

CANARA BANK

INVITATION TO TENDER

ONLY FOR EMPANELLED CONTRACTORS

OF

CIRCLE OFFICE KOLKATA

TENDER FROM ANY OTHER CONTRACTOR WILL BE SUMMARILY REJECTED

INSTRUCTION TO BIDDERS

AND

GENERAL CONDITIONS OF CONTRACT

FOR

ELECTRICAL WORKS

AT

CANARA BANK – RAGHUNATHPUR BRANCH

TENDER NO.: 74/22-23/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 RAGHUNATHPUR Branch.

Tender Documents may be obtained at free of cost from the Premises & Estate
Section, Circle Office Canara Bank, Kolkata during working hours from
28.11.2022 till 05.12.2022.

Earnest Money Deposit : NIL

Period of completion : 21 days

**Last date, time and place for Submission of tender : On or before 3:00 pm, 05.12.2022 to
The Divisional Manager,
Premises & Estate section
Canara Bank, Circle Office
Kolkata**

Time and date of opening of tender : 3.30 pm on 05.12.2022

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.

**Divisional Manager
Premises & Estate Section
Canara Bank, Circle Office
Kolkata**

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Date: 28.11.2022

SEAL & SIGNATURE OF TENDERER

GENERAL RULES & INSTRUCTIONS TO TENDERERS

Name of the work: Electrical Works to be carried out at RAGHUNATHPUR 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 21 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:

- o The "rate" column to be legibly filled in ink in both English figures and words.
- o 'Amount' column to be filled in for each item and the amount for each sub-head as detailed in the "schedule of quantities".
- o All corrections to be initialed.
- o The "Rate" column for all the items shall be filled up.
- o The "Amount" column for the items for which the quantities are not mentioned shall not be filled up.
- o 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.

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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 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 deposit/ submit along with the bids. Retention Money shall be deducted from the final bill at 5% 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 whether 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, electrical 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: 21 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.

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

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 thereof 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 breach 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 sole 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 aforesaid 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 aforesaid 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.

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The arbitrator shall be deemed to have entered on the reference the date 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.

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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APPROVED MAKE OF MATERIALS		
1	Switch fuse units (HRC)	LEGRAND / INDO-ASIAN / HAVELLS
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 / NICCO
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
12	RCCB / ELCB / MCCB	LEGRAND / INDO-ASIAN / HAVELLS
13	Moulded case circuit breaker	LEGRAND / INDO-ASIAN / HAVELLS
14	RCCB / ELCB	LEGRAND / INDO-ASIAN / HAVELLS
15	Switch fuse with rewirable fuses. (6A & 32A TPN)	LEGRAND / INDO-ASIAN / HAVELLS
16	Isolator	LEGRAND / INDO-ASIAN / HAVELLS
17	Changeover switch (on load type)	LEGRAND / INDO-ASIAN / HAVELLS
18	MCB distribution board	LEGRAND / INDO-ASIAN / HAVELLS
19	6/16 Amp modular type switch / flushed type plug socket	ANCHOR (Roma) / CRABTREE / INDO-ASIAN
20	6/16 Amp modular switch / socket, module plate & mounting M.S. / PVC box.	ANCHOR (Roma) / CRABTREE / INDO-ASIAN
21	16/25 Amp., 2 module electronic regulator	ANCHOR (Roma) / CRABTREE / INDO-ASIAN
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 / KHAITAN / HAVELL'S
30	Exhaust fan	CROMPTON / KHAITAN / HAVELL'S
31	Industrial type socket & top	HAVELL'S / CROMPTON / LEGRAND
32	Telephone wire	FINOLEX / RRK/NATIONAL
33	Starters	NORTH WEST / CABTREE
34	All other items not covered above	As per sample approved by Employer/Consultant

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CANARA BANK # RAGHUNATHPUR BRANCH # KOLKATA CIRCLE

SCHEDULE FOR ELECTRICAL WORKS

Sl No.	Description Of Item	Qnty.	Unit	Rate (Rs.)	Amount (Rs.)
1	MAIN INCOMING SFU				
	S/I/T/Commissioning of 100 Amp. TPN Main Switch (HRC type SFU) at main incoming from CESC / SEB to be fixed on MS angle framework & 2 nos. cable end box including necessary interconnections	1	unit		
1	MAIN PANEL BOARD				
	S/I/T/Commissioning of Main Distribution panel as per given below: - 440 Volts AC, 3 Phase, 50 Hz with 50 KA fault level for 1 second, Floor / Wall mounted, 7 tank cleaning process with duly powder coated with copper bus bar. Incomer : 100 Amps 4P MCCB of 35 KA breaking capacity - 1 nos., 40 Amps 4P MCCB - 1 no. (interlocking for DG supply) with LED type phase indicating lamp, Digital voltmeter, Ammeter with selector switch with required CT unit, Danger Notice Board indicating sign (DANGER) in English, Hindi, Bengali. Outgoing : 40 Amps TPN MCB - 2 Nos., 40 Amps DP MCB - 3 Nos., 63 Amp TPN Changeover-1 No., 100 Amp TPN Bus bar Chamber-1 No.	1	unit		
2	UPS INPUT/ OUTPUT				
	63 Amps/40 Amps 4P MCB in MS enclosure box	4.00	unit		
3	DISTRIBUTION BOARDS (All MCBs to be "C" series) (All connections to be through Cu socket)				
a	Providing and fixing 12 way SPN double door UPS DB with incomer 1 no. 40 Amps DP MCB controlling 10 nos. 16/10 Amp SP MCB Complete.	2.00	unit		
b	Providing and fixing 12 way SPN double door LIGHT DB for LIGHT POINTS with incomer 1 no. 25 Amps DP RCBO controlling 10 Nos. 6/10 Amp SPMCB Complete.	3.00	unit		
c	Providing and fixing 4 way TPN double door AC DB for A.C. POINTS with incomer 1 no. 40 Amps 4P MCB controlling 12 no. 10/16 Amp SPMCB , keeping other space as spare Complete.	1.00	unit		
d	Providing and fixing 4 way TPN double door POWER DB for RAW POWER POINTS with incomer 1 no. 25 Amps 4P MCB controlling 12 no. 16/10 Amp SPMCB Complete.	1.00	unit		
e	Providing and fixing 1 no. 25 Amps DP MCB with metal enclosure controlling few light points and UPS input.	1.00	unit		
4	CABLES				
a	Providing and placing in position, testing and connecting 1.1 KV grade Cu cable 4C x 50 sq. mm. with 2 Nos 10 swg GI ECC by GI bar and saddles on wall/floorpass. Cable to be for <u>Main switch to Main Panel</u> Including all necessary terminals etc. complete.	15.00	r. m.		
b	Providing and placing in position, testing and connecting 1.1 KV grade Cu cable 4-C x 25 sq. mm. with 2 Nos 10 swg GI ECC by GI bar and saddles on wall/floorpass. Cable to be for <u>DG to Main Panel</u> Including all necessary terminals etc. complete.	20.00	r. m.		

c	Providing and laying 4 x 6 sq. mm. & 2 x 4 sq. mm. FR PVC coated copper conductors (1.1 KV grade) in pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories from <u>Main DB to AC DB</u> . Including all necessary terminals etc. complete.	25.00	r. m.		
d	Providing and laying 4 x 6 sq. mm. & 2 x 4 sq. mm. FR PVC coated copper conductors (1.1 KV grade) in pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories from <u>Main DB to UPS Input</u> and <u>UPS Output to UPS DB</u> . Including all necessary terminals etc. complete.	35.00	r. m.		
e	Providing and laying 4 x 6 sq. mm. & 2 x 2.5 sq. mm. FR PVC coated copper conductors (1.1 KV grade) in pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories from <u>Main DB to POWER DB</u> . Including all necessary terminals etc. complete.	15.00	r. m.		
f	Providing and laying 2 x 6 sq. mm. & 1 x 1.5 sq. mm. FR PVC coated copper conductors (1.1 KV grade) in pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories from <u>Main DB to LIGHT DB</u> . Including all necessary terminals etc. complete.	15.00	r. m.		
g	Providing and laying 2 x 2.5 sq. mm. & 1 x 1.5 sq. mm. FR PVC coated copper conductors (1.1 KV grade) in pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories from <u>LIGHT DB to SWITCH BOARDS / RAW POWER</u> Including all necessary terminals etc. complete.	250.00	r. m.		
h	Providing and laying 2 x 2.5 Sq mm. & 1 x 1.5 sq. mm. FR PVC insulated multi stranded copper wire in suitable size pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories for <u>UPS DB To Computers</u> . Including all necessary terminals etc. complete.	150.00	r. m.		
i	Providing and laying 2 x 4 Sq mm. & 1 x 1.5 sq. mm. FR PVC insulated multi stranded copper wire in suitable size pvc rigid pipe/capping-casing on surface of wall duly clamping with necessary fittings and accessories for <u>DB To Glow Sign Board</u> . Including all necessary terminals etc. complete.	15.00	r. m.		
5	POINT WIRING				
a	Providing & fixing POINT WIRING for Ceiling and wall lights. Point wiring to be laid from switch board with 2 x 1.5 sq. mm. + 1 x 1.0 sq.mm. PVC insulated copper conductor with all necessary accessories, such as saddles etc. on surface or embedded in wall, chasing the walls and making the surface neat afterwards. The item includes modular switch 6 Amp with all base plates & cover plates, M.S. box of same make etc. 3 - plate ceiling rose to be provided for Exhaust fans complete. (one light to be controlled by one switch)	40.00	unit		
c	Providing and fixing power point for Wall / Exhaust Fan points with 1 x 2 pin 6 Amp socket outlet to be provided at the location of fan	12.00	unit		
d	Providing & fixing Raw Power Point Includes 1 nos. 5 pin 6 AMP socket and 1 no 6 Amp switch etc. complete.	10.00	unit		

d	Providing & fixing Raw Power Point Includes 1 nos. 5 pin 5/15 AMP socket and 1 no 15 Amp switch etc. complete.	1.00	unit		
e	Providing & fixing Computer Plug Points with 3 Nos 5 pin 6 Amp sockets, 1 Nos 6 amp switch & one indicator lamp, complete with all necessary accessories. The switch and indicator to be located above the counter while sockets to be fixed below the counter.	9.00	unit		
f	Providing and fixing BELL POINTS on wall / partition with 2 x1.0 sq. mm. copper conductor with call bell switch (Push Type) including ANCHOR call bell TRESSA Multi Tune Bell complete.	1.00	unit		
h	Providing and fixing Glow Sign Board point with timer controlling thro. separate 16 Amp. DP MCB with metal enclosure complete.	1.00	unit		
6	EARTHING				
a	Earthing installations as per I.E. rules by making earth stations with 600 mm x 600 mm x 6.0 mm. thick copper plate electrode to be installed such that its top edge shall be at a minimum depth. of 3.0 meter below ground level after preparation of ground with charcoal and salt and connecting the MIP with 25 mm x 6 mm G.I. earth lead-in-strip directly in ground by bolting and then brazing to the copper Plate complete with G.I. bolts of suitable length double nuts and washers including supply and fixing of 50-mm dia. partly perforated G.I. pipe with funnel for watering arrangement. 3.0 m. long with 300 x 300 mm. casting plate connection to be fitted with bitumen, the electrode to be driven under G. L. to an av. depth of 3.15 m. The earthing installation should be provided with 300 mm x 300 mm and 300 mm depth inside dimension masonry inspection pit with C.I. hinged cover having locking arrangements, test link of size 150 mm length x 25 mm x 6 mm copper flat connected to copper earth lead-in-strip and restoring the surfaces duly rammed.	1.00	unit		
b	Providing and fixing Pipe Earthing (IS 3043 Code) 3.0m. deep with 40 mm. dia. GI pipe With perforations filled with alternate layers of Charcoal and salt. The item includes Funnel on top in brick masonry chamber with CI cover for watering purpose complete.	2.00	unit		
c	Providing and fixing Copper Earth Wire 8 guage in pvc conduit in Floor / walls From earth pit to earthing station & finally connected to Main Panel Board Complete.	40.00	r. m.		
7	TELEPHONE CABLING				
a	Supplying, Installation, Testing & Commissioning of 10 pair 0.51 sq. mm. telephone unarmoured cable in 20 mm PVC pipe. (Make - Finolex / Havells / Polycab)	25.00	r. m.		
b	S/I/T/Commissioning of Telephone point with 1 No. of RJ-11 socket, 1 Module Plate & Modular Box as per instructions of the Architect.	3.00	unit		
c	S/I/T/Commissioning of telephone Junction box 10 pair krone type housed in MS box with Lock & key.	1.00	unit		
8	ELECTRICAL FIXTURES				

	Item includes supplying, assembling, fixing, testing & commissioning Following Fixtures including all accessories, lamps & extension chords as maybe necessary complete. All LED / Flurescent fixtures (except down lighters) to be hung from the RCC ceiling by 20 KG grade adjustable GI chain & in NON False ceiling area they are to be hung by appropriate Down Rods.				
a	Providing and Fixing Recessed mounted diffused optics high performance 2' X 2' LED luminaire with necessary LED lamp (34W LED 6000K) or similar	12.00	unit		
b	Providing and Fixing Recessed mounted LED spot light with necessary LED lamp (15W LED 6000K) or similar. (Ceiling cutout ø 155 mm.)	20.00	unit		
c	Providing and Fixing Surface-mounted 4' long luminaire suitable for Lamp type 18W LED (T5) or similar	5.00	unit		
d	Providing and Fixing Surface mounted 2' long luminaire suitable for Lamp type 12W LED or similar	2.00	unit		
e	Providing and Fixing wall mounted fans 400 mm. sweep	7.00	unit		
f	Providing and Fixing ceiling fans 1200 mm. sweep including 600 v electronic regulator	2.00	unit		
g	Providing & Fixing of MS hook (12 mm. dia. MS round bar) of required size inserted in RCC roof at the location of ceiling fan	2.00	unit		
h	Providing & Fixing of MS pipe of required length to be hung from MS hook at the location of ceiling fan (at location of greater height of true ceiling)	2.00	unit		
i	Supplying & Fixing of exhaust fan heavy duty industrial type 225 mm sweep with 1400 RPM.	3.00	unit		
9	Dismantling existing wiring, DB, fixtures etc. (as to be approved by bank) and removing the rubbish for auctioning by the bank as per direction of Bank / Architect.	1.00	unit		
A	TOTAL EXCLUSIVE OF GST				
B	DISCOUNT IF ANY				
C	TOTAL AFTER DISCOUNT (A-B)				
D	GST				
E	TOTAL INCLUSIVE OF GST (C + D)				

APPROVED MAKE OF MATERIALS

1	Switch fuse units (HRC)	LEGRAND / INDO-ASIAN / HAVELLS
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 / NICCO
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
12	RCCB / ELCB / MCCB	LEGRAND / INDO-ASIAN / HAVELLS
13	Moulded case circuit breaker	LEGRAND / INDO-ASIAN / HAVELLS
14	RCCB / ELCB	LEGRAND / INDO-ASIAN / HAVELLS
15	Switch fuse with rewirable fuses. (6A & 32A TPN)	LEGRAND / INDO-ASIAN / HAVELLS

16	Isolator	LEGRAND / INDO-ASIAN / HAVELLS
17	Changeover switch (on load type)	LEGRAND / INDO-ASIAN / HAVELLS
18	MCB distribution board	LEGRAND / INDO-ASIAN / HAVELLS
19	6/16 Amp modular type switch / flushed type plug socket	ANCHOR (Roma) / CRABTREE / INDO-ASIAN
20	6/16 Amp modular switch / socket, module plate & mounting M.S. / PVC box.	ANCHOR (Roma) / CRABTREE / INDO-ASIAN
21	16/25 Amp., 2 module electronic regulator	ANCHOR (Roma) / CRABTREE / INDO-ASIAN
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 / POLAR / KHAITAN / HAVELL'S
30	Exhaust fan	CROMPTON / POLAR / KHAITAN / HAVELL'S
31	Industrial type socket & top	HAVELL'S / CROMPTON / LEGRAND
32	Telephone wire	FINOLEX / RRR/NATIONAL
33	Starters	NORTH WEST / CABTREE
34	All other items not covered above	As per sample approved by Employer/Consultant