

CANARA BANK

INVITATION TO TENDER

ONLY FOR EMPANEL CONTRACTORS FOR

ELECTRICAL WORKS

(CATEGORY A ,B, C ONLY)

OF

CIRCLE OFFICE KOLKATA

TENDER FROM ANY OTHER CONTRACTOR WILL BE SUMMARILY REJECTED

INSTRUCTION TO BIDERS AND

GENERAL CONDITIONS OF CONTRACT

FOR

ELECTRICAL WORKS

AT

CANARA BANK – BAIDYABATI BRANCH

TENDER NO.: 124/23-24/SP

NAME OF THE CONTRACTOR:

.....

ADDRESS:

.....

SEAL & SIGNATURE OF TENDERER

NOTICE INVITING THE TENDER

To,

M/s

Sealed tenders on item rate basis are invited from panel Contractors for **Electrical Works at BAIDYABATI BRANCH.**

Tender Documents may be obtained at free of cost from the Premises & Estate Section, Circle Office Canara Bank, Kolkata during working hours from 20-02-2024 till 27-02-2024.

Earnest Money Deposit : NIL

Period of completion : 20 days

**Last date, time and place for Submission of tender : On or before 4.00 pm, 27-02-2024 to
The Asst. General Manager,
Premises & Estate section
Canara Bank, Circle Office
Kolkata**

Time and date of opening of tender : 11.00 am on 28-02-2024

The Bank will not be bound to accept the lowest tender and reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

**Asst. General Manager
Premises & Estate Section
Canara Bank, Circle Office
Kolkata**

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Date: 20-02-2024

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GENERAL RULES & INSTRUCTIONS TO TENDERERS

Name of the work: Electrical Works to be carried out at BAIDYABATI Branch.

The rates quoted shall also be inclusive of materials, labour charges, work contract tax, surcharge and all the taxes except GST.

GST WILL BE PAID EXTRA.

The rates quoted by the tenderer shall hold good till the completion of the work from the date of issue of the "WORK ORDER" and no enhancement in the rates are allowed during the period of execution of the work under any circumstances. The rates quoted shall also cover for the work to be executed before and after office hours and also on holidays.

The time stipulated for the completion of the work is 20 days from the date of issue of the WORK ORDER and the work is to be carried out as per the convenience of occupants without disturbing other occupants of the building.

TENDERS:

The entire set of tender paper issued to the tenderer should be submitted fully priced and also signed on the last page together with initials on every page. Initials / signatures will indicate the acceptance of tender papers by the tenderers.

The schedule of quantities shall be filled in as follows:

- The "rate" column to be legibly filled in ink in both English figures and words.
- 'Amount' column to be filled in for each item and the amount for each sub-head as detailed in the "schedule of quantities".
- All corrections to be initialed.
- The "Rate" column for all the items shall be filled up.
- The "Amount" column for the items for which the quantities are not mentioned shall not be filled up.
- In case of any errors / omissions in the quoted rates, the rates mentioned in the tender in words shall be taken as correct rates.

No modifications, over-writings or corrections can be made in the tender papers by the tenderer, but may at his option offer his comment or modifications in a separate sheet of paper attached to the original tender papers.

The Bank reserves the right to reject the lowest or any tender or all of the tenders for each section or to split up and distribute any item of work to any specialist firm or firms, without assigning any reason.

The tenderers should note that tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self – supporting. If called upon by the bank, detailed analysis of any or all the rates shall be submitted. The architects/bank shall not be bound to accept the contractor's analysis.

The Quantity mentioned in the BOQ is approximate measurements. The works will be paid for as "measured work" on the basis of actual work done and not as "lump sum" contract.

All the items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly, related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump-sum charges in the tender in respect of an item of works, the payment of such items of work will be made for the actual work done on the basis of lump-sum charges as assessed to be payable by the architects/bank.

The bank has power to add or delete any work or described in specifications or included in schedule of quantities and intimates the same in writing but no addition, omissions or variation shall be made by the

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contractor without authorization from the bank. No variation shall vitiate the contract. The bank reserves the right to delete any of the items in the tender without assigning any reasons whatsoever.

The tenderer shall note that his tender shall remain open for consideration for a period of 90 days from the date of opening of tender.

AGREEMENT

The successful contractor is required to sign agreement as may be drawn up to suit the local conditions and shall pay for all the stamps and legal expenses incidental thereto. The original will be kept with the Bank and duplicate with contractor.

EARNEST MONEY AND SECURITY DEPOSIT:

There is NO Earnest Money Required to deposite/ submit along with the bids. Retention Money shall be deducted from the final bill at 3% of the gross value of bill. The Retention amount will be refunded to the contractor 15 days after the end of defects liability period provided he has satisfactorily carried out all the work and attended to the entire defect in accordance with the condition of the contract. No interest is allowed on Retention Money.

A part of the Security Deposit if and as decided by the constituent bank can also be furnished in the form of a Bank Guarantee on the bank other than that of the constituent bank.

CONTRACTOR TO PROVIDE EVERYTHING NECESSARY:

The contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of the quantities and specifications taken together weather the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing, refer the same to the Architects/Bank whose decision shall be final and binding.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of works within the contemplation of the contract, and beyond the unit price. No extra payments will be allowed for incidental or contingent labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in tender documents

The contractor shall supply, fix and maintain at his own cost, for the execution of any work, all tools, tackles, machineries and equipments and all necessary scaffolding, staging and lighting by night as well as by day required not only for proper execution and protection of the said work.

The contractor shall take down and remove any or all such scaffoldings as occasion shall be required or when ordered to do so, and shall fully reinstate and make good all matters and things disturbed during the execution of work to the satisfaction of architect/bank.

The contractor shall all times give access to workers employed by the bank or any men employed at site and to provide such parties with proper sufficient and if required, special scaffolding and ladder and provide them lighting as may be required to enable such workmen to inspect the work, lay or fix pipes, Civil & furnishing wiring, special fittings etc. The quoted rates of tenderers shall accordingly include all these above-mentioned contingent works.

LIQUIDATED DAMAGES:

Should the work be not completed to the satisfaction of bank within the stipulated period, the contractor shall be bound pay the bank a sum calculated as given below by way of Liquidated Damages after the expiry of completion date

1.00% of the estimated amount shown in the tender per week subject to a ceiling of 10% of the accepted contract sum.

TIME PERIOD FOR COMPLETION: 20 days from the date of award of work.
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FINAL PAYMENTS

The final bill shall be accompanied by a certificate of completion from the Occupant/Bank Officials. Payments of the final bill shall be made after deduction of retention money as specified in clause 9 of these conditions which sums shall be refunded after the completion of the defects liability period after receiving the banks certificate that the contractor has rectified all defects to the satisfaction of the banks. The acceptance of payments of the final bill by the contractor would indicate that he would have no further claims in respect of the work executed.

ESCALATION:

The rates quoted shall be firm throughout the tenure of the contract [including extension of time, if any granted] and will not be subject to any fluctuation due to increase in cost of materials, labour, sales tax, octroi etc, unless specifically provided in these documents.

CONTRACTORS EMPLOYEES:

The contractor shall employ technically qualify and competent supervisors for the work who shall be available [by turn] throughout the working hours to receive and comply with the instructions of the bank officials. The contractor shall engage at least one experienced engineer, as site in-charge for the execution of the work the contractor shall employ in connection with the work persons having appropriate skill or ability to perform their job efficiently. The contractor shall employ local labours on the work as far as possible. No laborers below age of 16 and who is not an Indian national shall be employed on the work. Any laborers supplied by the contractor to be engaged on the work on day-work basis either wholly or partly under the direct order or control of bank or its representative shall be deemed to a person employed by the contractor.

The contractor shall comply with provision of all labour legislation including the requirements of

- a. Payments of minimum wages act
- b. Employers liabilities
- c. Workmen's compensation act
- d. Contract labour (regulation and abolition) act, 1970 and central rules 1971
- e. Apprentices act 1961
- f. Any other act or enactment relating thereto and rules framed there under from time to time

The contractor shall keep the bank saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the bank in connection with any claim that may be made by any workmen.

The contractor shall comply at his own cost with the order of requirement of any health officer of state or any local authority or of the bank regarding the maintenance of proper environmental sanitary condition of the area.

The contractor shall arrange to provide first aid treatment to the laborers engaged on the works. He shall within 24 hrs of occurrence of any accident at or about the site or in connection with execution of work, report such accidents to the bank and also the competent authority where such report is required by law. The contractor shall obtain all Risk Insurance Policy at their cost within 7 days of commencement of work, for the laborers/workmen working at the site including the work till the work is completed. The policy shall be in the joint name of the Bank and contractor and Bank's name shall appear First.

PAYMENTS:

The contractor, in the form prescribed by the bank shall prepare all the bills and submit the same to Bank with measurement of work. Normally one interim bill shall be prepared each month. Bank may release payment within 15 days of receipt of bills/after check measurement, after deduction of retention money, Income Tax etc. The contractor shall have a competent engineer at site for the supervision of the work.

The contractor shall have to make his own arrangements for watch and ward of the work/building, till the work is handed over to the bank.

The decision of the bank will be final and binding with regard to the quality of work is concerned.

The contractor is responsible for procuring the required materials for the work and stores the same at site at his cost and risk.

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The amount stated in the interim certificate shall be the 75% of total value of the work executed up to date of the bill, less the amount to be retained by the bank as retention money. If the bank has supplied any materials or goods to the contractors, the cost of such materials will be progressively deducted from the amount due to the contractor on accordance with the quantities consumed in the work. All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for works actually done and completed and shall not preclude the requiring of bad, unsound or imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the contract or any part there of if any respect or accruing of any claim nor shall it conclude, determine of effect in any way the power if the bank under conditions or any of them add to the final settlement and adjustment of the accounts or otherwise or in any other way or affect the contract.

The contractor shall submit the final bill within one month from the date of completion of the work. A certificate of completion from the bank shall accompany the final bill. The payment of the final bill shall be made after deduction of retention money as specified elsewhere in these documents.

ARBITRATION:

All disputes or differences of any kind whatsoever which shall at any time arise between the parties here to touching or concerning the works or the execution or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contractor or the construction remaining operation or effect thereof or to the rights or liabilities of the parties are arising out of or in relation thereto whether during or after determination foreclosure or branch of the contract[other than those in respect of which the decision of any person is by the contract expressed to be final and binding] shall after written notice by either party to the contract to the other of them and to the employer hereinafter mention to deal referred for adjudication to a sour arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole arbitrator referred to above, the employer will send within 30 days of receipt of the notice, to the contractor a panel of 3 names of persons who shall be presently unconnected with the organization for which the work is executed.

The contractor shall on receipt of the names as aforesaid, select, anyone of the person's name to be appointed as a sole arbitrator and communicate his name to the employer within 30 days of the receipt of the names. The employer shall thereupon without any delay appoint the person as the sole arbitrator. If the contractor fails to communicate such selection as provided above within the period specified, the competent authority shall make the selection and appoint the selected person as the sole arbitrator.

If the employer fails to send to the contractor the panel of 3 names as a foresaid within the period specified, the contractor shall send to the employer a panel of 3 names of persons who shall be unconnected with either party. The employer shall on receipt of the name as a foresaid select anyone of the person's names and appoint him sole arbitrator. If the employer fails to select the person and appoint him as a sole arbitrator within 30 days of the receipt of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from the panel as the sole arbitrator and communicate his name to the employer.

If the arbitrator as appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed as aforesaid.

The work under contract shall, however, continue during arbitration proceedings and payment due or payable to the contractor shall be withheld on account of such proceedings.

The arbitrator shall be deemed to have entered on the reference the data he issued notice to both the parties fixing the date of the first hearing.

The arbitrator may from time to time, with the consent of parties, enlarge the time or making and publishing the award.

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The arbitrator shall give a separate award of each disputes or difference referred to him. The arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasonable award. The venue of arbitration shall be such place as may be fixed by the arbitrator in his sole discretion.

The fee, if any, of the arbitrator shall, if required to be paid before the award is made and published, be half and half by each of the parties. The cost of the reference and of the award including the fees, if any, of the arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix or settle the amount of costs to be so paid.

The award of the arbitrator shall be final and binding on both the parties.

Subject to aforesaid the provision of the arbitration act 1940 or any statutory modification or re-enactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause.

The employer and the contractor hereby also agree that arbitration under the clause shall be a condition precedent to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

Date:

**Signature of the Contractor
With seal and address**

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ELECTRICAL					
SI.No	DESCRIPTION	UOM	QTY	RATE	AMOUNT
1	DBs & ACCESSORIES				
a	Supply, erection, testing and commissioning of 8 way Vertical sub MCB DB double door made out of 16 SWG CRCA Sheet , dust and vermin proof , wall mounting in recess /surface consisting of the following Make: Legrand/Hager				
	Incomer : 63A 4P 100mA RCCB & 63A 4P MCB Isolator Make: Legrand/Hager				
	Out goings: 25A SP MCB C Curve- 5 Nos,40A TP MCB C curve -2 nos, 20A SP MCB C curve -4 no.s, 16A SP MCB C Curve- 2no.s,Dummy plates Make: Legrand/Hager	E	1.00		
b	Supply, erection, testing and commissioning of 4 way Horizontal TPN MCB DB made out of 16 SWG CRCA Sheet , dust and vermin proof , wall mounting in recess/ surface consisting of the following Make: Legrand/Hager				
	Incomer : 25A 4P 30mA RCCB & 25A 4P MCB Isolator Make: Legrand/Hager				
	Out goings: 6 - 16A SP MCB C Curve - 12 nos Make: Legrand/Hager	E	2.00		
c	Supply and fixing 40 A 4 Pole MCB Change Over with FP enclosure in recess/surafce including all connections are required. Make: Legrand/Hager	E	1.00		
d	Supply and fixing 63 A 4 Pole MCB Change Over with FP enclosure in recess/surafce including all connections are required. Make: Legrand/Hager	E	1.00		
2	WIRING FOR FIXTURES AND PLUG POINTS				
	Wiring for light /fan/ 6A sockets with 2 runs of 1.5Sq mm + 1.5 Sq.mm green PVC insulated FRLS Cu wire in meduim guage PVC conduits / casing capping controlled 6A SP switches of reputed make mounted on galvanized/ PVC boxes fixed on Modular plate in recess / surface including all connections are required. (Make: Legrand Arteur - Switch box & Accessories, RR Kabel / V Guard- FRLS Cu wire, Balco/Precision or ISI marked equivalent - medium gauge conduit & Accessories)				
a	1 light controlled by 1 no. 6A SP switch	E	26.00		
b	2 light controlled by 1 no. 6A SP switch	E	12.00		
c	Wall mounted fan points including 6A socket controlled by 6A switch.	E	8.00		
d	Exhaust fan controlled by 1 no. 6A SP switch using ceiling rose.	E	4.00		
e	Ceiling fan points with step up type 300W electronic regulator & ceiling rose.	E	0.00		
f	6 A plug points 5 pin type (combination in position)	E	7.00		
g	6 A Plug points 5 pin type (Independent position)	E	8.00		
3	POWER POINTS				
a	Supply and fixing of 6/16A combined socket controlled by 1 no. 16A switch in Galvanised metal/PVC Boxes fixed on Modular face plates in recess/Surface including all connection as required. (Rawpower Socket) (Make: Legrand Arteur - Switch box & Accessories, RR Kabel /V Guard- FRLS Cu wire)	E	3.00		

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b	Supply and fixing of 2 nos 6/16A combined socket controlled by independent 16A switch in Galvanised metal/PVC Boxes fixed on Modular face plates in recess/Surface including all connections are required for DATA HUB. (UPS Power socket) (Make: Legrand Arteor - Switch box & Accessories, RR Kabel/V Guard - FRLS Cu wire)	E	1.00		
c	Supply and wiring for 6/16 A socket point using 2 runs of 2.5 Sqm PVC insulated FRLS Cu wire along with 1 run 1.5 sq mm green CU wire as earth conductor through medium gauge PVC conduit in recess/surface including all required connections. (Make: RR Kabel/V Guard - FRLS Cu wire, Balco/Precision or ISI marked equivalent - medium gauge conduit & Accessories)	Mtr	40.00		
4	<u>WIRING FOR CIRCUITS</u>	-			
a	Supply and laying of wiring for Switch boards using 2 x2.5Sq mm PVC insulated FRLS Cu wire along with 1.5 Sq mm green colored Cu earth wire in recess/surface including all required connections from DB to Power sockets (Make: RR Kabel/V Guard - FRLS Cu Wire, Balco - Conduit & Accessories)	Mtr	148.00		
b	Circuit main wiring for lighting circuits of 2 runs of 1.5 Sqmm FRLS Cu wire along with 1.5 Sq.mm green Cu earth wire through medium gauge PVC conduit in recess/surface including all required connections from DB to Light switch board. (Make: RR Kabel/V Guard - FRLS Cu wire, Balco/Precision or ISI marked equivalent-medium gauge conduit & Accessories)	Mtr	268.00		
5	<u>COMPUTER WIRING</u>	-			
a	Supply and erection of 3 nos 6A socket controlled by 1 no 16A switch in Galvanised metal/PVC Boxes fixed on Modular face plates in recess/Surface including all connection as required. (Computer Socket) (Make: Legrand Arteor - Switch box & Accessories, RR Kabel - FRLS Cu wire)	E	12.00		
b	Supply and wiring for Computer socket using 2 x1.5Sq mm PVC insulated FRLS Cu wire along with 1.5 Sq mm green colored earth Cu wire in PVC medium gauge conduit including all required connections.(From UPS DB to work stations) (Make: RR Kabel - FRLS Cu wire, Balco/Precision or ISI marked equivalent - medium gauge conduit & Accessories)	Mtr	255.00		
c	Supply and wiring for Computer socket using 2 x2.5Sq mm PVC insulated FRLS Cu wire along with 1.5 Sq mm green colored earth Cu wire in PVC medium gauge conduit including all required connections.(From UPS DB to looping of 2 nos computer sockets stations) (Make: RR Kabel/V Guard - FRLS Cu wire, Balco/Precision or ISI marked equivalent - medium gauge conduit & Accessories)	E	12.00		
d	Supply and laying of 2 runs of 6 Sq mm and 1 run of 4 Sq mm PVC insulated FRLS Cu wire through PVC medium gauge onduits in recess /surface including all connections as required for UPS input / output supply. (Make: RR Kabel / V Guard- FRLS Cu wire, Balco/Precision or ISI marked equivalent - medium gauge conduit & Accessories)	Mtr	30.00		

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e	Supply, erection, testing and commissioning of 12 way SPN MCB DB double door made out of 16 SWG CRCA Sheet IP42/43 , dust and vermin proof , wall mounting in recess /surface consisting of the following Make: Legrand/Hager				
	Incomer :32 A 2 pole MCB - 1 no Make: Legrand/Hager				
	Out going : 6/10A SP MCB - 10 nos Make: Legrand/Hager	E	1.00		
f	Supply and erection of 40 A 2 Pole MCB in DP enclosure made out of 16 SWG CRCA sheet IP 42/43, dust and vermin proof wall mounting in recess/surface for UPS in put. Make: Legrand/Hager	E	4.00		
6	AC POINT WIRING				
a	Supply and erection of 25 A SP MCB controlled metal clad enclosure with 2 Pin Socket and earth made out of 16 SWG CRCA sheet IP 42/43, dust and vermin proof wall mounting in recess/surface for Split AC input. Make: Legrand/Hager	E	5.00		
b	Supply and laying of 2 runs of 4 Sq mm and 1 run of 2.5 Sq mm PVC insulated FRLS Cu wire through PVC medium gauge onduits in recess /surface including all connections as required for Split AC input (Make: RR Kabel/V Guard - FRLS Cu wire, Balco/Precision or ISI marked equivalent - medium gauge conduit & Accessories)	Mtr	90.00		
7	FIXTURES	-			
	Erection of following fan/ lighting fixtures with suitable lamp on walls/ceiling beams etc with proper supports wherever necessary				
a	40W LED 600x600mm Square luminaries.	E	18.00		
c	18W LED Circular luminaries	E	25.00		
d	12W LED Circular luminaries	E	8.00		
e	20W LED /28W T5 4ft Luminaries	E	5.00		
f	LED profile light	rft	150.00		
g	Ceiling Mounted Fan	E	2.00		
h	300 mm sweep light duty Exhaust Fan	E	4.00		
i	Wall Mounted Fan	E	14.00		
8	TELEPHONE POINTS	-			
a	Supply and fixing RJ11 Telephone sockets with back box and front plates in recess/surface including all connections as required. Make: Legrand Arteor	E	3.00		
b	Supply and laying 2 pair 0.5mm annealed tint copper conductor telephone cable from telephone socket to EPBX. Make: RR Kabel/Finolex	Mtr	75.00		
c	Supply and instllation of telephone junction box with chrone connector.	E	1.00		
9	BELL POINT				
d	Supply and installation of bell point inclduing required length of wires ,PVC back box and front plates with bell push in PVC medium gauge conduit in recess/surface.The specification includes the rate for ding dong bell. Make: Bell -GM, Switch & Accessories - Legrand Arteor, PVC medium gauge conduit & Accessories - Balco/Precision or ISI marked equivalent)	E	1.00		

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10	GENERAL EARTHING				
	Supply and drawing bare earthing conductors of 3.15 mm copper conductor (10 SWG) along with wiring/ cables/ UG and giving connection as required.				
a	NO. 10 SWG Cu wire (Meter board to Main DB, Earth pit to UPS DB, Earth pit to pit)	Mtr	35.00		
b	Supply and providing pipe earthing as per IS 3043 with 3.60 m long 40 mm dia B class GI pipe, GI funnel with weld mesh, filling required quantity of chemical compound containing graphite and montmorillonite including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 300 x 300 x 300 mm) but including test joint, earth continuity conductor to the plate, and covering at the top. (Branch earthing -2 no. & UPS earthing - 1no.)	E	2.00		
c	Supply and providing plate earthing as per IS 3043 with 600x600x6.30 mm cu earth plate, 20 mm GI watering pipe fixed to the earth plate with 20 x 3 mm GI clamps, GI funnel with weld mesh, filling required quantity of chemical compound containing graphite and montmorillonite including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 300 x 300 x 300 mm) but including test joint, earth continuity conductor to the plate, and covering at the top. (in ordinary soil) (Branch Earthing -1 no. & UPS earthing - 1 No.)	E	1.00		
	Copper Rod chemical earthing				
d.	Providing and fixing of maintenance free Earthing system comprises of molecularly bonded copper of 99.9% purity on low carbon steel of 3m length , having a diameter of 20mm with copper bonding thickness of 250 microns with selfcoupling peg & bore arrangement with fault current withstand capability of 20 KA rms value for 1 second and I peak of 50 KA. Universal Clamp made of SS 304 for clamping. Impact point on the bottom rod for easy insertion. Earth enhancing mineral compound is used for improving the soil conductivity. The material shall be mineral inert to sub soil and shall not pollute the environment and non corrosive to earth rod. The material should have a resistivity less than 0.2 Ωm. It should be free from hazardous substances The mineral compound is required to have minimum 20 Kg of the total composite. If using chemical compound min 37.5 Kg is required. Polypropylene & Polyethylene Earth electrode inspection chamber with heavy duty cover should be used		1.00		

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	to cover the Earth Rod. The dimension shall be 170mmx 170mmx 170mm with a weight bearing capacity of 50KN. Make: Cape or Equivalent				
e	Supply and Installation of 25x3mm copper earth bus of approximate size 0.3 to 0.6Mtr including making holes, sockets, tinned processing etc. (Raw power earthing -01 no., UPS earthing -01 no.)		2.00		
11	CABLES & TERMINATIONS				
	Supply and laying the following XLPE insulated PVC sheathed armoured 1.1KV grade Aluminium / Copper conductor cable conforming to IS:1554 (part-1) in cable trenches or on concrete wall or through pipes as per specifications, including providing of cable route makers in every 50M and at all strategic turning/ diversion points etc. Necessary clamping should be providing while burying cables in prepared trenches etc.as per standards. Make: V Guard				
a.	Supply and laying of 3.5 core 35 sq.mm XLPE insulated PVC sheathed aluminum armored cable from meter board to Main VTPN DB , DG to Main change over Make: V Guard /RR/Polycab	Mtr	30.00		
b.	Supply and termination of 35 sq.mm Al cable gland Make: Jainson	E	2.00		
c.	Supply and laying of 4 core 6 sq.mm XLPE insulated PVC sheathed aluminum armored cable from main VTPN DB to Lighting DB , DG to Lighting DB Make: V Guard /RR/Polycab	Mtr	45.00		
d.	Supply and termination of 6 sq.mm Al cable gland Make: Jainson	E	8.00		
e.	Supply and laying 2x2.5 sq.mm +1x1.5 sq.mm FRLS CU wire through 20 mm PVC medium gauge conduit in recess /surface including all connections as required from DB to board light.	Mtr	80.00		
Total					

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APPROVED MAKE OF MATERIALS

1	Switch fuse units (HRC)	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
2	Timer (TSQ 100)	L & T / HAVELLS
3	Voltmeter & Ammeter	A. E. / IMP
4	Voltmeter & Ammeter selector switches	KAYCEE / L & T
5	Phase indicating lamp	Vaishno / SIEMENS / ROSS controls
6	Capacitor	CROMPTON/SIEMENS
7	HRC fuses	GE power / SIEMENS / L & T / SCHNEIDER
8	Power Cable : XLPE	GLOSTER/POLYCAB/HAVELLS / FINOLEX
9	HRC fuse base & carriers.	GE power / SIEMENS / L & T / SCHNEIDER
10	1.1 KV grade PVC insulated armoured aluminium cable (ISI marked)	GLOSTER / NATIONAL / NICCO / HAVELLS
11	1.1KV / 600V grade PVC insulated & sheathed / insulated copper wire & flexible cords (ISI marked).	FINOLEX / HAVELLS / POLYCAB
12	RCCB / ELCB / MCCB	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
13	Moulded case circuit breaker	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
14	RCCB / ELCB	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
15	Switch fuse with rewirable fuses. (6A & 32A TPN)	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
16	Isolator	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
17	Changeover switch (on load type)	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
18	MCB distribution board	LEGRAND /SCHNEIDER / HAVELLS / SIEMENS
19	6/16 Amp modular type switch / flushed type plug socket	CRABTREE (athena) / LEGRAND (myrius) / SCHNEIDER (unicoplus)
20	6/16 Amp modular switch / socket, module plate & mounting M.S. / PVC box.	CRABTREE (athena) / LEGRAND (myrius) / SCHNEIDER (unicoplus)
21	16/25 Amp., 2 module electronic regulator	CRABTREE (athena) / LEGRAND (myrius) / SCHNEIDER (unicoplus)
22	Ceiling rose	KAY / EPP / ANCHOR / JJ
23	Holder	KAY / EPP / ANCHOR / JJ
24	Alarm bell	KHERAJ / GETCO
25	Black enamelled Steel conduits (conforming to IS in all respects)	BEC / SUPREME / AKG
26	Compression type brass gland	DOWELLS / JOHNSON / COMET
27	Cable termination socket	DOWELL'S
28	Light fitting & lamps	PHILLIPS / HAVELLS
29	Ceiling / Wall Mounted Fan	CROMPTON / HAVELL'S/BAJAJ
30	Exhaust fan	CROMPTON / BAJAJ / HAVELL'S
31	Industrial type socket & top	HAVELL'S / CROMPTON / LEGRAND
32	Telephone wire	FINOLEX / HAVELLS / POLYCAB
33	Starters	NORTH WEST / CRABTREE
34	All other items not covered above	As per sample approved by Employer/Consultant

SEAL & SIGNATURE OF TENDERER