 LED2500/NW PSU 220-240V 7043 IN Sports Lights (BVP410.Phillips): Supply of LED based Flood light, housing made up of pressure die cast aluminum Alloy with effective thermal management, sturdiness and embossed brand name/logo name of manufacturer. The fixture should have a minimum system efficacy of 100 lumen/Watt and a minimum system lumen output of 16500 lumens and maximum system wattage of 165 Watts. The fixture shall have a CRI of minimum 70. The fixture should have asymmetric/ symmetric narrow beam and Narrow beam angle options available. The fixture shall be designed for a system life of 50,000 hours @70% lumen maintenance. Ingress Protection of IP66 (lamp and gear Compartment) and Mechanical Impact Resistance Rating of IK >=05.The fixture driver should have an operating voltage range of 140-270 V, surge protection of >=3KV, PF >0.9 and THD<20%. The fixture should comply with the parameters as per IS10322. The LED driver should comply to IEC61000-3-2 ed.3.2, 2009 for Harmonics, IEC61347 -2 -13, 2006 in Conjunction with IEC61347-1 ed.2.0, 2007 for Electrical Safety, IEC62384 ed 1 2011 for performance and IEC61547 ed 2 0 2009 CISPR-15	21,000.00
for EMI. Manufacturer shall have in-house lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from a NABL/UL accredited lab to verify above parameters. Similar to Philips BVP410 complete in all respects	25,500.00
Street Light (Type BRP410, Phillips): Supply of LED based Flood light, housing made up of Pressure Die Cast Housing LM 6 Alloy/ Anti Dust Exposed Lens, sturdiness and embossed brand name/logo name of manufacturer. The fixture should have a minimum system efficacy of 100 lumen/Watt and a minimum system lumen output of 7200 lumens and maximum system wattage of 72 Watts. The fixture shall have a CRI of minimum 70. The fixture shall be designed for a system life of 50,000 hours @70% lumen maintenance. Ingress Protection of IP66 (lamp and gear Compartment) and Mechanical Impact Resistance Rating of IK >=05.The fixture driver should have an operating voltage range of 140-270 V, surge protection of >=3KV, PF >0.9, THD<20% and SDCM<5. The driver should be BIS approved, fully potted and encapsulated .The fixture should comply with the parameters as per IS10322. The LED driver should comply to IEC61000-3-2 ed.3.2, 2009 for Harmonics, IEC61347 -2 -13, 2006 in Conjunction with IEC61347-1 ed.2.0, 2007 for Electrical Safety, IEC62384 ed.1.1, 2011 for performance and IEC61547 ed.2.0, 2009, CISPR-15 for EMI. Manufacturer shall have in-house lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from a NABL/UL accredited lab to verify above parameters. Similar to Philips CAT No BRP410 LED CW 072 MR FG S1 PSU GR. Complete in all respects	18,900.00
P/F of 25 Watt LED ROCKET BULBs B22/E27/E40 base, 6500k, Input Volt (AC 90-300V) >100 lumens per watt with Aluminum and thermoplastic glass	1050.00
P/F of 35 Watt LED ROCKET BULBs B22/E27/E40 base, 6500k, Input Volt (AC 90-300V) >100 lumens per watt with Aluminum and thermoplastic glass housing and having long life span of upto 50,000 hrs. complete in all respects.	1,250.00
P/F of 45 Watt LED ROCKET BULBs B22/E27/E40 base, 6500k, Input Volt (AC 90-300V) >100 lumens per watt with Aluminum and thermoplastic glass	1,500.00
	temperature of 4000K and CRI > 70. The luminaries shall meet IP65 with THD < 20% and PF > 0.9. The luminaries shall have closed diffused optics with polycarbonate diffuser board. The total power consumption should not exceed 30W (including driver). Similar to Philips Make LED POST TOP G3 "BGP161 LED2500/NW PSU 220-240V 7043 IN Sports Lights (BVP410.Phillips) : Supply of LED based Flood light, housing made up of pressure die cast aluminum Alloy with effective thermal management, sturdiness and embossed brand name/logo name of manufacturer. The fixture should have a minimum system efficacy of 100 lumen/Watt and a minimum system lumen output of 16500 lumens and maximum system wattage of 165 Watts. The fixture shall have a CRI of minimum 70. The fixture should have asymmetric/ symmetric narrow beam and Narrow beam angle options available. The fixture shall have a CRI of minimum 70. The fixture driver should have an operating voltage range of 140-270 V, surge protection of \sim 34V, PF > 0.9 and THD<20%. The fixture should comply with the parameters as per IS10322. The LED driver should comply to IEC61000-3-2 ed.3.2, 2009 for Harmonics, IEC61347 - 2 -13, 2006 in Conjunction with IEC61347-1 ed.2.0, 2007 for Electrical Safety, IEC62384 ed.1.1, 2011 for performance and IEC61547 ed.2.0, 2009, CISPR-15 for EMI. Manufacturer shall have in-house lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from a NABL/UL accredited lab to verify above parameters. Similar to Philips BVP410. complete in all respects. Street Light (Type BRP10.Phillips) : Supply of LED based Flood light, housing made up of Pressure Die Cast Housing LM 6 Alloy/ Anti Dust Exposed Lens, sturdiness and emborsed brand name/logo name of manufacturer. The fixture should have a minimum system efficacy of 100 lumen/Watt and a minimum system life of 50,000 hors: @70% lumen maintenance. Ingress Protection of 2106 lamp and gear Compartment) and Mechanical Impact Resistance Rating of IX -270 V, surge protection

	housing and having long life gran of unto EO 000 hus some late in all years - to	
	housing and having long life span of upto 50,000 hrs. complete in all respects.	
90)	Supply , installation ,Testing and commissioning of 70W Smart Bright LED Flood Light (White Light) Input Volt (AC 90-300V) > 120 lumens per watt with	7,200.00
	Aluminum and thermoplastic glass housing and having long life span of upto 50,000 hrs. complete in all respects.	
91)	Supply , installation ,Testing and commissioning of 50W Smart Bright LED Flood Light (White Light) Input Volt (AC 90-300V) > 120 lumens per watt with Aluminum and thermoplastic glass housing and having long life span of upto 50,000 hrs. complete in all respects.	4,500.00
	P/F of high lumen LED 6500k (2 ft) wall mounted LED batten, extruded aluminum heat sink provided for efficient heat dissipation & integrated	
92)	electronic driver complete in all respects. Complete in all respects. (Make Phillips TYPE: BN 021 LED25S 6500 PSU GR S1)	1,000.00
93)	P/F of high lumen LED 6500k (4ft ft) wall mounted LED batten, extruded aluminum heat sink provided for efficient heat dissipation & integrated electronic driver complete in all respects. Complete in all respects.	2,250.00
94)	P/F of HIGHER WATTAGE decorative ultra slim square profile LED fixture with high lumen output of 24 W LED 6000k (4 ft) wall mounted LED batten, extruded aluminum heat sink provided for efficient heat dissipation & integrated electronic driver complete in all respects.	450.00
95)	P/F of 2 ft*2ft LED luminaries with URG <19 recess mounted with high lumen output with durable housing with Al heat sink with Diffuser to give glare free light with removable driver. (Make Phillips TYPE RC380B LED30S-6500G4 L60 W60 PSU OD OC)	5,300.00
96)	P/F of 2 ft*2ft LED luminaries with URG <19 recess mounted with high lumen output with durable housing with Al heat sink with Diffuser to give glare free light with removable driver. (Make Phillips TYPE RC380B LED 36 S -6500G4 L60 W60 PSD OD WH OC)	7,300.00
97)	 P/F of Suspended / Surface mounted LED Luminaries with diffused optics, extruded aluminum heat sink provided for heat dissipation and integrated electronic Driver complete in all respects. System efficacy more than 100 Lm/W Superior light quality with CRI more than 80 THD Less than 10% Wide operating voltage 140-270V Suitable for Standalone & Continuous Mounting Option of Dimming available Up-Down lighting distribution Uniform & volumetric light distribution Make: (Philips SP680P LED34S 6500 PSU WH L120 S1) 	7,300.00
98)	 P/F of Suspended / Surface mounted LED Luminaries with diffused optics, extruded aluminum heat sink provided for heat dissipation and integrated electronic Driver complete in all respects. System efficacy more than 100 Lm/W Superior light quality with CRI more than 80 THD Less than 10% Wide operating voltage 140-270V Suitable for Standalone & Continuous Mounting Option of Dimming available Up-Down lighting distribution Uniform & volumetric light distribution 	6,000.00

99)	 P/F of Suspended / Surface mounted LED Luminaries with 135mm diffused compartment, for Armstrong techzone ceiling, extruded aluminum heat sink provided for heat dissipation and integrated electronic Driver complete in all respects. System efficacy more than 100 Lm/W Superior light quality with CRI more than 80 THD Less than 10% Wide operating voltage 140-270V Suitable for Standalone & Continuous Mounting Option of Dimming available Up-Down lighting distribution Uniform & volumetric light distribution (Make Philips: RC820B LED 26S 6500 PSU W15 L120 OD SI) 	8,500.00
100)	P/F of Bolt Round LED 6500k, 2000 Lumens Surface/ recess mounted round shaped LED down-lighter with durable housing with Al heat sink with Diffuser to give glare free light with removable driver. Complete in all respects. (Make Phillips TYPE: SM251C LED16S 6500 PSU WH)	1,800.00
101)	P/F of Bolt Round 10W LED 6000k Surface/ recess mounted round shaped LED down-lighter with durable housing with Al heat sink with Diffuser to give glare free light with removable driver. Complete in all respects. (Make Phillips TYPE : DN092B LED10S 6500 PSU WH)	2,200.00
102)	P/F of Bolt Round 15W LED 6500k Surface/ recess mounted round shaped LED down-lighter with durable housing with Al heat sink with Diffuser to give glare free light with removable driver. Complete in all respects.	1,300.00
103)	P/F of Endura LED bulkhead with IP 66 protection and IK08 impact resistance suitable for surface and wall mount luminaries with Opal Diffuser Energy saving. Complete in all respects. (Make Type WT140W LED7S CWPSUS1 PC)	1,050.00
104)	P/F of Endura LED bulkhead with IP 66 protection and IK08 impact resistance suitable for surface and wall mount luminaries with Opal Diffuser Energy saving. Complete in all respects. (Make TypeWT202W LED6SNW PSUS2PC)	1,670.00
105)	P/F of Endura City liner Neo 48W LED 6000k, energy saving & environmental friendly long life Versatile pressure die-cast aluminum IP65 roadway/street light luminarie with high power LED as light source and Electronic Driver.(Suitable for pole dia 35mm max). Complete in all respects.	8,000.00
106)	P/F of 45 watt CFL spiral type.	350.00
107)	Supply Installation of 2.5 meter ornamental pole (Antique IV) of mild steel (grooved) with cast iron base of Hi-Lite / Homedec /Jaguar make and embellishment having corrosion and UV resistant coating, including cost of concrete foundation and foundation bolts. Complete in all respects.	12,500.00
108)	Supply, Installation and commissioning of ornamental 2 arm bracket for installation of multiple lights and cast Aluminum lighting fixture with mild steel bracket having integral 25W LED lighting source with acrylic diffuser. The fixture shall have corrosion and UV ray resistant coating shall be compatible with the specified pole shall have stainless steel crews and shall be ingress protection of IP. Complete in all respects.	6,500.00
109)	Supply Installation of 3 meter ornamental/Decorative pole (Antique III) of mild steel (grooved) with cast iron base of Hi-Lite / Homedec /Jaguar make and embellishment having corrosion and UV resistant coating, including cost of concrete foundation and foundation bolts. Complete in all respects.	8,500.00
110)	Supply, Installation and commissioning of ornamental/Decorative 2 arm bracket for installation of multiple lights and cast Aluminum lighting fixture with mild	

	steel bracket having integral 25W LED lighting source with acrylic diffuser. The	
	fixture shall have corrosion and UV ray resistant coating shall be compatible	
	with the specified pole shall have stainless steel crews and shall be ingress	4,500.00
	protection of IP. Complete in all respects.	
	Supply, Installation and commissioning of 3.5 meter Aesthetically designed	
111)	havells make (ordering code LHMP02135099) decorative hot dipped galvanized	
	mild steel steep pole with grey powder finish. The job includes fixing of 25W	
	600k LED with suitable circuit. Complete in all respects.	15,000.00
112)	Supply, Installation and commissioning of long life aesthetically designed	
112)	aluminum landscape luminaries (Bamboo-IP 65 ,) for diffused lighting with	6,500.00
	high power LED (15W, 5700k) as light source. Complete in all respects. Supply, Installation and commissioning of long life aesthetically designed	0,500.00
112)	aluminum landscape luminaries (CONE-IP 65 ,) for diffused lighting with high	
115)	power LED (15W, 5700k) as light source. Complete in all respects.	6,500.00
	Supply of LED Ground Mounted Bollard 0.5m height with a system lumen output	0,500.00
	of 300 lumens and a minimum system efficacy of 35 lm/W. The luminaire shall	
	have a rated system lifetime of 25,000 burning hours at L70. The luminaire	
	should have a color temperature of 4000K and CRI>75. The luminaire shall meet	
114)	IP65 & IK10 rating with THD < 20% and PF > 0.9. The luminaire bousing should	
	made of pressure die cast aluminium with polycarbonate diffuser. The total	
	power consumption should not exceed 7W (including driver).	
	Philips Make LED BOLLARD II "BCP150 LED150/NW PSU 220-240V 7043"	12,000.00
	Supply of CITY CUBE BOLLARD DLED Ground Mounted Bollard 0.5m height with	
	a system lumen output of 300 lumens and a minimum system efficacy of 35	
	lm/W. The luminaire shall have a rated system lifetime of 25,000 burning hours	
	at L70. The luminaire should have a color temperature of 4000K and CRI>75.	
115)	The luminaire shall meet IP65 & IK10 rating with THD < 20% and PF > 0.9. The	12,500.00
	luminaire housing should made of pressure die cast aluminium with	
	polycarbonate diffuser. The total power consumption should not exceed 7W	
	(including driver).	
	(PHILIPS MAKE CITYCUBE BOLLAED D BCP400 LED09 D CW PSU GR S1)	
	Supply, Installation and commissioning of 40W LED 6000k (Industrial	
116)	luminaries) long life Endura Well Glass NEO-IP65, vertical/horizontal surface	4,500.00
110)	mounting or suspended type pressure die cast aluminum with high power LED	
	light source. Complete in all respects.	
	MCCBs/MCBs/LT	Distribution Panels
	P/F of 4- pole, 800 Amp. MCCB (Adjustable type) compact NS, $lcu = 50kA$ as per	65,500.00
117)	IEC 60947-2 (cat no. INA_3P33466E) fixed type having electronic trip unit with	
-	adjustable overload protection 0.4-1 xIn of Schneider / Legrand/L&T including	
	spreaders of same rating. Complete in all respects.	F1 F00 00
	P/F of 4- pole, 630 Amp. MCCB (Adjustable type) Easypact CVS, lcu = 50kA (cat	51,500.00
118)	no. LV563316) fixed type with Ics = 100% Icu as per IEC 60947-2of	
	Schneider/Legrand/L&T make including spreaders of same rating. Complete in	
	all respects. P/F of 4- pole, 400 Amp. MCCB (Adjustable type) Easypact CVS, lcu = 50kA (cat	
119)	no. LV540316) fixed type with with $Ics = 100\%$ Icu as per IEC 60947-2of Schneider (Legrand /L & T make including spreaders of same rating Complete in	11 EOO OO
,	Schneider /Legrand/L&T make including spreaders of same rating. Complete in all respects	41,500.00
	all respects. P/F of 4- pole, 250 Amp. MCCB (Adjustable type) Easy pact CVS, lcu = 36kA (cat	
	no. LV525333) fixed type with with Ics = 100% Icu as per IEC 60947-20f	
120)	Schneider /Legrand/L&T make including spreaders of same rating. Complete in	26,750.00
-	all respects.	20,730.00
	an respects.	

121)	P/F of 4- pole, 160 Amp. MCCB (Adjustable type) Easy pact CVS, lcu = 25kA (cat no. LV516303) fixed type with with Ics = 100% Icu as per IEC 60947-2 of Schneider /Legrand/L&T make including spreaders of same rating. Complete in all respects.	16,850.00
122)	P/F of 4- pole, 125 Amp. MCCB (Adjustable type) Easy pact CVS, lcu = 25kA (cat no. LV516303) fixed type with with lcs = 100% lcu as per IEC 60947-2 of Schneider /Legrand/L&T make including spreaders of same rating. Complete in all respects.	12,800.00
123)	P/F of 4- pole, 100 Amp. MCCB (Adjustable type) Easy pact CVS, lcu = 25kA (cat no. LV516303) fixed type with with lcs = 100% lcu as per IEC 60947-2 of Schneider /Legrand/L&T make including spreaders of same rating. Complete in all respects.	11,900.00
124)	63/40 A Amps. 4P MCCB of breaking capacity 25 KA (Cat No: LV510305) with thermal magnetic release ICU=Ics=100%, necessary spreader terminals and phase barriers on incoming & outgoing side complete as required (for out going).	11,500.00
125)	Supplying, installing on wall testing & commissioning of following capacity rising mains made of 1.6 mm thick double door sheet steel enclosure duly painted with powder coating, wall straps, fully PVC insulated 4 Nos Aluminum bus bars in convenient sections & suitable for 415 volts(with voltmeter), 3 phase (with indicators), 4 wire, 50HZ, A.C. Supply with extension joints, fire proof barriers, expansion joints, thrust pads including jointly & earthing with 2 runs of galvanized iron strips etc as required.	
126)	200A 4-Strip Aluminum Busbar	9,500.00
127)	Supplying, installing on wall testing & commissioning of following capacity rising mains made of 1.6 mm thick double door sheet steel enclosure duly painted with powder coating, wall straps, fully PVC insulated 4 Nos Aluminum bus bars in convenient sections & suitable for 415 volts(with voltmeter), 3 phase (with indicators), 4 wire, 50HZ, A.C. Supply with extension joints, fire proof barriers, expansion joints, thrust pads including jointly & earthing with 2 runs of galvanized iron strips etc as required.	
128)	100A 4-Strip Aluminum Busbar	8,200.00
129)	Supplying, installing on wall testing & commissioning of following capacity rising mains made of 1.6 mm thick double door sheet steel enclosure duly painted with powder coating, wall straps, fully PVC insulated 4 Nos Aluminum bus bars in convenient sections & suitable for 415 volts(with voltmeter), 3 phase (with indicators), 4 wire, 50HZ, A.C. Supply with extension joints, fire proof barriers, expansion joints, thrust pads including jointly & earthing with 2 runs of galvanised iron strips etc as required.	
130)	400 A 4-Strip Aluminum Busbar	13,500.00
131)	Supplying and Laying of one No. HT. cable of 11 KV grade XLPE armoured Al. Conductor earthed conforming to IS 7098 (Part II) and of size 3 X 240 sq mm in the suitable pipe /masonry open duct enclosed with iron plate etc as required.	3,100.00
132)	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs and other jointing material for 3 x 240 Sq mm. XLPE aluminum conductor cable of 11 KV grade as required.	9,500.00
133)	Supplying and fixing 63 A rating, 240/415 V, 16kA "C"curve, Double Pole miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.	1,600.00

134)	Supplying and fixing 40A-63A rating, 415 V, 16kA "C"curve, Four Pole Miniature Circuit Breaker suitable for Heavy inductive load ,in the MCB DB complete with connections, testing and commissioning etc. as required.	3,700.00
135)	Digital Voltmeter with selector switch and LED indication lights on each phase protected by HRC back up fuses MCBs.	3,000.00
136)	Digital Ampere meter Along with selector switch and suitable rating/ratio of current transformers.	2,000.00
137]	Supplying, installation, testing & commissioning of factory assembled Dust & Vermin Proof wall / floor mounted LT cubical type compartmentalized panel of 600 A TPN Aluminum Busbar panel (CPRI Approved) fabricated out of 2 mm thick MS sheet, 300 mm Deep with locking arrangement, cable alleys, bus bar chamber etc powder coated self supported suitable for 3 phase 4 wire, AC supply, i/c supplying & fixing following accessories as detailed below, i/c bus bars connections / inter connections to MCCB compartments , arrangement for cable entry, supports, end terminations, 2 Nos. earthing stud inter connection with 25mm x 5mm GI strip (externally), painting, etc. complete as required. The compartmentalized panel consisting of 3 Nos of outgoing compartments for 200 A MCCBs with a minimum space of 250 mm between each outgoing compartments. (panel should be 2.5 feet above ground including Iron Stand as per requirement & as and when required))	41,500/sq mtr
138	Supplying, installation, testing & commissioning of factory assembled Dust & Vermin Proof wall / floor mounted LT cubical type compartmentalized panel of 400A TPN Aluminum Busbar panel (CPRI Approved) fabricated out of 2 mm thick MS sheet, 300mm Deep with locking arrangement, cable alleys, bus bar chamber etc powder coated self supported suitable for 3 phase 4 wire, AC supply, i/c supplying & fixing following accessories as detailed below, i/c bus bars connections / inter connections to MCCB compartments , arrangement for cable entry, supports, end terminations, 2 Nos. earthing stud inter connection with 25mm x 5mm GI strip (externally), painting, etc. complete as required. The compartmentalized panel consisting of 3 Nos of outgoing compartments for 200 A MCCBs with a minimum space of 250 mm between each outgoing compartments. (panel should be 2.5 feet above ground including Iron Stand as per requirement & as and when required)	37,500/sq mtr
139]	Supplying, installation, testing & commissioning of factory assembled Dust & Vermin Proof wall / floor mounted LT cubical type compartmentalized panel of 200 A TPN Aluminum Busbar panel (CPRI Approved) fabricated out of 2 mm thick MS sheet, 300mm Deep with locking arrangement, cable alleys, bus bar chamber etc powder coated self supported suitable for 3 phase 4 wire, AC supply, i/c supplying & fixing following accessories as detailed below, i/c bus bars connections / inter connections to MCCB compartments , arrangement for cable entry, supports, end terminations, 2 Nos. earthing stud inter connection with 25mm x 5mmm GI strip (externally), painting, etc. complete as required. The compartmentalized panel consisting of various outgoing compartments for 63/125/160/ A MCCBs with a minimum space of 200 mm between each outgoing compartments. (panel should be 2.5 feet above ground including Iron Stand as per requirement & as and when required)	25,700/sq mtr
140]	Supply and Installation of Extended rotatary handle panel mounted for MCCBs with clear indication of ON/OFF /Trip Indication and having IP 54 degree of protection. (For 100/160/250A MCCBs)	1,850.00
141]	Supply and Installation of Extended rotatary handle panel mounted for MCCBs with clear indication of ON/OFF /Trip Indication and having IP 54 degree of protection. (For 400/630 A MCCBs)	2800.00

142	Supply and Installation of 3 phase 415 Volt Digital voltmeter and 3-phase Ammeter with separate indicators for each phase mounted on top of the front side of panel including all connections	3,000.00
143]	front side of panel including all connections.SITC of 8 way (100A MCCB + 24) (Ref: A9HVD08L) Double Door Metal (IP-43)VTPN DBs for MCCB Incomer DBs for higher incoming current distribution up to100AIncomer - TP/FP ComPact NSX or EasyPact CVS MCCB up to 100A Outgoing - SPMCBs / TP MCBs	18,500.00
144]	SITC of 12 way (100A MCCB + 36) (Ref: A9HVD12L) Double Door Metal (IP-43) VTPN DBs for MCCB Incomer DBs for higher incoming current distribution up to 100A Incomer - TP/FP ComPact NSX or EasyPact CVS MCCB up to 100A Outgoing - SP MCBs / TP MCBs	23,500.00
145]	SITC of 12 way (160A MCCB + 36) (Ref: A9HVD12M) Double Door Metal (IP-43) VTPN DBs for MCCB Incomer DBs for higher incoming current distribution up to 160A Incomer - TP/FP ComPact NSX or EasyPact CVS MCCB up to 160A Outgoing - SP MCBs / TP MCBs	24,500.00
146	Supplying and fixing 20 A, 240 V, Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith/including 20 A "C" curve, DP MCB (20A 1P+N+E P&S, Ref: A9HMS220). The Metal clad includes Plug & Socket Unit with Electra Plug & Socket and provision to mount modular protection devices to feed the end load directly as required.	2,750.00
147	Supply and Installation of Schneider Electric DM3110-30002385 Three Phase 4 LED display Ammeter with following specifications: Model No: DM3110-30002385 Current input: 50mA-6A Accuracy : 1 Voltage: 90-280V	2,000.00
148)	Supply, Installation, Testing And Commissioning of Air Circuit Breaker 4 pole, 50 Hz, current rating 2500 Amps , 50 KA with microprocessor release type, (Ics : 100% Icu) with Adjustable setting of ground fault, Overload, Short Circuit Protection fitted with spreader links & Phase separators.	2,35,000.00
149)	Supply, Installation ,Testing and Commissioning of HT 12KV, 630 Amps, 3Phase 50Hz, Breaking capacity 26.3 kA, Making Capacity 67 kAp totally metal clad withdraw able type Vacuum Circuit Breaker with Copper bus bar of suitable rating, horizontal isolation type VCB of capacity minimum 630 Amps rated current, as per IEC 62271-100-200.The offered panels shall be tested for IAC level of 21kA/3 sec (CG/Schneider/L&T only) for better performance.	2,70,000.00
150)	Supply, Installation, Testing and commissioning of 7/8 mtrs long octagonal pole galvanized continuously tapered (bolt fixing type) in single section made out of 3mm thick sheet having top dia 70mm and bottom dia 130mm with 4 nos hot dip galvanized foundation bolts of size 20mm dia × 700 long with integral junction box/base plate (200×220×16mm) along with suitable size of GI single arm bracket 1500mm long i/c providing and fixing bakelite sheet of size 25cm×10cm×6cm thick, connector, 2nos al busbar of suitable size and SP MCB of 6 amp rating inside the pole atleast 1.25 mtrs above from bottom of pole complete with door and locking arrangements etc as required. Complete in all respects.	18,500.00
151)	Dismantling of the R.C.C./ pole of 7 meters with brick masonry support and the dismantled material / poles have to dumped or staged by the contractor at a site to be decided by the concerned Division. Complete in all respects.	1850.00
152)	Dismantling of the steel tabular pole/iron pole of 7 meters with brick masonry supports and the dismantled material / poles have to be dumped or staged by	

	the contractor at a site to be decided by the concerned Division. Complete in all respects.	1350.00
	CCTV Cameras, Modules and Switches / Telephone wires	
153)	Supply and Laying of 100 pair jelly filled Armoured telephone cable of 0.5 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. The cable is to be laid drawn by Horizontal Directional Drilling in permanently lubricated Duct (PLB Duct). Complete in all respects.	1050/mtr
154)	Supply and Laying of 50 pair jelly filled Armoured telephone cable of 0.5 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. The cable is to be laid drawn by Horizontal Directional Drilling in permanently lubricated Duct (PLB Duct). Complete in all respects.	640/meter
155)	Supply and Laying of 20 pair jelly filled Armoured telephone cable of 0.5 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. The cable is to be laid drawn by Horizontal Directional Drilling including permanently lubricated Duct (PLB Duct). Complete in all respects.	270/meter
156)	Supply and Laying of 10 pair jelly filled Armored telephone cable of 0.5 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. Complete in all respects.	215/meter
157)	Supply and Laying of 10 pair jelly filled unarmored telephone cable of 0.4 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, laid in PVC pipe as and when required.Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. Complete in all respects.	115/meter
158)	Supply and Laying of 5 pair jelly filled unArmoured telephone cable of 0.4 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, laid in PVC pipe as and when required.Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. Complete in all respects.	75/Meter
159)	Supply and Laying of 2 pair jelly filled unArmoured telephone cable of 0.4 mm copper conductor Dia with Soft-Annealed Solid Electrolytic Copper, laid in PVC pipe as and when required. Inner sheath - PVC/ HR PVC/ FRLS Zero Halogen and Outer sheath - PVC/HR PVC/FRLS. Complete in all respects.	35/mtr
160)	SITC of Havells Speaker Cable of 2 X 0.5 SQ. mm IND. 1.1 kV CABLE in recessed/surface in PVC conduit of suitable size (Havells transparent FR PVC insulated, twin core copper conductor (Flexible) Industrial Speaker cable).	40/mtr
161)	Supply, Installation ,Testing and commissioning of SITC of 1/3-INCH CMOS OR CCD digital color ip dome Poe network camera ,H.264 video .1080 P ,Tri- streaming : Dual H. 264 and M-jpeg simultaneously for lowlight situations with 3-9 mm vari-focal lens. Make: Bosch model NII-50022-V3	83,000.00
162)	Supply, Installation, Testing and commissioning of SITC of 1/3 inch CCD digital color bullet camera with outdoor ip 66housing and vari focal mega pixel lens Poe network camera , H.264 video .1080 P ,Tri-streaming : Dual H. 264 and M - jpeg simultaneously for lowlight situations with 3-9 mm vari-focal lens. Make: Bosch model NTI-50022-V3	92,000.00
163)	Supply, Installation ,Testing and commissioning of 20x optical zoom range + 12x digital zoom with day/night outdoor 1080p full hd PTZ Auto dome outdoor camera ,Tri-streaming : dual H.264 video .1080 P ,Tri-streaming : Dual H. 264 and M -jpeg simultaneously for lowlight situations ,sector blanking ,99 presets,2	2,87,000.00

	types of tour, pole mount . Make: Bosch (vG5-7220-epc4+vg4-A_PA2@3+ VG4_A_9541)	
164)	Supply, Installation ,Testing and commissioning of INDUSTRAIL GRADE 8 port Manageable POE network switch, layer 3 type with 2 Nos of SFP ports (SM/MM) and supports both SM/MM Fibre. complete in all respects. Make: allied, D-link, Cisco	85,000.00
165)	Purchase, Support and Installation of Bosch Camera Software license (Omnicast) for CCTV Survillance System. complete in all respects.	3500/lic
166)	1 G- MULTIMODE FIBER DUBLEX SFP MODULE with following Features1 Gigabit bi-directional performance,Multi-mode Mini GBIC module operates at 850nm,Duplex LC connector,Maximum transmission distance of 550 meters,Use with OM2 fiber, ,Hot pluggable. complete in all respects. Make: Cisco, Allied, Legrand.	15,500.00
167)	Supply, laying, ,Testing and commissioning of full jacket armoured multimode/Single mode OFC cable to be laid at a depth of 2.5 feet in the steel/PVC/GI conduit/DLP trunking / DWC pipe with necessary connector ,etc. complete in all respects.	220/Mtr
168)	Splicing and Termination of multimode OFC cable of each core.	400/ core
169)	Supply and fixing of LC (Lucent Connector) and SC (Subscriber connector) cables (Fibre patch cords) of length upto 3 mtrs.	1,050.00
170)	Splicing and Termination box Tiffon type. The box must be dust and water proof. Complete in all respects	550.00
171)	Splicing and Termination box Bottle type. The box must be dust and water proof. Complete in all respects.	850.00
172)	Laying of OFC through Horizontal Directional Drilling including Single PLB (Duct of suitable size) at a suitable depth upto 1.5 mtrs including refilling of sand as required. Complete in all respects.	550.00
173)	Smoke Detector with built in LED, mounting base complete with all connection etc.	750/-
174)	Manual call boxes of MS Type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc.	350/-
175)	SITC of high intensity weather resistant wailing type electronic hooter with sound output of 100-110 dB at 1 mtr , suitable for outdoor applications and suitable for operation on suitable DC supply (including batteries) whichever is needed including connections. Complete in all respects.	1750/-
176)	 2 Zone fire alarm control panel as per IS: 2189 with backlit LCD Display. (Non addressable, conventional) TECHNICAL SPECIFICATIONS: Panel Operating Condition Operating Voltage AC Power 220v AC, 50Hz ± 10% Standby 24v DC Operating, Temperature 0°C to 40°C Operating Humidity 95% (non-condensing) Zone Operating Condition Normal Loop Voltage23v DC. Outputs Hooter Output1 A (24v DC) (Normal)NB Hooter output current can be increased as per customer requirement. (Note: The panel be provided with batteries having atleast 6-8 hours backup time). Complete in all respects. 	15,500/-
177)	Supply,Installation,Testing and Commissioning of 50 Pair Telephone Junction box: Capacity : 50 pairs , Water proof performance IP45 level,frame plate, UV protection, Key lock or screw are choosable, Material of Construction: Steel, Length: 380 mm,Width:300 mm, Height: 130 mm, Technique :Cold Rolled , Modular telecom box: Designed to support the 237A IDC module Base and quick release cover included Base has ample provision for jumper rings etc ,50 pair LSA-PLUS® modules which contain a one piece contact providing a continuous	5,500.00

	link between wiring. The panel may be mounted on Galvanised Iron Stand of 2 feet above the ground.	
	Make: Krone, ABS or Equivalent	
178)	Supply,Installation,Testing and Commissioning of 100 Pair Telephone Junction box with krone connectors: Capacity : 100 pairs , Water proof performance IP45 level,frame plate, UV protection, Key lock or screw are choosable, Material of Construction: Steel, Length: 380 mm,Width:300 mm, Height: 130 mm, Technique :Cold Rolled , Modular telecom box: Designed to support the 237A IDC module Base and quick release cover included Base has ample provision for jumper rings etc ,50 pair LSA-PLUS® modules which contain a one piece contact providing a continuous link between wiring. The panel may be mounted on Galvanised Iron Stand of 2 feet above the ground.	9,500.00
179)	Make: Krone, ABS or Equivalent Supply,Installation,Testing and Commissioning of 20 Pair Telephone Junction box: Capacity: 20 pairs, Water proof performance IP45 level,frame plate, UV protection, Key lock or screw are choosable, Material of Construction: Steel, Length: 380 mm,Width:300 mm, Height: 130 mm, Technique :Cold Rolled , Modular telecom box: Designed to support the 237A IDC module Base and quick release cover included Base has ample provision for jumper rings etc ,50 pair LSA-PLUS® modules which contain a one piece contact providing a continuous link between wiring. Make: Krone, ABS or Equivalent	4,500.00
180)	Supply,Installation,Testing and Commissioning of MDF Telephone Junction box/Pillar with krone connectors : base for termination of 1000 telephone connections including providing of Krone modules and there bases termination of Capacity : 1000 pairs, Water proof performance IP45 level,frame plate, UV protection, Key lock or screw are choosable, Material of Construction: Steel, Length: 380 mm,Width:300 mm, Height: 130 mm, Technique :Cold Rolled , Modular telecom box: Designed to support the 237A IDC module Base and quick release cover included Base has ample provision for jumper rings etc ,1000 pair LSA-PLUS® modules which contain a one piece contact providing a continuous link between wiring. The panel may be mounted on Galvanised Iron Stand of 2 feet above the ground. Make: Krone, ABS or Equivalent	25,000.00
181)	Supply, Installation, Testing and Commissioning of outdoor feeder panel with concrete base for termination of 1000 telephone connections including providing of Krone modules and there bases and 5 stage LED integrated protection modules on 500 connections, Water proof performance IP45 level, frame plate, UV protection, Key lock or screw are choosable. The panel may be mounted on Galvanised Iron Stand of 2 feet above the ground. Complete in all respects.	1,35,000.00
182)	Supply, Installation ,Testing and commissioning of +48V 3.3A Industrial Switch Mode power supply(SMPS) with Aluminum casing, High quality. Compatible to layer 2 switches Input Voltage: 230V AC Power Rating: 240W Dimension : 215mm*114mm*49mm (L*W*H) MAKE: OMIRON,MEANWELL, ALLIED	6,000.00

183)	Complete Servicing and Testing of Air Circuit Breaker (ACB) of 420V, 1250A rating, including providing of Shunt Coils, Tripping coils and UV Coils. Complete in all respects.	15,500/-
184)	Servicing and Testing of 300kVAR Automatic Power Factor Correction (APFC) panel including changing of defunct and damaged Capacitors of suitable ratings. The job includes making the meters functional and all the parameters should be displayed. Complete in all respects.	16,400/-
185)	Testing/Repairing of Remote Tap Changing Control (RTCC) panel. The job includes making the meter functional and all the parameters should be displayed. Complete in all respects.	14,700/-
186)	Complete Servicing and Testing of On-Line/On-Load Tap Changer (OLTC) panel of 1500kVA Transformer, checking of oil level, WTI, OTI, proper functioning of Buchholz Relay. Complete in all respects.	42,000/-
187)	Complete Servicing and Testing of HT/LT panel Meters including checking of proper functioning of Multi-Function meters, Master trip relays and other protection relays etc. Complete in all respects.	32,500/-
188)	Serving and Testing of 11kV vacuum Circuit Breaker (VCB). Complete in all respects.	28,500/-
189)	Supply of 24V Dc, 240v Ac Tripping coils = 2 Nos Shunt Coils = 2 Nos UV Coils = 2 Nos	37,200/-

Terms & Conditions:

1. List of Approved Makes

S No.	Items/material	Approved Makes
1.	Wires/Cables.	Polycab / syska /Havells
2.	Switches/sockets/Accessories.	Schneider/Legrand/L&T
3.	Ceiling Fan/Wall Fan/ Cabin Fan.	Havells/ Standard/Usha
4.	MCB / Distribution Boards.	Schneider(Acti9/ Legrand / L&T
5.	MCCB.	Schneider/ Legrand/L&T
6.	ACB/VCB.	Schneider/L&T/C&G
7.	Luminaries including CFL & LED lamp & Tubes Lights/Street Lights	Philips /Wipro/syska
8	LED Television/Smart Panels.	Sony/Samsung/Panasonic
9	Telephone Cables.	Finolex/ Havells/Polycab

Sr. Executive Engineer Electric Maintenance Division