

UCO BANK
ZONAL OFFICE, DURGAPUR
GENERAL ADMINISTRATION DEPARTMENT
1st floor, Durgapur Steel City Branch
Einstein Avenue, 'B' Zone
Durgapur – 713 205

TENDER DOCUMENT
FOR
ELECTRICAL & AC WORKS
OF
KULTI BRANCH AND ATM

ONLY FOR EMPANELLED CONTRACTOR
(ELECTRICAL WORK : CATEGORY – B & C)

NAME OF THE TENDERER :

ADDRESS OF THE TENDERER :

LAST DATE OF SUBMISSION : **21.11.2024 at 02.00 PM**

OPENING OF TENDER : **21.11.2024 at 03.00 PM**

ARCHITECT / CONSULTANT

SUDIP SUR AND ASSOCIATES
14/2, KALI KUMAR MUKHERJEE LANE, SHIBPUR
HOWRAH – 711 102
MOBILE : 98300 17895
e-mail : sudip.arch@gmail.com

GENERAL INDEX

DESCRIPTION	PAGE NO.
1. General Index	2
2. Notice Inviting Tender	3
3. General Rules and Instructions For the Guidance of Tenderers	5
4. Special Instructions to Tenderers	8
5. Safety Code	11
6. Model Rules for the Protection of Health and Sanitary Arrangements for Workers	14
7. General Conditions of Contract	16
8. Appendix	38
9. Technical Specification	39
10. Articles of Agreement	52
11. Form of Tender	54
12. Schedule of Works	56
13. Tender Drawings	61

NOTICE INVITING TENDER

Sealed tenders on item rate basis are invited by UCO Bank from **Empanelled Contractors under Electrical Category-B & C** for Electrical & AC works of **KULTI Branch and ATM**. No other category of Electrical Contractor is eligible to bid for this work.

A) Name of the Work:

ELECTRICAL & AC WORKS OF KULTI BRANCH AND ATM

B) Location :

D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal

C) Estimated Cost :

Rs. 7.91 Lacs (excluding GST)

D) Time of Completion:

3 (THREE) WEEKS from the date of written orders or from the date of handing over of the site, whichever is later.

E) Earnest Money Deposit (EMD) :

The tender shall be accompanied by earnest money deposit of **Rs.8,000.00 (Rupees Eight Thousand only)** in the form of Crossed Demand bank draft/Pay order issued in favour of 'UCO BANK' payable at Kolkata without which tender will be liable to rejection. Earnest money deposit in respect of the successful tenderer will be retained. Tenderer having MSME registration need not to submit EMD.

F) Initial Security Deposit (ISD):

The successful tenderer to whom the contract is awarded will have to deposit as "initial security deposit" (ISD) a further sum to make up 2% of the value of the accepted tender including the Earnest Money. ISD may be submitted in the form of Demand Draft/ Pay Order or Banker's cheque. The initial Security Deposit will have to be made within 14 days from the date of acceptance of tender, failing which the Bank at its discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with the tender.

G) Retention Money:

To be deducted from Final bills @ 10 % of the gross value of the Bill.

H) Release of Retention Money:

100% after expiry of the Defect liability period. Retention money will not bear any interest.

I) Date & Place of Submission of Tender:

21/11/2024 up to 2:00 P.M. at General Administration Department, Durgapur Zonal Office, UCO BANK, at 1st floor, Durgapur Steel City Branch, Einstein Avenue, 'B' Zone , Durgapur – 713 205

J) Tender addressed to:

THE ZONAL MANAGER
UCO BANK
ZONAL OFFICE HOOGHLY
GENERAL ADMINISTRATION DEPARTMENT
1st floor, Durgapur Steel City Branch
Einstein Avenue, 'B' Zone
Durgapur – 713 205

K) Opening of Tender:

21/11/2024 at 3.00 P.M. at General Administration Department, Durgapur Zonal Office, UCO BANK, at 1st floor, Durgapur Steel City Branch, Einstein Avenue, 'B' Zone, Durgapur – 713 205

L) Mode of Submission of Tender:

The tender should be submitted at the General Administration Department, Durgapur Zonal Office, UCO BANK, at 1st floor, Durgapur Steel City Branch, Einstein Avenue, 'B' Zone, Durgapur – 713 205, in two separate sealed covers super scribed Part-I and Part-II containing the documents as under :-

1. In **First Sealed Cover** super scribed with **PART- I**. It will consist Covering letter, EMD (or MSME registration), Letter of Empanelment. Any condition stipulated by the Contractor in Part-I will not be accepted.
2. In **Second Sealed Cover** super scribed with **PART- II**. It will consist of price bid. Conditional Price Bid will not be accepted
3. In **Third Sealed Cover** super scribed with Name of work, NIT No, Date, Name & Address of the Bidder will comprise of both First Sealed cover (**PART- I**) and Second Sealed Cover (**PART- II**).

M) Clarification, if any to be obtained from:

SUDIP SUR AND ASSOCIATES
14/2, Kali Kumar Mukherjee Lane, Shibpur,
Howrah – 711 102
Mobile : 98300 17895
e-mail : sudip.arch@gmail.com

The Bank reserves the right to accept or reject any or all the tenders received and to place order on one or more firms without assigning any reason whatsoever. The notification of award of contract will be made in writing to the successful tenderer by the Bank.

UCO BANK
GENERAL ADMINISTRATION DEPARTMENT
ZONAL OFFICE
DURGAPUR

GENERAL RULES AND INSTRUCTIONS FOR THE GUIDANCE TO TENDERERS

1. Tenders are hereby invited by UCO Bank, KULTI branch for **Electrical & AC works** at **KULTI branch & ATM**. Estimated cost of project is **Rs. 7.91 lacs** (excluding GST).
2. Contract documents consisting of the plans, complete specifications, the schedule of quantities of the above work to be done, and set of conditions of contract to be complied with by the person whose tenders may be accepted, which will also be found in the form of tenders, can be obtained from bank's website : www.ucobank.com
3. The site for the work will be made available to the contractor in its present conditions. No space other than the above site can be made available to the contractor for site office, labour camps, storage etc.
4. Sealed tenders on the prescribed form are to be addressed & submitted to "The Zonal Manager, UCO Bank, Durgapur Zonal Office, General Administration Department, 1st floor, Durgapur Steel City Branch, Einstein Avenue, 'B' Zone, Durgapur – 713 205 upto 4.00 P.M on 09/05/2024 in two separate sealed covers superscripted with Part-I and Part-II containing the documents as under :-

Part-I : *Covering letter, Earnest Money (or MSME registration), Letter of Empanelment,*

Part-II : *The Tender Document comprising of General Conditions of Contract, Tender Notice, technical Specifications etc. along with Bill of Quantities, duly priced, (along with Tender drawings if applicable). Any condition stipulated in Part-II will not be accepted.*

The Part-I : will be opened at about 4.30 P.M. on 29/07/2024 in presence of tenderers. The tenderers shall depute their authorized representative/s to be present at the time of opening of Part-I. Tender without earnest money in proper form will be rejected.

The Part –II : containing the Bill of Quantities, duly priced will be opened after verification of submissions made in Part-I, which might necessitate withdrawal of conditions and its financial impact on the tendered sum, if any.

5. Tenders are to be on the prescribed form which can be obtained from bank's website : www.ucobank.com till 21/11/2024.
6. The time allowed for the carrying out of the work will be **3 weeks** from the date of written orders to commence the work.
7. All corrections shall be attested by the initials of the tenderers with the seal of the firm. In case any discrepancy/ difference is found on checking between rates quoted by the contractor in words and figures or in the amount worked out by him, the following procedure shall be followed :
 - a) When there is a difference between the rates in figures and in words, the rate which corresponds to the amounts worked out by the contractor, shall be taken as correct.

- b) When the amount of any item is not worked out by the contractor or it dose not correspond with the rate written either in word, then the rate quoted by the contractors in word shall be taken as correct.
 - c) When the rate quoted by the contractor in figures and in word tallies but the amount is not worked correctly, rate quoted by the contractor shall be taken as correct and not the amount.
 - d) Amendments as mentioned above shall be based on the tender marked "original" only.
8. When a contractor signs a tender in an Indian language the tendered amount and the total amount tendered should also be written in the same language. In the case of illiterate contractors the rates or the amount tendered should be attested by a witness.
 9. Earnest money, amounting **Rs. 8,000.00** in the crossed Demand Draft/Pay order/ Banker's cheque drawn in favour of "UCO Bank", payable at Kolkata must accompany each tender in Part-I.
 10. The contractor, whose tender is accepted will be required to furnish by way of security deposit for the due fulfillment of his contract, such sum as detailed in clause No.22A of General conditions of contract. The EMD of the contractor, whose tender is accepted, shall be forfeited in full in the case he dose not remit the Initial Security Deposit within the stipulated period or start the work by the stipulated date mentioned in the award letter.
 11. The acceptance of a tender will rest with the UCO Bank, Zonal Office, Hooghly. The Bank reserves to itself the authority to accept or reject any or all of the tenders received and to place order on one or more firms without the assignment of a reason. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected. The bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other conditions if his tender is accepted in parts.
 12. Canvassing in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
 13. All rates shall be quoted on the proper form of the tender alone.
 14. An item rate tender containing percentage below/above will be summarily rejected. However, where a tender voluntarily offers a rebate for payment within a stipulated period in Part-I, this may be considered.
 15. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Owner/ Architects shall be communicated to the owner.
 16. Special care should be taken to write the rates in figures as well as in words and the amounts in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word "Rs." Should be written before the figure of rupees and word "P" after the decimal figures, e.g. Rs.2.00P.and in case of words, the word "Rupees" should be precede and the word "Paisa" should be written at the end, unless the rate is in whole rupees and followed by the words "only" it should invariably be up to two decimal places. While quoting the rate is in schedule quantities. The word "only" should be written closely following the amount and it should not be written in the next line.

17. The Bank does not bind it-self to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
18. All taxes including GST, Work Contract Tax, or any other tax on material or on finished works in respect of this contract shall be payable by the contractor and the Bank will not entertain any claim whatsoever in this respect at any time. Rates should include all taxes.
19. The contractor shall give a list of his relatives working with the bank along with their designations and addresses.
20. No employee of the Bank is allowed to work as a contractor for a period of two years of his retirement from bank service, without the previous permission of the bank. This contract is liable to be cancelled if either the contractor or any of his employees found at any time to be such a person who had not obtained the permission of the Bank as aforesaid before submission of the tender or engagement in the contractor's service.
21. The tender for works shall remain open for acceptance for a period of 120 days from the date of opening of tenders. If any tenderer withdraws his tender before the said period, then the Bank shall be at liberty to forfeit Earnest money paid along with the tender.
22. The tender for the work shall not be witnessed by a contractor or contractors who himself / themselves has /have tendered for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tender liable to summarily rejection.
23. It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the component authority in the bank.
24. The tenderer, apart from being a component contractor must co-operate himself with agencies of the appropriate class who are eligible to tender for (i) Waterproofing work (ii) Electrical work (iii) A/C work etc.

SPECIAL INSTRUCTIONS TO TENDERERS

GENERAL

The scope of work covers execution and completion of the **Proposed Electrical & AC works of KULTI branch at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal** in accordance with drawings and specifications prepared by and under the direction and to the satisfaction of the Consultant/ Employer.

Contract: The form of Contract shall be according to the Conditions of Contract. The following clauses shall be considered as an extension and not in limitation of obligation of the Contractor.

Drawings: Two copies of all drawings (if applicable), shall be furnished by the Consultant/ Bank. to the Contractor for his own use until the completion of the Contract, and shall be accessible at all reasonable times to the Consultant or their representatives. All important drawings are to be mounted on boards and placed in racks and indexed.

Dimensions: Figured dimensions are in all cases to be accepted in preference to scaled sizes. Large scale details take precedence over small scale drawings. In case of any discrepancy the Contractor shall ask for clarification before proceeding with the work. The Contractor shall include in his rates for all the items listed in this section.

1. **Contractor to inspect site :** The Contractor shall visit and examine the construction site and satisfy himself at his own cost as to the nature of the existing roads or other means of communications, the extent and magnitude of the work and facilities for obtaining materials and shall obtain generally his own information. Any misunderstanding or incorrect information on any of these points or on the grounds of insufficient description, will not be allowed.
2. **Access to site:** The Contractor is to include in his rates for forming access to site, with all temporary roads gangways required for the works.
3. **Setting out:** The Contractor shall set out the site in accordance with the plans. All grid/centre-lines shall be pegged out to the satisfaction of the Consultant. The Contractor shall be responsible for the correctness of the lining out and any inaccuracies are to be rectified at his own expense. He will be responsible for taking levels of work at the site before setting out and recording them without any extra charge.
4. **Treasure grove:** Should any treasure fossils, minerals or work of art of antiquarian interest be found during carrying out the works, the Contractor shall give immediate notice to the Consultant /Bank of any such discovery and shall hand over such finds to the Employer.
5. **Access for inspection:** The Contractor is to provide at his own cost all times during the progress of the works and the maintenance period proper means of access, with ladders, gangways etc. and the necessary attendance to move and adapt as directed for the inspection of measurement of the works by the Consultant or their representatives.
6. **Attendance upon all trades :** The general Contractors shall be required to attend on all the tradesmen or sub-contractors appointed by the Employer for water supply and sanitary, electrical installation, lifts, air-conditioning, security, equipment, hardware, telephone and other specialist Contractors. The rates quoted shall be inclusive of all attendance and also allow the other Contractors, appointed by the Employer, use of his scaffolding and retain until such time the relevant sub-contract works are completed.

7. **Water supply :** Water shall be arranged in accordance with Clause 21(a) of general instructions to Contractor. The general Contractor shall allow the use of water for other works on the site done by other Contractors appointed by the Employer and the consumption charges shall be paid by each agency as appointed by the Consultant

8. **Stores and watchmen :** The Contractor shall provide at his own cost for necessary stores of adequate dimension for storage and protection of materials. All such stores shall be cleared away and the whole area left in good order on completion of the Contract to the satisfaction of the Consultant. All materials which are stored such as ply, wood, Laminates or any other matter shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials. The Contractor shall nominate a person who would take instruction from the Consultant/employer.

9. **Cost of transporting:** The Contractor shall allow at his cost for all transporting unloading, stacking and storing of supplies of goods and materials for this work on the site and in the places approved from time to time by the Consultant.
The Contractor shall allow at his price for transport of all materials controlled or otherwise to the site.

10. **Office accessories and accommodation:** The Contractor shall also provide at his own expense office furniture with drawing accessories for the official use of the controller and at all times maintain in good working order necessary instruments at site to enable the Consultant/employer to check the lines and levels of the work.

11. **Materials workmanship & samples :** Materials shall be of approved quality and the best of their kind available and shall generally conform to relevant I.S. specifications. The Contractor shall order all the materials required for the execution of work as early as necessary and ensure that such materials are on site well ahead of requirement for use in the work. The work involved calls for high standard of workmanship combined with speed and to the entire satisfaction of the Consultant. Before ordering materials, the Contractor shall get the samples approved from the Consultant well in advance.

12. **Rates for non-tender items :** Rates of items not included in schedule of specification shall be settled as per current PWD schedule of rates if not available then to be settled as per variation clause of the condition of contract.

Rates to include : The rates quoted shall be for all heights and depths and for finished works, in any shape.

The Contractor shall ascertain from other Contractors as directed by the Architects all particulars relating to their work with regard to the order of its execution and the position in which chases, holes and similar items will be required, before the work is taken in hand as no claims for extra will be allowed for cutting away work already executed in consequence of any neglect by the Contractors to ascertain these particulars beforehand.

13. **Testing of work and material :** The Contractors shall, if required by the Consultant/employer, arrange to test materials and/or portions of the work at his own cost in order to prove their soundness and efficiency. If after any such test the work or portion of work is found in the opinion of the Consultant to be defective or unsound, the Contractor shall pull down and redo the same at his own cost, defective materials and the debris shall immediately be removed from the site.

14. **Foreman and Tradesmen :** All tradesmen shall be experienced men properly equipped with suitable tools for carrying out all the work of carpentry and joinery and other special trades in a first class manner and where the Consultant deem necessary, the Contractor shall provide any such tools, special or ordinary which are considered necessary for carrying out the work in a proper manner. All such tradesmen shall work under an experienced and properly trained Forman, who shall be capable of reading and understanding all drawings pertaining to this work .

15. **Work programme weekly progress report :** The Contractor shall prepare and submit to Consultant/employer for approval, a bar chart showing the programme of construction of various items, fitted within the period stipulated for completion, along with submission of the tender. The Contractor shall also furnish necessary particulars to the Consultant for compiling weekly progress reports in the form furnished by the Consultant/employer.
16. **Clearing of site :** The Contractor shall after completion of the work clear the site of all debris and left over material at his own expense to the entire satisfaction of the Consultant and municipal or other public authorities.
17. **Photographs :** The Contractor shall at his own expense supply to the Consultant with duplicate copies of large coloured photographs not less than 25 x 20 cm. (10" x 8") of the works taken from two approved portions of each building, at beginning of the work, at completion of work and at every important stage of construction without fail.
18. **Preparation of Premises for occupation and use on completion :** The whole of the work shall be thoroughly inspected by the Contractors and all deficiencies and defects put right. On completion of such inspection, the Contractor shall inform the Consultant in writing, that he has finished the work and it is ready for the inspection of Consultant/employer.
19. **Vouchers :** The Contractors shall furnish the Architect with vouchers on request to prove that the materials are as specified and to indicate the rates at which the materials are purchased in order to without the rate analysis of tender and non-tender items which he may be called upon to carry out thereafter.
20. **Protection :** The Contractor shall properly cover up and protect all work throughout the duration of work and until completion, particularly masonry, mouldings, steps, or special floor finishes, staircases and balustrades, doors and window frames, plaster, angles, lighting and sanitary fittings, glass, paint work and all finishing at his cost till the same is handed over to the owner.

SAFETY CODE

Scaffolds

- i) Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration work which can be done safely from ladders. When a ladder is used, it shall be rigid construction made either of good quality wood or steel. The steps shall have a minimum width of 450 mm and a maximum rise of 300 mm. suitable hand holds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 (1/4 horizontal and 1 vertical).
- ii) Scaffolding or staging more than 4 m above the ground floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly bolted, braced or otherwise secured, at least 1 m above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- iii) Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform, gangway or stairway is more than 4 m above ground level or floor level. Suitably fenced as described in (ii) above.
- iv) Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 m.
- v) Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m in length while the width between side rails in rung ladder shall in no case, be less than 290 mm for ladder upto and including 3 m in length. For longer ladders this width shall be increased at least 20 mm for each additional metre of length.
- vi) A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to construction.

OTHER SAFETY MEASURES

- vii) All Personnel of the contractor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal workers shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.
- viii) Adequate precaution shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.

Excavation & Trenching

- ix) All trenches, 1.25 m or more in depth shall at all times be supplied with at least one ladder for each 30 m in length or fraction thereof. The ladder shall be executed from bottoms of the trench to at least 1 m above the surface of the ground. Sides of trenches which are 1.5 m or more in depth shall be stepped back to give suitable slope or securely held by timber bracing so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m of the edges of the trench or half of the depth bottom. Under no circumstances undermining or undercutting shall be done.

- x) The contractor shall taken all measures on the site of the work to protect the public from accidents and shall be bound to bear the expenses of defence of every suit, action or other proceeding at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any such persons or which may with the consent of the contractor, be paid to compromise any claim by any such person.

Demolition

- xi) Before any demolition work is commenced and also during the process of the work:
 - a) All roads open areas adjacent to the work site shall either be closed or suitably protected.
 - b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
 - c) All practical steps shall be taken to prevent danger to persons employed from the risk of fire or explosion or flooding. No floors roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

Personal Safety Equipments

- xii) All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the person employed on the site and maintain in a condition suitable for immediate use and the contractor should taken adequate steps to ensure proper use of equipment by those concerned:
 - a) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - b) Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.
 - c) Those engaged in welding works shall be provided with welder's protective eyesight lids.
 - d) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - d) When workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are ventilated at least for an hour before the workers are allowed to get into manholes and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
 - e) The contractor shall not employed with products containing lead in any lead painting the following precautions should be taken:
 - 1) No paint containing lead or lead products shall be used except in the from of paste or ready made paint.
 - 2) Suitable face make should be supplied for use by the workers when paint is applied in the from of spray or a surface having lead paint dry rubbed and scraped.
 - 3) Overalls shall facilities shall be provided to enable the working painters to wash during the cessation of work.
- xiii) When the work is done near any public place where there is risk of drowning all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt

rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Hoisting Machines

- xiv) Use of hoisting machines and tackle including their attachments anchorage and supports shall conform to the following standards or conditions:
 - 1. a) These shall be of good mechanical constructions sound material and adequate strength and free from patent defect and shall be kept in good repair and in good working order.
 - 1. b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from patent defects.
 - 2. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding which or give signals.
 - 3. In case of every hoisting machine and of every chain ring hook, shackle shovel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - 4. In case of departmental machines, the safe working load shall be notified by the Engineer. As regards contractor's machines, the contractor shall notify the safe working load of the machine to the Engineer whenever he brings any machinery to site of work and get it verified by the Engineer concerned.
 - xv) Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards, hoisting appliances should provided with such means as will reduce to the minimum of the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary, should be provided. The workers should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
 - xvi) All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use.
- Adequate washing facilities should be provided at or near places of work.
- xvii) These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
 - xviii) To ensure effective enforcement of the rules and regulations relating to safety precaution the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineers of the Department or their representatives.
 - xix) Notwithstanding the above clause from (i) to (xviii), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY AGREEMENTS FOR WORKERS

1. Application

These rules shall apply to the **Proposed Electrical & AC work of KULTI branch & ATM at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal**

2. Definition

- a) 'Work place' means a place at which at an average 50 workers are employed in connection with construction work.
- b) 'Large Work Place' means a place at which an average 500 or more workers are employed in connection with construction work.

3. First Aid

- a) At every work place, there shall be maintained in readily accessible place first aid appliance including an adequate supply of sterilized dressings and sterilized cotton wool. The appliance shall be kept in good order and in large work place they shall be placed under the charge of a responsible person who shall be readily available during working hours.
- b) At large work place where hospital facilities are not available within easy distance of the work, first aid posts shall be established and be run by a trained compounder.
- c) Where large work places are remote from regular hospitals, an in-door ward shall be provided with one bed for every 250 employees.
- d) Where large work places are situated in cities, towns in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to the hospitals. At other work places, some conveyance facilities, such as a cause shall be kept readily available to take injured person or persons suddenly taken ill to the nearest hospital.

4. Drinking Water

- a) In every work place, there shall be provided and maintained at suitable places easily accessible to labour sufficient supply of cold water fit for drinking.
- b) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- c) Every water supply of storage shall be at a distance of not less than 15 m from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within the proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be dust and water proof.
- d) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. Washing & Bathing Places

- a) Adequate washing and bathing places shall be provided, separately for men and women.
- b) Such place shall be kept in clean and drained condition.

6. Scale of accommodation in latrines & urinals

The shall be provided within the precincts of every work place latrines and urinals in an accessible place, and the accommodation, separately for each of them shall not be less than the following scale:

	No. of Seats
a) Where the number of persons dose not exceed 50	2
b) Where the number of persons exceeds 50, but dose not exceed 100	3
c) For every additional 100	3 per 100

In particular cases, the Engineer shall have the powers to very the scale where necessary.

7. Latrines & Urinals for Women

If women are employed, separate latrines and urinals screened from those for men and marked in the vernacular in conspicuous letters 'For Women only' shall be provided on the scale laid in Rule 6. those for men shall be similar marked 'For Women only'. A poster showing the figure of a man or a woman shall also be exhibited at the entrance of latrines for the urinals and latrines.

8. Latrines & Urinals

All latrines shall be provided with septic tanks or leach pits in case of small units. All the latrine shall be kept in good sanitary condition.

9. Construction of Latrine

The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. The dates of cement washing shall be noted in a register maintained for this purpose and kept available for inspection. Latrines will not be of a standard lower than bore-hole system and should have thatched roofs.

10. Disposal of excreta

Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta shall be made by septic tank or leach pit duly approved by the Engineer and in conformity with the requirements of local public health authorities.

11. Provision of shelter during rest

At every work place there shall be provided free of cost, two suitable sheds, one for meals and the other for rest separately for men and women for the use of labour. The height of the shelter shall not be less than 3.5 m for the floor level, to the rest part of the roof. The sheds should be roofed with at least thatch and mud flooring will be provided with wall around not less than 750 mm. sheds should be kept clean and the space should be on the basis of at least 0.50 square metre per head.

12. Canteen

A cooked food canteen on a moderate scale shall be provided for the benefit of workers whenever it is considered expedient.

GENERAL CONDITION OF CONTRACT

Except where provided for in the description of the individual items in the schedule of quantities and in the specifications and conditions laid down hereinafter and in the Drawings, the work shall be carried out as per standard specifications and under the direction of Owner /Architects.

1. INTERPRETATION

In construing these conditions, the specifications, the schedule of quantities, tender and agreement, the following word shall have the meaning herein assigned to them except where the subject to context otherwise requires:

- i) Owner/Employer : The term Owner/Employer shall denote UCO Bank, or any of its employees representative authorized on their behalf.
 - ii) Architect/Consultant : The term Architect/ Consultant shall mean **Sudip Sur & Associates, at 14/2, Kali Kumar Mukherjee Lane, Shibpur, Howrah -711 102**, or in the event of his/their ceasing to be the Architects for the purpose of this contract such other person/s the owner shall nominate for the purpose.
 - iii) Contractor : The term contractor shall mean the individual or company whether incorporated or not, undertaking the **Electrical & AC work of KULTI branch & ATM at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal** and shall include legal representative of such firm or company as may be and permitted assign of such individual of firm or company and successors.
 - iv) Site : The site shall mean the site where the works are to be executed as shown within boundary in red border on the site plan including any building and erections thereon allotted by the owner for the contractor's use.
 - v) Site Engineer/PMC : The site Engineer/PMC shall be appointed by the owner. The owner may also determine the number of site Engineer and the supporting staff at site office to assist them and also whether the site Engineer shall be temporary or permanent. Wherever PMC is engaged, site Engineer, if any, will work in close condition with PMC.
 - vi) Drawings : The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further Drawings which may be given by the employer during execution of the work. A set of drawings is provided with the tender to give the general idea about the total construction. All drawings relating work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Owner/Architects shall be given access to such drawings or schedule of quantities whenever necessary.
- In case any detailed drawings are necessary contractor shall prepare such detailed drawings and / or dimensional sketches therefore and have it confirmed by the Owner/Architects prior to taking up such work.
- The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specification and schedule of quantities or to additional instructions at least 10 days ahead from the time it is required for implementation so that the owner may be able to give decision thereon
- vii) The "work" shall mean the work or works to be executed or done under this contract.
 - viii) "Act of Insolvency" shall mean any act as such as defined by the presidency Towns Insolvency Act or in provincial Insolvency Act or any amending statutes.
 - ix) "The schedule of Quantities" shall mean the schedule of quantities as specified and forming part of this contract.

- x) "Priced schedule of Quantities" shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.
- xi) "Notice in writing" or "written notice" shall mean a notice written, typed or in printed characters sent (unless delivered personally or otherwise proved to have been received) by registered office address and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

2. SCOPE

The work consists of **Electrical & AC works of KULTI branch & ATM at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal** in accordance with the "drawings" and "schedule of quantities". The civil works are within the scope of this tender. It includes furnishing all material, labour, tools and equipment and management necessary for the incidental to the construction and completion of the work. All work, during its progress and upon completion, shall conform to the lines, elevations and grades as shown on the drawings furnished by the owner/architects . should any detail essential for efficient completion of the work be omitted from the drawings and specifications it shall be the responsibility of the contractor to inform the Owner/Architects and to furnish and install such detail with work the same will be acceptable and ready for use.

Owner/Architects may in their absolute discretion issue further drawings and/or written instructions, details, directions and explanations, which are, hereafter collectively referred to as "the owner/architects instructions in regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and/or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.
- d) The demolition removal and /or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any person employed thereupon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned and those arising during the maintenance period (retention period).

The contractor shall forthwith comply with and duly execute any work comprised in such Owner's/Architects instructions, provided always that verbal instructions, directions and explanations given to the contractor's or his representative upon the work by the owner /Architects shall involving a variation be confirmed in writing to the contractor's within seven days. No works for which rates are not specifically mentioned in the priced schedule of quantities shall be taken up without written permission of the Owner / Architects. Rates of items not mentioned in the priced schedule of quantities shall be fixed by the owner in construction with the Architects as provided in clause "variation".

Regarding all factory made products for which ISI marked products available, only products bearing ISI marking shall be used in the work. Other products should be supplied as per the brand name mentioned in the Technical Specifications.

3. DETAILED DRAWINGS AND INSTRUCTIONS

The Owner through its Architects shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of the work. All such drawings and

instructions shall be consistent with the Contract Documents, true developments thereof, and reasonably inferable there from.

The work shall be executed in conformity therewith and the contractor shall not work without proper drawings and instructions. Immediately after receipt of the work order of the contract the contractor shall prepare a progress schedule and submit the same to the Owner through the Architects for approval which shall indicate the dates for the starting and completion of the various stages of constructions.

4. COPIES FURNISHED

The contractor on the signing hereof shall be furnished by the Owner through its Architect free of charge with a copy of the priced schedule of quantities/rates, two copies of each of the said drawings and one copy of specifications and two copies of all further drawings issued during the progress of the work. Any further copies of such drawings required by the contractor shall be supplied on payment of the charges thereof by the contractor.

5. OWNERSHIP OF DRAWING

All drawings, specification and copies thereof furnished by the Owner through its Architects are the property of the owner. They are not to be used on other work, and with the exception of the signed contract set, are to be returned to the Owner on request at the completion of the work.

6. ROYALTIES & PATENTS

The contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the owner harmless from loss on account thereof.

7. INSPECTION OF WORK

The proposed work covered under this tender during its progress can also be inspected by the chief Technical Examiner/Technical Examiner or by an officer of the vigilance cell of the authority on behalf of the Owner/Architects.

8. SUPERINTENDENCE SUPERVISION

The contractor shall give all necessary personal superintendence during the execution of the work and this obligation and liability will continue until expiration of the 'Maintenance period' (Retention period). The contractor shall also during the whole time of work when in progress employ a competent representative who shall be constantly in attendance at the site while his means are at work. Any directions, explanations, instructions or notices given by the Owner or the Architects to such representative shall be deemed to have been given and duly served on the contractor.

9. FAILURE BY CONTRACTORS TO COMPLY WITH OWNER'S/ARCHITECT'S INSTRUCTIONS

If the contractor after receipt of written notice from the owner and/or the Architects requiring compliance within ten days fails to comply with such further drawings and/or Owner's/Architect's instructions, the owner through the Architect or other person, may employ other person to execute any such work whatsoever that may be necessary to give effect thereto and pay all cost incurred in connection therewith and same shall be recoverable from the contractor by the Owner on the certificate of the Architect as a debt or shall have right to deduct same from any money due or to become due to the contractor.

10. TENDERER SHALL VISIT THE SITE

Intending tenderer shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport condition, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled on to any claim of compensation for difficulties faced or losses incurred on account of any site condition which existed before the commencement of the work or which in the opinion of the Owner/Architects might be deemed to have reasonably been inferred to be so existing before commencement of work.

11. 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. Initial/signature will indicate the acceptance of the tender papers by the tenderer.

The schedule of quantities shall be filled in as follows :

- i) The 'rate' column to be legibly filled in ink in both English figures and English words.
- ii) Amount column to be filled in for each item and the amount for each sub head as detailed in the "Schedule of Quantities".
- iii) All corrections are to be initialed.
- iv) The "Rate column" for alternative items shall be filled up.
- v) The "Amount" column for alternative items of which the quantities are not mentioned shall not be filled up.
- vi) In case of any errors/omissions in the quote rates, the rates given in the tender marked "original" shall be taken as correct rates.
- vii) When there is difference between the rates in figures and in words the rate which correspond to the amounts worked out by the contractor shall be taken as correct.

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

The Owner reserves the right to reject the lowest or any tender and also to discharge any or all 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 the 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 Owner /Architects detailed analysis of any or shall the rates shall be submitted. Owner/Architects shall not be bound to recognize the contractor's analysis.

The work will be paid for as "measured work" on the basis of actual work done.

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respect and details including preparatory and finishing work involved, directly, related to personally 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 any 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 will be assessed to be payable by the Owner/Architects.

The owner has power to add to omit from any work as shown in drawings or described in specifications or included in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the Owner. No variation shall vitiate the contract.

The tenderer shall note that his tender shall remain open for consideration for a period of 120 days from the date of opening of the tender.

12. SHCHEDULE FOR COMMENCEMENT OF WORK

The contractor shall submit a time and progress chart in a form approved by the owner through its Architects within fifteen days from the date of issue of work order or the date on which the contractor is instructed to take possession of the site, whichever is later.

During the period of Construction, the contractors shall maintain proportionate progress on the basis of the Programme Chart submitted by the Contractor immediately before the commencement of the work and agreed by the Employer/Consultants. This Programme chart shall clearly indicate the completion of project. The contractors shall also include planning for procurement of scarce material well in advance and reflect the same in the Programme chart so that there is no delay in the completion of the project. The Programme Chart shall have to be updated at regular intervals and modified programme shall be submitted to the Architects/Owner for approval.

13. CO-OPERATION

The contractor will be required to consult and co-operation with other contractors whose work may be affected by the work under this contract.

14. TREASURE TROVE ETC.

Any treasure trove, coin or object antique which may be found on the site shall be the property of the Owner and shall be handed over to the Owner.

15. PERMITS AND LICENSES

Permits and licenses for release of materials which are under Government control will be arranged by the contractor. The owner will render necessary assistance, sign any forms or applications that may be necessary.

16. GOVERNMENT AND LOCAL RULES

The contractor shall conform to the provisions of all local Bye-laws and Acts relating to the work and to the Regulations etc of the Government and Local Authorities and of any company with whose system the structure is proposed to be connected. The contractor shall give all notices required by said Act, Rules, Regulations and Bye-laws etc and pay all fees payable to such authority/authorities for execution of the work involved. The cost, if any, shall be deemed to have been include in his quoted rates, taking into account all liabilities for licences, fees for footpath encroachment and restorations etc and shall indemnify the owner against such liabilities and shall defend all actions arising from such claims o liabilities.

17. TAXES AND DUTIES

The tenderers must include in their tender prices quoted for all duties royalties, cess and sales tax or any other taxes or local charges if applicable. The rates shall also include prevailing sales tax on work contract as per State Government norms. No extra claim on this account will in any case be entertained.

18. POSSESSION PRIOR TO COMPLETION

The owner shall have the right to take possession of or use any completed or partially completed part of the work. Such possession or use shall not be an acceptance of any work not completed in accordance with the contract Agreement.

19. EXCEPTED MATTERS

If the dispute or differences pertain to the undernoted matters the decision in writing of the officer designated in and signing the contract documents shall be final, conclusive and binding on the parties.

- i) Instructions.
- ii) Transactions with Local Authorities.
- iii) Proof of quality of materials.
- iv) Assigning or under relating of the contract.
- v) Certificate as to the causes of delay on the part of the contractor and justifying extension of time.
- vi) Rectifying of defects pointed out during the Defects Liability period.
- vii) Notice to the contractor to the effect that he is not proceeding with due diligence.
- viii) Certificate that the contractor has abandoned the contract.
- ix) Notice of determination of the contract by the Employer.

20. QUANTITY OF WORK TO BE EXECUTED

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the owner reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore. Variation in the value is however not expected to be more than +_ 25%.

21. OTHER PERSON ENGAGED BY THE OWNER

The owner reserves the right to execute any part of the work included in this contract by other Agency or person and contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The main contractor shall extend all co-operation in this regard.

22. A. EARNEST MONEY AND SECURITY DEPOSIT

The tenderer will have to deposit an amount of **Rs. 8,000.00** in the form of Demand Draft/Pay Order /Banker's Cheque drawn in favour of UCO Bank at the time of submission of tender as an Earnest Money. The owner is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken or after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit as "initial security deposit" (ISD) a further sum to make up 2% of the value of the accepted tender including the Earnest Money. ISD may be submitted in the form of Demand Draft/Pay Order. The initial Security Deposit will have to be made within 14 days from the date of acceptance of tender, failing which the owner at his discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with the tender.

Apart from the initial security deposit made as above, **retention money shall be deducted from final bill @ 10% of the gross value of bill.**

Once the Contractor has completed the total work, the Contractor should remove his materials, equipments, labour force, temporary sheds, stores etc from the site , then only, virtual completion certificate shall be issued by the Architect/Owner.

100% of the retention amount shall be refunded 14 (fourteen) days after the end of defects liability period provided he has satisfactorily carried out all the work and attended to all defects in accordance with the conditions of the contract. However, the retention money will not be refunded to the contractor even after completion of defect liability period, in case observation of Chief Technical Examiner of C.V.C. is not cleared. No interest is payable on retention money. Further if some dues to the owner from the contractor(s) have still to be recovered the owner reserves the right to withhold payment of so much of the retention money as in his opinion represents the cost of the same.

22. B. PERFORMANCE SECURITY

Within 3 days of receipt of the letter of award the successful tenderer shall furnish to UCO Bank performance security for an amount of 3 % (three percent) of the contract price in the shape of Demand Draft or pay order or Bank Guarantee from a Nationalised or Foreign Bank acceptable to the employer. Failure of the successful tenderer to furnish the performance security shall constitute sufficient grounds for the annulment of the award and forfeiture of Initial Security Deposit. In this event the employer may make the award to other tenderer according to the position prevailing at the appropriate time. Failure to complete work as per agreement performance security would be forfeited and no claim in this regard will be entertained by Bank.

23. 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 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 Owner/Architects whose decision shall be final and binding. The contractor shall provide himself for ground and fresh water for carrying out of the work at his own cost. The owner shall on no account be responsible for the expenses incurred by the contractor for hired ground or fresh water obtained from elsewhere.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplation of the contract, and beyond the unit price no extra payment will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the 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 the necessary centering scaffolding, staging, planking, timbering, strutting, showing, pumping, fencing, boarding, watching and lighting by night as well as by day required not only for the proper execution and protection of the said work but also for the protection of the public and safety of any adjacent roads, streets, walls, house, buildings, strutting, shoring etc as occasion shall be required or when ordered so to do and shall fully reinstate and make good all matters and things disturbed during the execution of works to the satisfaction of the Owner/Architects.

The contractor shall also provide such temporary road on the site as may be necessary for the proper performance of the contract and for his own convenience but not otherwise. Upon completion, such roads shall be broken up and leveled where so required by the drawings unless the owner shall otherwise direct.

The contractor shall at all times give access to workers employed by the owner or any men employed on the building and to provide such parties with proper sufficient and if required, special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc in any work, where directed by the owner as may be required to enable such workmen to lay or fix pipes, electrical wiring, special fittings etc. the quoted rates of the tenderers shall accordingly include all these above mentioned contingent works.

24. TIME OF COMPLETION EXTENSION OF TIME & PROGRESS CHART

24.1 Time of completion: The entire work is to be completed in all respects within the stipulated period. The work shall deemed to be commenced within fourteen days from the date of acceptance letter or date of handing over of site, whichever is earlier. Time is the essence of the contract and shall be strictly observed by the contractor. The work shall not be considered as complete until the Owner/Architects have certified in writing that this has been completed and the Defects Liability Period shall commence from the date of such certificate.

24.2 Extension of Time: If in the opinion of the Owner/Architects the works be delayed (a) by reason of any exceptionally inclement weather, or (b) by reason of instructions from the owner in consequence of proceedings taken or threatened by or disputes, with adjoining or neighboring owners or (c) by the works, or delay of other contractors or tradesmen engaged or nominated by the owner and not referred to in the specification or (d) by reason of authorized extra and additions or (e) by reason of any combination of workmen or strikes or lock-out affecting any of the building or trades or (f) from other causes which the owner may consider are beyond the control of the contractor, the owner at the completion of the time allowed for the contract shall make fair and reasonable extension of time for completion in the respect therefore. In the event of the owner failing to give possession of the site upon the day specified above the time of completion shall be extended suitably.

In case of such strikes or lockouts, as are referred to above, the contractor shall, immediately give the owner, written notice thereof. Nevertheless, the contractor shall use his best endeavours to prevent delay and shall do all that may be reasonably required, to the satisfaction of the owner to proceed with the works and on his doing so that it will be ground of consideration by the owner for an extension of time as above provided. The decision of the owner and to the period to be allowed for an extension of time for completion hereunder (which decision shall be final and binding on the contractor) shall be promulgated at the conclusion of such strike or lock-out and the owner shall then, in the event of an extension being granted, determine and declare the final completion date. The provision in clause 61 with respect to payment of liquidated damages shall, in such case, be read and construed as if the extended date fixed by the owner were substituted for and the damage shall be deducted accordingly.

24.3 Progress of work: During the period of construction the contractor shall maintain proportionate progress on the basis of a programme chart submitted by the contractor immediately before commencement of work and agreed to by the Owner/Architects. Contractor should also include planning for procurement of scarce material well in advance and reflect the same in the programme chart so that there is no delay in completion of the project.

25. TOOLS, STORAGE OF MATERIALS, PROTECTIVE WORKS AND SITE OFFICE REQUIRMENTS

The contractor shall provide, fix up and maintain in an approved position proper office accommodation for the contractor's representative and staff which offices shall be open at all reasonable hours to receive instruction notices or communications and clear away on completion of the work and make good all work disturbed.

All drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants, and other insects.

The contractor shall provide at his own cost all artificial light required for the work and to enable other contractor and sub-contractors to complete the work within the specified time.

The contractor shall provide a suitable temporary hut for the watchmen and clear away the same when no longer required and to provide all necessary attendance, lights etc required.

The contractor shall arrange for temporary latrines for the use of workers and filed staff and keep the same in a clean and sanitary condition to the satisfaction of the public health authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall make good all the works disturbed by these convenience.

Every precaution shall be taken by the contractor to prevent the breeding of mosquitoes on the work during the construction, and all receptacles, cistern, water tanks etc used for the storage of water must be suitably protected against breeding of mosquitoes. The contractor shall indemnify the owner against any breach of rules in respect of anti-malarial measures.

The contractor shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed or upon any boarding gantry, building structure other than those approved by the owner.

Protective Measures: The contractor from time to time of being placed in possession of the site must make suitable arrangements for watching, lighting and protecting the work, the site and surrounding property by day, by night, on Sundays and other holidays.

Contractor shall indemnify the owner against any possible damage to the building, roads, or members of the public in course of execution of the work.

The contractor shall provide necessary temporary enclosures, gates, entrances etc for the protection of the work and materials and for altering and adopting the same as may be required and removing on completion of the works and making good all works disturbed.

Storage of Materials: The contractor shall provide and maintain proper sheds for the proper storage and adequate protection of materials etc and other work that may be executed on the site including the tools and materials of nominated sub-contractors and remove same on completion.

Tools: Theodolite, levels, prismatic compass, chain, steel and metallic tapes and all other surveying instruments found necessary on the works shall be provided by the contractor for the due performance of this contract as instructed by the site Engineer.

All measuring tapes shall be of steel and suitable scaffolding and ladders that may be required for safely taking measurement and shall be supplied by the contractor.

The mistries and the supervisors on the works shall carry with them always a one metre or two metre steel tape, a measuring tape of 30 metres, a spirit level, a plumb bob and a square and shall check the work to see that the work is being done according to the drawing and specifications. The site engineer will use any or all measuring instruments or tools belonging to the contractors as he chooses for checking the works executed or being executed on the contract.

The contractor should over in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc by nominated sub-contractors for their work.

26. NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNER

The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-laws of any authorities, and/or any water, lighting and other companies, and/or authorities with whose system the structures were proposed to have connection and shall before making any variation from the drawings or specification that may be associated to so conform, give the Owner/Architects written notices specifying the variations proposed to be made and the reason for making them and apply for instruction thereon. The Owner/Architects on receipt of such intimation, shall give a decision within a reasonable time.

The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to given to any authority and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the owner.

The contractor shall indemnify the owner against all claims in respect of patent rights, royalties, damages to buildings, roads or members of public in course of execution of work and shall defend all actions arising from such claims and shall keep the Owner saved harmless and indemnified all respects from such actions, costs and expenses.

27. CLEARING SITE AND SETTING OUT WORKS

The site shown on the plan shall be cleared of all obstructions, loose stone, and materials rubbish of all kinds. All holes or hollows whether originally existing or produced by removal or loose stone or materials shall be carefully filled up with earth well rammed and leveled off as directed at his own cost.

The contractor shall set out the works and shall be responsible for the true and perfect setting out of the work and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of the work irrespective of the fact that the layout had been approved by the Owner /Architects, the contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the owner. The contractor shall further set out the works

to the alternative positions at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

28. CONTRACTOR IMMEDIATELY TO REMOVE ALL OFFENSIVE MATTERS

All soil, filth or other matters of any offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface but shall be at once carted away by the contractor to place provided by him. The contractor shall keep the foundations and work free from water and shall provide and maintain at his own expenses electrically or other power driven pumps and other plants to the satisfaction of the owner for the purpose, until the building is handed over to the owner. The contractor shall arrange for the disposal of the water so accumulated to the satisfaction of the owner and local authority and no claims will be entertained afterwards if he does not include in his rates for the purpose.

29. ACCESS

Any authorized representative of the owner shall at all reasonable times have free access to the work and/or to the workshops, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained, and the contractor shall give every facility to the owner or their representative necessary for inspection and examination and the owner no person shall be allowed at any time without the written permission of the owner.

30. MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS

All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workman like manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by the Owner /Architects during the execution of the work, and to his entire satisfactions.

If required by the owner/Architects the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Owner/Architects at his own cost to prove that the materials etc , under test conform to the relevant I.S.I. standards or as specified in the specifications. The necessary charges for preparation of mould (in case of concrete cube) transporting, testing etc, shall have to be borne by the contractor. No extra payment on this account should in any case be entertained.

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales tax, octroi and other charges and must be the best of their kind available and the contractor/s must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best working manner. Samples of all material to be used must be submitted written approval from Owner/Architects must be obtained prior to placement of order.

During the inclement weather the contractor shall suspend concreting and plastering for such time as the Owner/Architects may direct and shall protect from injury all work when in course of execution. Any damage (during constructions) to any part of the work for any reason due to rain, storm, or neglect of contractor shall be rectified by the contractor in an approved manner at no extra cost.

Should the work be suspended by reason of rain, strike, lock-outs or any other cause, the contractor shall taken all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these causes.

The contractor shall cover up and protect from damage, from any cause, all new work and supply all temporary/doors, protection to windows, and any other requisite protection for the execution of the work whether by himself or special tradesmen or nominated sub-contractor and any damage caused must be made good by the contractor at his own expenses.

31. REMOVAL OF IMPROPER WORK

The owner shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or time as may be specified in the order of any materials which in the opinion of the owner architects are not in accordance with specification or instructions, the substitution or proper re-execution of any work executed with materials or workmanships not in accordance with the drawings and specifications or instructions. In case the contractor refuses to comply with the order the owner shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Owner/Architects shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate which may be given by the Architects shall relieve the contractor from his liability in respect of unsound work or bad materials.

32. SITE ENGINEER/PMC

The term "site engineer/PMC" shall mean the person /agency appointed and paid by the owner to superintend the work. The contractor shall afford the Site Engineer/PMC every facility and assistance for examining the works and materials and for checking and measuring work and materials. The Site Engineer/PMC shall have no power to revoke, alter, enlarge or relax any requirements of the contractor or to sanction any day work, except in so far as such authority may be specially conferred by a written order of the owner.

The Site Engineer /PMC shall have power to give notice to the contractor or his foreman, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discounted until the decision of the owner is obtained. The work will from time to time be examined by the Architects, Engineer from the premises department of the owner and the site engineer. But such examination shall not in any way exonerate the contractor from the obligation to remedy any defects which may be found to exist at any stage of the work or after the same is complete. Subject to the limitations of this clause the contractor shall take instructions only from the Architects /Owner.

33. OFFICE ACCOMMODATION FOR THE SITE ENGINEER R/PMC

The contractor shall provide, erect, and maintain at his cost a separate simple watertight office accommodation for the Site Engineer/PMC. This accommodation shall be well lighted and ventilated and provided with windows, door with a lock. The Site Engineer's /PMC's office shall be a minimum of 150sq.ft and the contractor shall provide a desk, chairs, drawers for keeping drawings, a cupboard having proper lock, telephone connection, electric fan and a tackboard for displaying drawings. Electricity charges for light fan etc and telephone bills will be borne by the contractor. The accommodation shall be demolished when directed.

34. CONTRACTOR'S EMPLOYEES

The contractor shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Owner /Architects. The contractor shall engage at least one experienced Engineer as Site In-charge for execution of the work. The contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently.

The contractor shall employ local laborers on the work as far as possible.

No laborer below the age of sixteen years and who is not an Indian National shall be employed on the work.

Any laborer 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 the owner or his representative shall be deemed to be a person employed by contractor.

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

- a) The payment of wages act
- b) Owner's liability act

- c) Workmen's compensation act
- d) Contract labour (regulation & abolition) act, 1970 and Central Rules 1971.
- e) Apprentices act 1961.
- f) Any other Act or enactment relating there to and rules framed thereunder from time to time.

The contractor shall keep the owner saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the owner in connection with any claims 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 the state or any local authority or of the owner regarding the maintenance of proper environmental sanitation of the area where the contractor's labourers are housed or accommodated for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The contractor shall provide, maintain and keep in good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all time for the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The contractor shall arrange to provide first-aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the authority where such report is required by law.

35. DISMISSAL OF WORKMEN

The contractor shall on the request of the owner immediately dismiss from works any person employed thereon by who may in the opinion of the owner be unsuitable or incompetent or who may misconduct himself. Such discharges shall not be the basis of any claim for compensation or damages against the owner or any of their officer or employee.

36. ASSIGNMENT

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take a new partner, without written consent of the owner and no subletting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

All specialists, Merchants, Tradesmen and others executing any work or supply and fixing any goods for which prime cost prices or provisional sums are included in the schedule of quantities /rates and/or specifications who may be nominated or selected by the owner are hereby declared to be sub-contractors employed by the contractor and are herein referred to as nominated sub-contractors.

No nominated sub-contractors shall be employed on or in connection with the works against whom the owner shall make reasonable objection or save where the owner and contractor shall otherwise agree who will not enter into a contract provided.

- a) That the nominated sub-contractor shall indemnify the contractor against the same obligations in respect of the sub contract as the contractor is under in respect of this contract.
- b) That the nominated sub-contractor shall indemnify the contractor against claims in respect of any negligence by the sub-contractor, his servants or agents or any misuse by him or them of any scaffolding or other plants the property of the contractor or under any workmen's compensation act in force.

c) Payment shall be made to the nominated sub-contractor by the contractor within fourteen days of his receipt of the Architect's certificate provided that before any certificate is issued the contractor shall upon request furnish to the Architects proof that all nominated sub-contractor's accounts include in previous certification have been duly discharged, in default where of the owner may pay the same upon a certificate of the Architect and deduct the amount thereof from any sums due to the contractor. The exercise of this power shall not create privacy of contract between the owner and the sub-contractor.

37. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC

The contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include inter-alia, any damages buildings whether immediately adjacent or otherwise, and any damage to roads, streets, foot paths or ways as well as damages caused to the buildings and the works forming the subject to this contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the owner and hold harmless in respect of all and any expenses arising from any such injury or damages to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of compensation or damages consequent upon such claim.

The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect and so as make good or otherwise satisfy all claims for damages to the property or third parties.

The contractor shall effect the insurance necessary and indemnify the owner entirely from all responsibility in this respect. The insurance must be placed with a company approved by the owner and must be effected jointly in the name of the contractor and the owner (the name of the latter being placed first in the policy i.e. UCO Bank A/c _____)

Contractor's Name and the policy lodged with the latter. The scope of insurance is to include damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be effected for the every initial stage. The contractor shall also be responsible for any thing which may be or defective carrying out of this contract i.e. the Contractor's All Risk Insurance shall have extension for covering cross liability arising, if any, during execution of work relating to Air Conditioning, Electrification, Erection of Life etc.

The bank/owner shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sums due or to become due to the contractor.

38. INSURANCE

Unless otherwise instructed the contractor shall insure the work and keep them insured until the virtual completion of the contract against loss or damage by fire and/or earthquake, flood. The insurance must be

placed with a company approved by the owner, in the joint names of the owner and the contractor for such amount and for any further sum if called to do so by the owner, the premium of sum being allowed to the contractor as an authorized extra.

The contractor shall deposit the policy and receipt for premiums paid with the owner within 21 (twenty one) days from the date of issue of work order unless otherwise instructed. In default of the contractor insuring as provided above, the owner on his behalf may so insure and may deduct the premiums paid from any money due, or which may become due to the contractor. The contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as through the fire has not occurred and in all respects under the conditions of the contract. The contractor in case of

rebinding or reinstatement after fire shall be entitled to extension of time for completion as the owner may deem fit.

39. ACCOUNTS RECEIPTS & VOUCHERS

The contractor shall, upon the request of the Owner furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the work under this contract. If the contractor shall use materials less than what he is required under the contract, the value of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the Owner shall be final and binding on the contractor as to the amount of materials the contractor is required to use for any work under this contract.

40. MEASUREMENT OF WORKS

40.1 The measurements shall be generally recorded by the Site Engineer or by an employee or an agency of the Bank, specially authorized for the purpose, e.g. a project Management Consultant.

40.2 The Site Engineer (or his representative) or PMC wherever PMC is deployed separately for supervision shall take joint measurements (i.e. accompanied by the contractor's authorized representative) of the work as it progress and record them directly in the Measurement Books.

40.3 It shall be ensured that the method of measurement is in accordance with the contract. The precision in measurements shall be as laid down in IS-1200. Any points of disagreement with the contractor pertaining to measurements shall be promptly referred to the decision of the Competent Authority.

40.4 Extra/deviated items, as claimed by the contractor, shall not be recorded in Measurement Book until they are approved by the Competent Authority.

40.5 In case some allegedly extra/deviated item is carried out by the contractor while complying with approved drawings and specifications and the same is to be covered up, the Site Engineer or Project Management Consultant shall check the item and its specification and record its measurements but simultaneously enter up the proviso that their admittance is subject to the approval by the Competent Authority. Both the measurements and the proviso shall be got signed by the contractor.

40.6 The measurement book shall not be handed over to the contractor at any time. The contractor or his representative may be permitted by the Site Engineer or Project Management Consultant to see it in his presence and /or make a (concurrent) copy of his own. The contractor shall, however, be warned that his copy shall be regarded as an unofficial copy of the Bank's Measurement Book. This is the only authorized document in the matter.

40.7 The measurement shall be signed at the end of each session of measurement of the day's work, as the case may be, by both the parties (i.e. Measurer/Site Engineer and the contractor).

41. CONCEALED WORK

The contractor shall give due notice to the Employer wherever any work is to be buried in the earth concrete or in the bodies of walls or otherwise, becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the opinion of the Employer's either opened up for measurement at the contractor's expenses or no payment may be made for such materials, should any dispute or difference arise after the execution of any work as to measurements etc or other matters which cannot be conveniently tested or checked, the notes of the employer shall be accepted as correct and binding on the contractor.

42. PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Owner/Architects after the measurements are endorsed as mentioned in Clause No.40 (Measurement of works). Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents. The bills in proper form must be duly accompanied by detailed measurements in support of the quantities of work done and must show deduction for all previous payments, retention money, etc.

The Architects shall issue a certificate after due scrutiny of the contractor's bill stating the amount due to the contractor from the owner. The owner will have the discretion to amend the certificate of

Architects if considered necessary and the contractor shall be entitled to payment thereof, within the period of honoring certificates named in the these documents.

The amount stated in an interim certificate shall be the total value of work properly executed and approx 75% of assessed value of not perishable material brought to site for permanent incorporation into the work upto the date of the bill less the amount to be retained by the owner as retention money vide Clause 22.A of the conditions and less installments previously paid under these conditions provided that they are of a durable/non-fragile nature and that an Indemnify Bond is drawn up with the contractor under which the Bank secures a line on the materials and safe guarded against losses due to contractor postponing the execution of the work or to the shortage or misuse of materials and against the expenses entailed, if any, for their proper watch with safe custody. Recoveries of advance so made should not be postponed until whole of the work entrusted to the contractor is completed. This should be made from his bills for works done as the materials are used. The necessary deductions being made wherever the item of work in which they are used and billed for.

The owner will deduct retention money as described in Clause 22.A of these conditions. The refund of retention money will be made as specified in the said clause.

If the owner has supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to the contractor in accordance with the quantities consumed in the work.

All the interim payments shall be regarded payments by the way of advance against the final payment only and no as payments for work actually done and completed and shall not preclude the requiring of bad, unsound, and 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 in any respect or the accruing of any claim, nor shall, it conclude determine or affect in anyway the power of the owner under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way very or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work or of the date of certificate of completion furnished by the Site Engineer/PMC and payment shall be made within four months from the date of receipt of the final bill by the Architects.

43. FINAL PAYMENT

The final bill shall be accompanied by a certificate of completion from the Owner/Architects. Payments of final bill shall be made after deduction of Retention Money as specified in Clause 22A of these conditions, which sum shall be refunded after the completion of the Defects Liability period after receiving the Owner's/Architect's certificate that the contractor has rectified all defects to the satisfaction of the Owner/Architects. The acceptance of payment of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

44. VARIATION/DEVIATION

The contractor may when authorized and shall, when directed in writing by the employer and or omit, or vary the works shown in the drawings or described in the specifications include in the priced schedule of quantities. The contractor on his own accord shall make no addition, omission or variation without such authorization or direction. A verbal authorization or direction by the Employer shall when confirmed correctly by the contractor in writing within 8 days shall be deemed to have been given in writing.

The contractor shall send to the Architect/Employer once in every month a statement giving particulars, as full and detailed as possible, of all claims for any additional payment to which the contractor may consider himself entitled and of all extra or additional work ordered by the Employer which he has executed during the preceding month.

No final interim claim for payment for any such work or expenses will be considered which has not been include in such a statement provided always that the architect shall be entitled after taking employer's sanction to authorize payment to be made for any such work or expense, notwithstanding the contractor's failure to comply with this condition, if the contractor has, at the earliest practicable opportunity, notified the architects in writing that he intends to make a claim for such work.

The rates for additional, altered, substituted work shall be arrived at in accordance with the following rules:

- i) The net rates of prices in the contract schedule shall determine the valuation of (the rates for) the extra work (items) where such extra work is of similar character and is executed under similar conditions as the work priced therein.
- ii) If the rates for the extra, altered or substituted (deviated) work are not provided for (available) in the contract schedule, they shall to the extent possible be derived out of rate given in that schedule for similar or near similar items. For the purpose of such deviation, where necessary and when so directed, the contractor shall furnish detailed analysis for the said similar or near similar items in the contract schedule. For such portions of the analysis, for the extra, altered or substituted (deviated) work for which prices cannot be abstracted from the corresponding analysis of rates for the said similar or near similar items in the contract schedule, market rates substantiated by purchase bills/vouchers dependable printed price schedules of building materials of different types shall be adopted, using factors and constants for quantum of material, labour T&P and sundries from standard analysis of rates adopted by the National Building Organisation, Ministry of Works & Housing, Govt of India in preparation of All India Standard Schedule of Rates 1977 and adding 15% over towards profits and overheads. When called upon to do so the contractor shall submit the required purchase bill/vouchers.
- iii) In respect of a contract which incorporates more than one schedule the rate applicable in case
 - (i) above if not provided for in the schedule pertaining to the work in which the addition, alternation or substitution (deviation) occurs shall be taken as the lowest applicable rate in other schedule. Similarly in case (ii) above if similar or near similar items cannot be found in the schedule pertaining to the work in which the addition, alteration or the other schedule shall be adopted.
- iv) In the case of additional, altered or substituted (deviated) with for which rates cannot be reasonably be derived as at (ii) and (iii) above, the rates shall be worked out adopting market prices, substantiated by purchase bill/vouchers, T&P and sundries from standard analysis of rates adopted by the National Building Organisation, Ministry of Works & Housing, Govt. of India in preparation of All India Standard Schedule Rates, 1977 and addition 15% towards profit and overheads. When called upon to do so the contractor shall submit his purchase bills/vouchers to the architects and employer.
- v) The tender rates will hold good for any increase and decrease in the tender quantities up to a variation of 25% except in the case of item below plinth level where the variation will be up to 100%. For variation beyond and above limit the rates for the respective items for quantity beyond the limits mentioned above may be worked out on market rates.
- vi) The question as to what particular items, being similar or near similar to the additional, altered or substituted (deviated) work in the contract schedule are to be adopted for deviation of rates for the additional, altered for substituted (deviation) work and whether the said rates cannot be derived from similar or near similar items in the contract schedule will be decided by the Employer.
- vii) In case (ii) to (iv) the contractor is required to submit his analysis of rates adopting the principles enunciated and the architect, after scrutinizing the analysis and other person furnished will allow such rates as he considers reasonable after obtaining Employer's sanction.
- viii) Where extra work is of such a nature that it cannot be properly measured or valued the contractor shall be allowed day work priced at the net rates stated then in accordance with the minimum local day work rates and wage for the district notified by the concerned authority provided that in either case if required by the architects, vouchers, muster rolls and other documents, required for proper verification of the labour employed and the materials deployed on the said work and the costs thereof be delivered to the architect or his representative on or before the end of the week following that in which the work has been executed.

The question as to whether extra work is of such nature that it cannot be properly measured or valued will be decided by the architects. The margin to be allowed on actual costs to the contractor towards profit and overhead shall be 15%.

45. SUBSTITUTION

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Owner/Architects in writing for any such substitution well in advance. Materials

designated in this specifications indefinitely by such term as "Equal" or "other approved" etc. specific approval of the Owner/Architects has been obtained in writing.

46. PREPARATION OF BUILDING WORKS FOR OCCUPATION AND USE ON COMPLETION

The whole of the work will be thoroughly inspected by the contractor and deficiencies and defects put right. On completion of such inspection the contractor shall inform the Employer that he has completed the work and it is ready for inspection. On completion the contractor shall clean all windows and doors including the cleaning and oiling if necessary, of all hardware, inside and outside, all floors, staircases, and every part of the building. He will leave the entire building neat and clean and ready for immediate occupation and to the satisfaction of the owner.

47. CLEARING SITE ON COMPLETION

On completion of the works the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Owner/Architects.

48. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, shrinkage, settlements or other faults which may appear within 12 months after completion of the work. In default the owner may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the owner or may be deducted by the owner, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in event of the amount retained being insufficient, recover that balance from the contractor from the amount retained under Clause No. 22 together with any expenses the owner may have incurred in connection therewith.

49. ESCALATION

The rate 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, sale tax, etc. unless specifically provided in these documents.

50. IDLE LABOUR

Whatever the reason may be, no claim for India labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

51. SUSPENSION

If the contractor except on account of any legal restraint upon the Owner preventing the continuance of the work

or in the opinion of the Owner shall neglect or fail to proceed with due diligence in the performance of his part of

the contract or if he shall more than once make default, the Owner shall have the power to give notice in writing to

the contractor requiring the work be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be a notice under this clause.

After such notice shall have been given the contractor shall not be at liberty to remove from the site of the

works or from any ground contiguous thereto any plant or materials to subsist from date of such notice being

given until the notice shall have been complied with. If the contractor fail to start the work within 7 (seven) days after such notice has been given to proceed with the work as therein prescribed, the owner may proceed as provided in Clause 52(Termination of Contract by owner).

52. TERMINATION OF CONTRACT BY EMPLOYER/BANK

If the contractor being a company go into liquidation whether voluntary or compulsory or being an individual shall be adjusted insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a Deed or agreement with his creditors, or if the official Assignee in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a Receiver of the contractor's firm appointed by the court shall be unable within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Employer that he is able to carry out and fulfill the contract, and if so required by the employer to give reasonable security therefore, or if the contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to the contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned enquiring the contractor to observe or perform the same or shall use improper materials or workmanship in carrying on the works, or shall in the opinion of the Owner not exercise such diligence and make such due progress as would enable the work to be completed within due time agreed upon and shall fail to proceed to the satisfaction of the Owner after three clear days notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned, shall abandon the contract, then and in any of the side cases, the owner may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby affecting the powers of the owner of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract, had not been so determined and as if the works subsequently executed had been executed by or on behalf of the contractor (without thereby creating any trust in favor of the contractor) further the owner or his agent, or servants, may enter upon and take dissensions of the work and all plants, tools, scaffoldings, sheds, machinery, steam and other power, utensils and materials lying upon premises or adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works, and the contractor shall not in any way interrupt or do any act, matter or things to prevent or hinder such other contractors or other persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be, the owner shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within a period of 14 days after receipt by him the owner may sell the same by public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the owner in getting the works carried out by other contractors shall be adjusted against the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractors or against the security deposit.

53. WATER SUPPLY

The rates quoted by the contractor shall include all expenditure for providing water for the full contract period required for the works, including that for the work people and all staff on the site. He shall make his own arrangement for the supply of good quality water suitable for us in the work and the work people. He shall obtain municipal connection, and all charges for connection and consumption shall be borne by him. If municipal water is not available, or making, he shall make other arrangements like sinking tube wells, or making bore-wells, or transport from outside by tanker, or any other suitable means entirely at his cost, and no separate payment for the same will be made.

54. POWER

The contractor shall at his own cost arrange for necessary power for construction and lighting for the entire period of contract. The owner, as well as the Architects shall give all the recommendations necessary to obtain power and water connections from the concerned authorities, but the responsibility

for obtaining the same shall rest with the contractor.

If any other contractor, appointed by the owner, is required to use water and power, he shall be allowed to use the same and make temporary connections from the supply arranged by the main contractor at rates and terms that may be mutually agreed upon by both, failing which, at rates, term and conditions that may be decided by the Architect.

55. LAND FOR CONTRACTOR'S ESTABLISHMENT

For the purpose of contraction of contractor's store yard, godowns, site office, etc. the contractor may utilize with the permission of the Architect, portion of the land belonging to the owner if available at such location as would not interfere with the execution of the works. The contractor shall for this purpose submit to the Architect for his approval a plan or plans of the proposed layouts for the site facilities. The Architects reserves the right to alter and modify the contractor's proposal as he may deem fit.

56. METHOD OF MEASUREMENT

Unless otherwise mentioned elsewhere in the tender measurement will be on the net quantities or work produced in accordance with up to date rules laid down by the Indian Standard Institution. In the event of any dispute with regard to the measurement of the work executed, the decision of the Architects /Owner shall be final and binding on the contractor.

57. ACTION WHERE NO SPECIFICATION

In the case of any class of work for which there is no such specification in Technical Specification, such work shall be carried out in accordance with the I.S. Specification and in the event of there being no I.S. Specification, then in such case the work shall be carried out in all respects in accordance with the Instruction and requirements of the Architects/Owner.

58. CONTRACTOR NOT TO DEPOSIT MATERIALS IN A MANNER THAT MAY BE INCONVENIENT TO THE PUBLIC

The contractor(s) shall not deposit materials on any site which will seriously inconvenience the public. The Architects may require the contractor to remove any materials, which are considered by him to be a danger or inconvenience to the public or cause them to be removed at the contractor's cost.

59. LIQUIDATED DAMAGES

Should the work be not completed to the satisfaction of the Owner /Architects within the stipulated period, the contractor shall be bound to pay to the owner a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains uncommenced or unfinished after the expiry of the completion date.

- | | | |
|----|---------------------------------|-----------------------------------------------------------------------------------------------|
| a) | for contracts having stipulated | : 1. 0% of the estimated amount shown in the tender |
| | time for completion 6 months | per week of delay subject to ceiling of 10% of the |
| | and less | accepted contracted sum, accrual of which entitles the Employer/Bank to rescind the Contract. |

60. ACTION WHEN WHOLE OF SECURITY DEPOSIT IS FORFEITED

In any case in which under any clause or clauses of this contract, the contractor shall have rendered himself liable to pay liquidated damages amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) the Owner / Architects shall have power to adopt any of the following courses as they may deem best suited to the interest of the Owner :

- a) To rescind the contract (of which rescission notice in writing to the contractor under hand of the Owner /Architects shall be conclusive evidence, and in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the Owner.
- b) To employ labour paid by the Owner and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and price of material (of the amount of which cost and price of a certificate of the Architects /Owner shall be final and conclusive against the contractor) and crediting him with the value of work done , in all respects in the same

manner and at the same rates as if it had been carried out by the contractor under the terms of this contract the certificate of Architects / Owner as to the value of the work done, shall be final and conclusive against the contractor.

- c) To measure up the work of the contractor, and to take such part thereof as shall be unexecuted, out of his hands, and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor and may be deducted from any money due to him by the Owner under the contract or otherwise or from his security deposit or the proceeds of sale thereof, or a sufficient part thereof. In the event of any of above courses being adopted by the Owner /Architects the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements, or make any advances on account of, or with a view to the execution of the work or the performance of the contract, shall be rescind under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum or any work thereto for actually performed under this contract, unless, and until the owner/Architects will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

61. GUARANTEE FOR THE SPECIALISED WORKS

Wherever provision for submission of a guarantee has been advised, the same shall be submitted from the specialized agency along with a counter guarantee by the main contractor engaged for the work. The guarantee shall be furnished on a non-judicial stamp paper of appropriate value. If the contractor is required to submit guarantee/guarantees for any item/items for a period of more than 12 months, the guarantee/guarantees in case of those items shall remain valid even after expiry of the defect liability period for 12 months as stipulated in the contract.

62. INCOME TAX/SALES TAX ON WORK CONTRACT

Statutory deduction of Income Tax/Sales Tax on works contract shall be made from all interim and final payments as per extend statute.

63. AGREEMENT

The successful contractor will be required to enter into an agreement in accordance with the Draft Agreement from enclosed & the schedule of conditions within 15 days from the date of the contractor is advised by the Owner /Architect that his tender has been accepted and he shall pay for all stamps & legal expenses incidental thereto. However, the written acceptance by the Owner of a tender will constitute a binding contract between the Owner and the person so tendering whether such formal agreement is or is not subsequently executed.

64. TECHNICAL EXAMINATION

The proposed work covered under this tender during its progress is subject to inspection by the chief Technical Examiner/Technical Examiner Central Vigilance Commission, Govt. of India or by the an Officer of the Vigilance Cell of the Authority, on behalf of the Engineer-in-charge/Bank's Architects. The contractor will be required to extend all assistance and facilities for such inspections.

65. NO COMPENSATION FOR ALTERATION IN, OR RESTRICTION OF WORK TO BE CARRIED OUT

If at any time after the commencement of the work, the Owner / Architects Shall for any reason whatsoever not require the whole work thereof as specified in the tender to be carried out the Architects/Owner shall give notice in writing of the fact to the contractor who shall have no claim to payment or compensation whatsoever on account of any profit or advantage with which he might have derived from the execution of the work in full, but which he did not derived in consequence of the full amount of the work not having been carried out; neither shall he have any claim for compensation by reason of any alterations having been made in the original

specification, drawing, designs and instructions which shall involve any curtailment of the work as originally contemplated.

66. ARBITRATION

All disputes or difference of any kind whatsoever (except for excepted matters vide clause no. 19) which shall at any time arise between the parties hereto touching or concerning the works or the executions or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contract or the construction remaining operation or effect thereof or the rights or liabilities of the parties or 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 mentioned be 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 thirty day of receipt of the notice to the contractor a panel of three names of persons who shall be presently unconnected with the organisation for which the work is executed.

The contractor shall on receipt of the names as aforesaid, select any one of the persons name to be appointed as a sole Arbitrator and communicate is name to the Employer within thirty days of receipt of the names. The Employer shall thereupon without any delay appoint the said person as the sole Arbitration. If the contractor fail 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 fail to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all be unconnected with either party. The Employer shall on receipt to the named as aforesaid with select any one of the persons names and appoint him as the sole Arbitrator. If the Employer fails to select the person and appoint him as the sole Arbitrator within 30 days of receipt of the panel and inform the contractor shall be entitled to appoint one of the person from the panel as the sole Arbitrator and communicate his name to the Employer.

If the Arbitrator so 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 the contract shall however, continue during the arbitration proceeding and no payment due to payable to the contractor shall be withheld on account of such proceeding .

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both the parties fix in the date of the first hearing.

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

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

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid 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 and amount of costs to be so paid.

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

Subject to aforesaid the provisions of the Arbitrator Act. 1992 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 clause shall be a condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

67. WORKING HOURS

- a) Site Office working hours shall normally be fixed as may be prevailing in the locality.
- b) Normally no construction work of important structural nature shall be carried out on Sundays, Holidays And during nights. In exceptional circumstances, however, the work may be carried out with prior approval of the Site Engineer who shall depute supervising staff to be present on the occasion.

68. SECURITY ARRANGEMENTS

- a) Proper arrangements shall be made to keep all records under lock and key.
- b) The contractors should provides for adequate fences, watch and ward and security of basic materials such as cement and steel etc.
- c) Movement of material, stores and plant, especially of those in which the Bank has got a financial Interest or those which influence progress of work, shall be strictly controlled. Checks shall be exercised at gate (entrance and exit shall be preferably through one gate only.
- d) When the work is completed and handed over to the user. The responsibility of proper security arrangements shall rest with the users.

69. DECLARATION

I/we have inspected the site of work and have made me/us fully acquainted with the local conditions in and around the sites of works. I/we hereby declare that I/we have gone through the conditions laid down in the Notice Inviting Tender, General Conditions of Contract, Technical Specifications and understood the same and on the basis of the same I /we quoted our rates in the schedule of quantities attached with the tender documents.

I /we shall also uniformly maintain such progress with the work, as may be directed by the Owner/Architects to ensure completion of same within the target date as mentioned in the tender document.

Signature of Tenderer

Witness:

Address: _____

Date:

APPENDIX

Name of work	:	ELECTRICAL & AC WORKS OF KULTI BRANCH AND ATM
Location	:	<i>D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal</i>
Scope of work	:	As above and as further detailed in the General Conditions of Contract.
Defect Liability Period (Clause No.48)	:	12 (Twelve Months)
Date of Commencement (clause no.12):	:	from the date of issue of work order or the date on which the contractor is instructed to take Possession of the site, whichever is later.
Date/Time of Completion	:	3 (Three) weeks
Liquidated Damages (clause no. 59)	:	1.0% of the estimated amount shown in the tender per week of delay subject to a ceiling 10% of the accepted contracted sum.
Value of works for interim certificate (clause no. 42)	:	NIL
Earnest Money (clause no. 22.A)	:	Rs. 8,000.00 by DD / PO / Banker's Cheque.
Security Deposit (clause no. 22.A)	:	10% of the executed value of the work
Initial Security Deposit (clause no.22.A)	:	2% (Two percent) of the value of the tender
Performance Security (clause no. 22.B) Draft/pay	:	3% of the contract Value in the form of Demand Order/Bank Guarantee.
Release of Security Deposit	:	100% after 14 (fourteen) days on expiry of defects liability period as per details given in Clause No.22A
Period of Honoring Certificate	:	1) One month for R.A bills.(Clause No.42) 2) The final payment will be made to the contractor As per clause 43 of General Conditions of Contract.

TECHNICAL SPECIFICATIONS

A. GENERAL BUILDING WORKS & WORKMANSHIP

ELECTRICAL WORK

1.1 All installations shall comply with the requirements of the Finding Electricity Rules, 1956, as amended from time to time and as per relevant clauses of National Electrical Code, 1983.

1.2 All materials to be arranged by the Contractor for use in the work must be got approved from the Architect/Consultants well in advance before these are actualized on the work.

1.3 Bad workmanship is liable to be rejected in to.

1.4. The contractor/his supervisor will be bound to sign the site order book and to carry out the instructions given therein.

1.5 All repairs and patch work shall be neatly carried out to match with the original finish and to the entire satisfaction of the Owner/Architect. Any damage to the building due to execution of work shall have to be made good immediately by the contractor at his own cost.

1.6 The Contractor shall make his own arrangements for storing the materials and watch and ward at his own cost, even for the installation till the date of completion and handing over the site.

1.7 The Contractor shall make his own arrangement at his own cost for all general and electrical tools and plants required for the work.

1.8 All debris due to the electrical works shall be removed and site shall be cleared by the Contractor as soon as the work is completed.

1.9 Wiring conduit routes shall be marked at site first and got approved from the Architect/Consultant before the commencement of the actual work.

1.10 The work shall ordinarily be carried out according to the drawings supplied with the schedule of work at the time of award of work, subject to any change made by the Architect/Consultant.

1.11 All the materials to be used are not covered by any one of the above specifications, it should be got approved from the Architect as in conditions No.2 above.

1.12 Unless otherwise mentioned in the schedule of work, the contractor shall use the materials in the work according to the LIST OF RECOMMENDED MANUFACTURERS" enclosed with the CONTRACT DOCUMENT.

1.13 In case the particular make of materials mentioned under conditions 11 & 12 above are not available at the time of execution of the work, the alternative make of materials has to be approved from the Architect/Consultant before its use.

1.14 Thimbles are to be provided wherever required without any extra charges of cables terminations of size 16 sq.mm. above.

- 1.15 The adopter boxes are to be made up not less than 16 SWG thick M.S. sheet.
- 1.16 Where unless specified, the G.I. boxes should be 600mm deep (Inside)
- 1.17 The brass batten holder/angle holders should be of as per ISI specifications and ISI approved.
- 1.18 The work shall comprise of entire labor including supervision and all materials necessary to make a complete installation and such test as commissioning may be required to give a satisfactory working installation to the satisfaction of the company.
- 1.19 The tenderer shall visit the site before quoting the rates and shall submit the tender complete in all details whether such details have been mentioned in the schedule of work or in specifications.
- 1.20 The Contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause for such delays may be.
- 1.21 The Contractor shall add to the amount of their tender sales taxes, excise duty, octroi or any other charges or fees livable by the local or central authorities as it shall be assumed that the contractors rates cover all such taxes and no claim on this account shall be entertained.
- 1.22 No import license is available for any equipment.
- 1.23 All necessary safety features required as per various statutory authorities for the entire installation of work shall be taken into consideration by the Contractor and work to be carriedout accordingly.

CONCEALED CONDUIT LAYING

1. Type and size of Conduit:

All conduit pipe shall be screwed type, solid drawn or welded and with black stove enameled surface or galvanised and of thickness conforming to IS :9537 Part II of 1981 (or latest revision) in all respects. The conduits are to be free from burrs and internal roughness. No conduits less than 20mm in dia shall be used, unless specified.

2. Accessories :

Only screwed type of accessories are to be used.

3. Conduit Joints :

The conduit shall be properly earthed. In long distance straight runs of conduit at reasonable intervals on running threads with couplers and jamnuts. Threads on conduit pipes in all cases shall be between 13mm to 27mm long sufficient to accommodate pipes to full threaded portion of couplers or accessories. Cut end of conduit pipes shall have no sharp edges or any burrs left to avoid damage to insulation of conductor while pulling them through such pipes.

4. Protection against dampness and rust :

In order to minimize condensation and sweating inside the tube, all outlets of pipes system shall be properly drained and ventilated, but in such a manner as to prevent entry to insects inside the conduit.

To protect against rust the outer surface of the conduit and accessories shall be painted and the bare thread portion is to be pointed with anti-corrosive preservative.

5. Bends in Conduits :

All necessary bends in the system including diversion shall be done by bending the pipes, or by inserting suitable inspection type bends, elbows or similar fittings, or by fixing cast iron inspection boxes whichever is most suitable.

6. Maximum capacity of conduits for drawing in of PVC insulated cables shall be as follows :

650/1100V PVC in 20mm dia in 25mm dia
copper wire conduit conduit

1.5 Sq.mm 4 Nos. 10 Nos.

2.5 Sq.mm 4 Nos. 10 Nos.

4.0 Sq.mm 3 Nos. 8 Nos.

6.0 Sq.mm 2 Nos. 6 Nos.

10 Sq.mm -- 4 Nos.

16 Sq.mm -- 2 Nos.

7. Fish Wire :

18 S.W.G. G.I. wire shall be used and it shall protrude the conduit ends by 9 inches.

8. Conduit laying in floor/roof slabs before casting :

PVC/Polythene/G.I. conduit shall be laid straight as far as practicable and properly placed including binding with the steel reinforcement rods with 22 SWG G.I. wire so that proper positions of conduits are maintained.

While laying the conduits for concealed wiring in the ceiling or in the beams and columns and before casting, the contractor shall ensure that both ends of the conduit are plugged by means of deadened socket or otherwise so that any foreign matter can not enter the conduit and choke them.

All precaution must be taken while laying the conduits on the slabs, R.C. walls, columns etc. and the contractor shall rectify at his own cost if any defects are found during process of drawing cables through the concealed prelaidd conduits.

Each PVC/Polythene conduit shall be provided with protruding length of not less than 9 inches on free end of the conduits.

There shall be no intermediate joints in one straight run of conduit.

All ceiling outlets shall be terminated in a round C.I./G.I. circular box/deep box to suit standard size ceiling rose or/and rectangular C.I./M.S. junction box or fan hook box as the case may be.

It will be mandatory for the contractor to get the layouts approved by the Bank's

Engineer/Architect when the conduits are laid and bound to steel reinforcement rods, before he can release the work for casting of floor/roof.

9. Connector Boxes, Draw-in-Boxes, Junction Boxes :

These shall be manufactured from 16 SWG M.S. sheet and have M.S. cover. Minimum size for connector boxes is 6" X 4" and for Draw-in-Boxes 4" X 4".

10. Fan Hook Boxes :

These shall be 125mm X 125mm X 75mm deep, constructed from 16 SWG M.S. sheet, and provided with one 12mm dia M.S. rod 300mm long.

ELECTRICAL WIRING

1. GENERAL REQUIREMENTS

The installation shall generally be carried out in conforming with the requirements of the Indian Electricity Act, 1910 as amended up to date and the Indian Electricity Rules, 1956 framed thereunder, the relevant regulations of the Electric Supply Authority concerned, and also with the specifications laid down in the Indian Standard I.S. 732 - 1963 Code of Practice (revised) for Electrical Wiring Installations (system voltage not exceeding 650 volts) and I.S. 2309 - 1969 Code of Practice for the protection of Buildings and Allied Structure against Lightning and IS 3043 - Indian code of Practice for Earthing. The wiring shall also be according to the specifications of P.W.D. of the Local Government.

2. MATERIALS

All materials, fittings, appliances, used in electrical installations, shall conform to Indian Standard Specifications wherever these exist. A list of approved materials is attached afterwords. Materials not included in the list shall be got approved by the Architects/Owner prior to actual use.

3. MAIN SWITCH GEAR

Iron clad switch fuse and isolator units should conform to B.S. 861 (I.S. 2510-1954). The quick made and break mechanism shall be self interlocked with the cover. In "Off" position there must be two breaks per pole.

Main switch gear shall be properly earthed with two numbers conductors if M.V. and one number of L.V.

4. BURSAR CHAMBER (B.B.C.)

This shall be totally enclosed, metal clad type fabricated from rust proofed 16 SWG sheet steel on angle iron frame and provided with sheet steel or cast iron cover and undrilled detachable end plates, suitable for mounting on wall or angle iron floor stand and painted with high quality enamel paint. G.I. bolts and nuts shall be used for assembly with suitable packing materials to ensure dust proof finish. Meters shall be provided on suitable sheet steel boxes. Switch shall be provided with cable and boxes as required.

The depth of B.B.C. shall be 150mm (minimum). Minimum clearance of phase bars to earth shall be 25mm and between bus bars shall be minimum 32mm.

H.C. (High conductivity) copper busbars properly tinned are to be rated at 1000 Amps. per Sq. in and Aluminium bus bars (wrought aluminium alloy strip) conforming to relevant I.S. specification at 800 Amps per sq. in.

Neutral Busbars are to be rated to carry 60% of phase current. These shall be carried on glazed porcelain supports of proper dielectric and mechanical strength and shall be appropriately colour coded for identification of Phase.

Ettering shall be done for identification of switches as directed. The contractor shall submit fully

dimensioned drawing of the board with the physical position of the switches and other components to the Architects for their approval before the same is fabricated.

There shall be two numbers of Earth Terminals. Suitable Danger Board shall be provided.

5. INTERCONNECTION B.B.C. & SWITCH FUSE, METERS

For ratings above 150 Amps these shall consist of insulated copper strips to adequate section.

For rating below 150 Amps PVC copper cable tails of appropriate size, terminating in tinned copper sockets may be used. The above are to be enclosed either in sheet metal trunking or conduits so that no part is exposed.

6. DISTRIBUTION BOARDS

These totally enclosed metal clad type Distribution Boards with hinged lids shall be in accordance with I.S. 2147-1952 and 2675-1966 and B.S. 214 and shall be welded construction and fabricated from rust proofed sheet steel and finished with anticorrosive stove enamel paint and have provision for fixing on wall and have earthing terminals.

Power Distribution Boards (400 volts TPN) shall be constructed from 16 SWG sheet steel and Branch Distribution Boards (230 volts SPN from 18 SWG sheet steel).

The minimum ratings of phase and neutral busbars shall be 67% of the total rating of fuse ways.

Above 32 Amps Neutral Busbars may be half the size of the Phase Bus bars.

The fuses shall be mounted on glazed porcelain supports of proper dielectric and mechanical strength. TPN units should have phase separation barriers between fuse banks.

Cables shall be connected to a terminal by crimped lugs.

Where two or more B.D.B's feeding low voltage circuits are fed from different phases of a medium voltage supply, these B.D.B's shall be installed at least two metres apart.

All three phase power distribution boards shall be properly earthed with two number 10 S.W.G. galvanised iron wires and provided with suitable Danger Boards. All SPN B.D.B.'s shall be properly earthed with one number 10 SWG galvanised iron wire each.

7. CABLES AND CONDUCTORS

All cables shall conform to relevant Indian Standard. Conductors of all cables except for flexible cables, shall be of aluminum, unless specified otherwise.

8. TESTING OF INSTALLATION

Before a completed installation or an addition to an existing installation is put into service, the following tests shall be carried out by the contractor in presence of the Engineer in charge.

a) Polarity of Switches

It must be ensured by test that all single pole switches have been fitted on the live side of the circuits they control.

b) Insulation test :

i) By applying a 500 volt megger between earth and the whole system of conductors or any section thereof, with all fuses in place and all switches closed, all lamps in position or both poles of installation otherwise electrically connected together : The result in megohm shall not be less than 50 divided by the number of points on the circuit, and should not be less than 1 megohm.

ii) Between all conductors connected to one phase and all such conductors connected to the neutral or to the other phase conductors of the supply after removing all metallic connections between the two poles of the installation and switching on all switches. The insulation resistance shall be as in (i) above.

c) Earth continuity Test

The earth continuity conductor including metal conduits, and metal sheaths of cables in all cases shall be tested for electrical continuity. Electrical resistance of the above along with the earthing leads cut excluding any resistance of earth leakage circuit breaker, measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

d) Earth Resistance Test

To ensure effectiveness of installation earth, the value of earth resistance shall be within 5 ohm for installation capacity up to 5 KW and one ohm for installation of higher capacity.

9. The completed work will be taken over only if the results obtained in above tests are within the limits mentioned above and in accordance with I.E. Rules.

On completion of the installation work, a certificate shall be furnished by the contractor, countersigned by the certified supervisor under whose direct supervision the installation was carried out. This certificate shall be in a prescribed form as required by the local Electric Supply Authority.

10. SPECIAL SPECIFICATIONS

a) Before fixing all switches, fittings etc. should be produced before Engineer in Charge and get approved.

b) All metal switch boards and switch/regulator boxes to be used in work shall be painted with two coats of anti rust primer (red oxide paint) prior to erection. After erection they shall be again painted with two coats of enamel paint of approved quality.

c) Before execution of any portion of conduit work for wiring neat proper layout should be made out by the contractor and got approved from the Engineer in charge. For this purpose contractor is advised to get acquainted with the layout drawings of the Consultant/Architect.

d) While laying the conduits for concealed wiring in the ceiling or in the beams and columns and before casting the contractor must ensure that all the inlets and both ends of the conduits are plugged by means of dead end socket so that no foreign matter can enter the conduits and choke them.

e) Damage to any fitting during erection and before handing over the installation by contractor shall be set right or replaced by the contractor at his own cost.

f) Caution Board of proper size wherever required, shall be provided, as per I.E.E. regulations for which no extra payment will be admissible.

g) Any repairs done to wall etc. should match with the surrounding surface otherwise same will be got done through Building Contractor at the cost of the Electrical Contractor.

h) Earthing Installation shall be done in the presence of Engineer in charge or his representative.

- i) The installation should not be energized without adequate earthing.
- j) The I.C. switches and Distribution Fuse Boards shall be provided with neat lettering in block letters with paint for identification of the I.C. switches and for the points connected to each fuse way of the D.B's for which no extra payment will be admissible.

k) Completion Drawings

The Contractor shall be required to submit along with Final bill, the under noted controlled by them).drawings on tracing papers, along with three copies of Ammonia print each.

1. Plan (as per structural drawing) of each floor (not less than 1:100 metric scale) showing :

- i) Locations of Main Switch Board, Distribution boards (with the circuit numbers controlled by them).
- ii) The runs of mains and submains.
- iii) Location of lights, fans, wall sockets, other power consuming devices together with type of fittings and fixtures including circuit numbers.
- iv) Position of lightning conductors and route of running conductor.
- v) Position of Earthing Stations for light and power and Lightning Conductor installation.

and giving the following information on the plans :-

- a) Name of work with job no. Accepted Tender No.
- b) Date of completion.
- c) Name of the Place.
- d) Name and Signature of the Contractor.
- e) Scale of Drawings.

2. Schematic lines layout diagram of each floor showing (i) Layout and connections of Main and Sub-board, B.D.B. having descriptions of the size, capacity, type and their numbers, the system and the source of supply, (ii) Location, Size, Type, length of main and sub main cables (iii) Loading of each B.D.B. indication of phases, Departmental mark in each B.D.B. and switchgear.

The drawings shall be very neatly drawn and submitted properly without folding them.

3. Cable route should be marked on site plan with measurements from permanent Structures.

CABLE INSTALLATIONS

1. General

All HV Cables (upto 33 KV earthed system) shall be either paper insulated SL type or XLPE insulated aluminium conductor cable conforming to I.S. 692 and I.S. 7098 respectively.

All Medium Voltage and Low Voltage PVC insulated and armoured/unarmoured cables shall conform to IS 1554 Part-I-1964 and of 1,100 volt grade.

Old and used cables must not be used for installation. Only one make of cable shall be used. All cables brought to site must be tested and got approved by the Engineer-in-charge before these can be laid. The cables shall be dispatched to site on wooden drums with ends sealed. Exact lengths shall be determined by the Contractor after measurement at site.

The underground installation of cables shall be generally conforming to I.S. 1255-1967, Code of practice for installation and maintenance of under ground cables (upto including 33 KV).

2. Laying of Cables

a) Direct in Ground

Trenches shall be 750mm deep (minimum) for LT Cables and 1.2 M (4'-0") deep minimum for HT Cables from ground level and trenching work shall including all pumping and bailing out water. These trenches shall be wide enough to accommodate all the cables with brick separations as per the requirements specified in the relevant I.S.

When more than one multicore cable is to be laid in the same trench, a minimum horizontal interaxial spacing between cables will be as per relevant I.S.

After excavation of the trench of proper size, the bottom of the trench shall be dressed and leveled and filled with a 75mm layer of fine sand. The cable shall then be laid with bricks on both sides of the cable continuously. After having the space within the bricks, filled and packed upto a level of 75mm (3") above top of cable with fine sand, the top layer of bricks shall be placed side by side in continuous series as protective cover. Total No. of bricks required being 16 per metre run. The remainder of the trench shall be filled with riddled soil, well rammed and watered to a level of 75mm (3") above surrounding ground level. The ground level surface of the whole trench route shall be restored properly after completion of cable laying.

b) Inside Building

Cables shall be laid on walls/ceilings/structure, unless specified otherwise, with M.S. brackets and suitable clamps or over claw type aluminium cleats fixed on M.S. brackets, paced not more than 450mm apart. G.I. Bolts of suitable sizes are to be grouted on the wall properly for fixing the brackets.

c) Minimum bending radius permissible is 12D for MV Cables and 20D for HV cables. At joints and terminations, the individuals core of multicore cables should never be bent so that the radius is less than 15 times the diameters over the insulation.

No Cable jointing is allowed between two terminals points.

3. Cable Jointing

All cable joints shall be carried out by experienced and Licensed jointers under strict supervision. Electro plated brass cable glands, aluminium/ tinned copper cable sockets and approved jointing materials must be used. The price for cable jointing and finishing the ends of the cable shall include all materials and shall also provide for tools and plants for the work. The cable accessories and other associated materials shall conform to Indian Standard Specification where applicable. Proper earthing of cable glands and armoured shall be included in the job.

4. Testing of Cables

All cables shall be tested for insulation resistance with megger - 5,000V constant pressure megger insulation tester for HT Cables and 1,000 V constant pressure megger for MV cables, before installation.

After installation and end termination, the cables shall be again subjected to the above test.

Insulation value for HT Cables shall not be less than 100 me ohms and for MV Cables 1.0

megohm.

After laying and jointing, the HV Cables shall be subjected to high voltage pressure test before commissioning the test voltage being as specified in I.S. 1255-1967 or latest.

5. Testing of Installation

Before the completed installation is put into service or handed over to Owner, the installation is to be subjected to the above tests to the satisfaction of the Engineer-in-charge. The completed work will be taken over only if the results are acceptable to the Architects/Owner.

6. Product specifications (AC):

- a. Air Conditioner, which is offered by the tenderer, shall carry a five star rating or shall be of inverter type & only of a reputed Brand.
- b. The product on offer shall carry a minimum warranty period of one year.
- c. The compressor of the air conditioners should carry a minimum warranty of five year.
- d. Product on offer shall carry a free replacement guarantee period of a minimum 30 days in case the supplied product is found to be carrying a manufacturing defect or is a malfunctioning unit.
- e. There should be an authorized service center of the offer product in Krishnanagar, Nadia.

EARTHING INSTALLATION

The installation shall generally conform to IS 3043 - Indian Standard Code of Practice for Earthing, as amended upto date.

1. Earthing Electrode

The earthing electrode shall be galvanized steel pipe of Class B medium quality - 40mm dia bore and 3.04 M (10') long. A hole shall be provided at 100mm (4") from the top end to receive a 13mm (1/2") dia galvanized bolt and the bottom end shall be chisel cut for easy penetration into soil.

A suitable trench shall be excavated about 0.45 M (1'-6") deep and the pipe electrode driven to an average depth of 3.35 M (11'-0") below ground level. The top end of the electrode shall be at an average depth of 0.30 M (1') below the ground surface.

Alternate layers of Charcoal or Salt and Coke to be provided for Electrode as per I.S. Code of Practice unless specified otherwise.

One No. 6 SWG G.I. wire (unless otherwise specified) shall be connected securely on the properly cleaned surface at the top end of pipe electrode by means of a 100 mm (4") long X 13 mm (1/2") dia G.I. bolt nut and double washers. The earth lead conductor shall be protected mechanically by means of a continuous length of G.I. pipe (Class A) having 13mm (1/2") inside diameter upto a height of 0.60 M (2') above ground and the same shall be completely filled with bitumen compound and topped upto overflowing.

2. Masonry Inspection pit

The inspection pit for the earth station shall be approx. 0.56 M X 0.56 M (1'-10" X 1'-10") outside dimensions and approx. 0.45 M (1'-6") deep when completed, having 5" thick cement brick work with 1st class bricks in cement mortar (6:1) both inside and outside plastered 19mm (3/4") thick and neatly cemented 1.60mm (1/16") thick, both inside, outside and top. The opening on top

shall be provided with a C.I. ring with lockable cover fixed flush with ground surface.

All the excavations shall be duly back filled, dressed and rammed.

3. Locations for Earth Electrodes

Electrodes shall be buried at least 2 M (6'-6") away from the building pole or object to be earthed. However, earthing electrodes for L.C. installations should be as close to the down conductors as possible.

Electrodes when installed in parallel, shall not be placed less than 2 M (6'-6") apart and preferably placed at distances greater than twice their lengths.

4. Earth Busbar

a) Galvanized M.S. Flat

The busbar shall be of suitable size and length, as specified in the Schedule of Items, heavily galvanised and having adequate number of drilled and tapped holes 30mm apart, complete with G.I. bolts, nuts, washers for securely connecting the earth leads and earth continuity conductors.

The busbar shall be fixed on wall, having clearance of 6mm from wall with spacing insulators with at least the numbers 13mm (1/2") G.I. rag bolts spaced about 0.46 M (1'-6") apart.

b) Copper Flats

To be used, as specified, in the Schedule of Items, where earthing requirements are more stringent. Brass bolts, nuts washers shall be used for connections.

5. Value of Earth Resistance

In case of installations where the load does not exceed 5 K.W. the resistance to earth shall on no account exceed 5 K.W. the resistance shall not exceed 1 ohm.

For sub-station, the value is 1 ohm.

For L.C. installations, the value is 1 ohm.

L.C. INSTALLATION

Specifications :

The installation shall conform to I.S. : 2309-1969 as amended up to date.

1. Conductor for L.C. System

It shall be well galvanised No. 7/8 SWG G.I. stranded wire galvanising conforming to B.S. 728/1961) unless specified otherwise. The conductor shall be well annealed and flexible. There shall be no joints in any conductor between terminal ends.

2. Air Terminals

Air Terminal shall be single prong type constructed of 15mm N.B. (Class-B) medium quality G.I. pipe 30 cm long with a screwed G.I. solid conical cap 100mm long (overall) on top and shall have a screwed galvanized M.S. flange 75mm dia X 6mm thick at bottom end and shall be grouted on the parapet, roof, etc with rag bolts in cement mortar unless specified otherwise.

3. Conductors on Parapet

The conductors shall be coursed along ridges, parapets, edges of the flat roof, over flat roof where necessary in such a way as to joint each air terminals to the rest. The conductors shall be fixed securely with proper saddles spaced not more than 2 ft. (0.6 M) apart.

4. Vertical Down Conductors

The conductors, direct from test point shall be connected to parapet conductors or air terminals and shall be coursed through shortest possible routes without abrupt turns or kinks. While passing through cornices, these shall pass through G.I. pipe (Class-B) having adequate bore. These conductor shall be fixed securely with proper saddles spaced not more than 2' ft. (0.6 M) apart.

5. Protection Against Damage and corrosion

No upturns are permitted and any bend necessary shall have a permissible radius. The end of G.I. pipe protections on wall shall be properly sealed with bitumen compound to prevent corrosion.

6. Metallic Objects near conductors

The conductors shall be so laid as to maintain a separation distance exceeding 2 Metres (6'-6") between (a) any electric conductor running in parallel, (b) metallic objects, viz. iron girders, water tanks, iron stair case, water/gas pipes inside or by the side of the building.

All the external metallic objects viz. water tanks, gutters, rain water down pipes, water mains, etc. shall be bonded to the nearest conductor by means of a short tail.

7. Joints & Bonds

All joints between conductors shall be made after cleaning and tinning the ends of conductors to be joined, binding them together for about 100mm (4") with No. 14 SWG G.I. wire and then welding.

Joint between Air Terminals and conductors shall be made with proper lugs duly fixed to conductors and bolts, nuts washers etc.

Bonding shall be as short as possible. All joints & Bends are to be mechanically and electrically sound.

8. Earth Stations :

Similar to Installation earths as specified elsewhere. Minimum number of earth station is two.

9. Installation Tests :

After completion of works the ohmic resistance of L.C. installation complete with air terminals (without earth connection) shall be measured from the highest point and this shall be a fraction of one ohm.

The resistance to earth of individual earth stations shall be tested by earth testing megger and must not exceed 1.0 ohms.

The above tests shall be made in the presence of the representative of the Engineer-in-charge/ Architects and the results recorded. A certificate of the same to be submitted duly certified by an licensed electrical engineer.

10. Completion Drawings :

This shall be submitted along with the final bill

SCHEDULE OF QUANTITIES

PREAMBLE

1. The quoted rates shall include clearing site from all shrubs, vegetation, bushes, trees before commencement of work even if not otherwise specified. Trees with a girth of

above 4500mm measured 300mm above G.L. shall be cut with prior approval from the Owner/Consultant.

2. The quoted rates shall be deemed inclusive of costs of all labour, materials, tools, plants, equipment, scaffolding, curing cost, all lead & lifts, all taxes including service tax, duties, octroi even if these are not otherwise mentioned in items.

3. Products with I.S.I. stamping, if available shall be used with prior approval of the Consultant/Employer reserves the right to select any particular brand between different I.S.I. stamped products of the same category.

4. The quoted rates shall include for keeping pockets, holes, chases, etc., in concrete/masonry for running of Conduit etc.

NOTES TO SCHEDULE OF ITEMS

1. Tenderers shall include in their rates quoted charges for preliminary and general items required for the execution of work such as tools and plants, workman's shed, temporary offices, cleaning site, scaffolding upto required height etc. The description of each item shall unless otherwise stated be held to include conveyance, labour, and finishing to required shape and size, setting, fitting and fixing in position, straight cutting and waste, return of packings, overheads, profits and other unless otherwise stated, be held to include the consequent waste.

2. The rates quoted by the Contractor should cover for work at any height for all the items of work under this contract. List of all materials will not form a criterion for any extra payment, unless otherwise stated in the particular item.

In the event of arithmetical error/errors being discovered in the Contractor's tender the rate mentioned in works in the tender copy marked 'Original' will only be taken as bonafide.

3. Contractor should note that the tender is strictly on item rate basis and their attention is drawn to the fact that their rates for each and every item should be correct, workable and self supporting. If called upon by the Architect/Employer detailed analysis of any or all rates shall be bound to recognize Contractor's Analysis.

4. Contractor should note that their rates should be inclusive of all attendance on their subcontractors & also for making good any holes and chases left by the Sub-Contractor before the builder's work is completed.

5. The Contractor shall be responsible for procuring all required materials sufficiently in advance and see that the work is never hindered for want of materials or due to any other reason or restriction.

6. The Contractor shall have to carry out all connected work within the boundary of proposed work and inside the building if ordered to do so by the Architect/Employer at the rates quoted in the Schedule of Items.

7. The Contractor is to study architectural and electrical drawings before commencing any

work. In case of discrepancy the Contractor must report to the Architect/Employer immediately and shall get the same rectified before proceeding on.

8. The rate quoted for installation work shall include the necessary requirements of Indian Electricity Act and Rules in force at the time of carrying out work.

9. All materials which shall be used in the work must be from the list of the approved materials as mentioned in the specifications. Samples of materials proposed to be used shall be submitted for approval and nothing shall be used which are not approved.

10. General spirit of the technical specification and method of measurement shall be as laid down in the latest edition of I.S.Code of Practice. Rates quoted for all items shall include for the cost of supplying labour and materials fixing and/or erection complete with all the appliances necessary for the proper execution and carrying out of the work to the truest sense of drawing and specification though this may not be mentioned in particular item of in the Schedule of Items.

ARTICLES OF AGREEMENT

(ON NON-JUDICIAL STAMP PAPER OF Rs.100.00)

ARTICLES OF AGREEMENT made this day of2018 between the UCO Bank , a body corporate constituted and having its Head office under the Banking companies (Acquisition and Transfer of Undertaking) Act 1970 and having its Head Office 10 B.T.M Sarani, Kolkata -700 001 (hereinafter called "the EMPLOYER") which expression should include its successor/s and assignee/of the one part and M/s..... having its office at (hereinafter called the "CONTRACTOR") of the other part, which expression should include its successor/s and assignee/s.

WHEREAS the Employer is desirous of executing **Electrical & AC work of KULTI branch at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal** and has caused drawings and specifications describing the work to be prepared by Sudip Sur & Associates, 14/2, Kali Kumar Mukherjee Lane, Shibpur, Howrah - 711102 (hereinafter called the "CONSULTANT").

AND WHEREAS the said DRAWINGS numbered as mentioned in the tender document hereinafter mentioned and to be issued from time to time, the specifications and the schedule of Items and quantities have been signed by and on behalf of the parties hereto.

AND WHEREAS the contractor has agreed to execute upon and subject to the conditions set forth herein and schedule of items and quantities, General conditions of contract, special conditions of contract including all other conditions as mentioned in the tender document, specifications and all correspondence exchanged by or between the parties from the submission of tender till the award of work, both letters inclusive, (all of which are collectively hereinafter referred to as "the said conditions") The work shown upon the said drawing and/or, described in the said specification and included in the schedule of items and quantities at the respective rates therein set forth amounting to the sum of Rs.....(Rupees..... only) as therein arrived at or such other sum as shall become payable there under (hereinafter referred to as "THE SAID CONTRACT AMOUNT").

NOW IT IS HEREBY AGREED AS FOLLOW:

1. In condition of the said contract amount to be paid at the times and in the manner set forth in the said conditions, the contractor shall upon and subject to the said conditions execute and complete the work shown upon the said drawings and described in the said specification and the schedule of items and quantities.
2. The Employer shall pay the Contractor the said Contract amount, or such other sum as shall become payable, at the times and in the manner specified in the said conditions.
3. The consultant in the said conditions shall mean the said **Sudip Sur & Associates**, 14/2, Kali Kumar Mukherjee Lane, Shibpur, Howrah - 711102, or in the event of their ceasing to be the consultant for the person or purpose of this contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Employer, provided always that no person subsequently appointed to be consultant under this contract shall be entitled to disregard or overrule any previous decision or approval or direction given or expressed in writing by the consultant for the time being.
4. The said condition and Appendices thereto shall be read and considered as forming part of this Agreement, and the parties hereto shall respectively abide by, submit themselves to the said conditions and perform the agreement on their part respectively in the said conditions contained.
5. The plans, agreement documents mentioned herein shall form the basis of this contract.
6. This contract is neither a fixed lump sum contract, nor a piece work contract but is a contract to carry out the work in respect for **Electrical & AC work of KULTI Branch & ATM at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal** as per the scope described and to be paid for according to actual measured

quantities at the rates contained in the schedule of rates and probable quantities or as provide in the said conditions.

7. The Employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.

8. Time shall be considered as the essence of this contract and the contractor hereby agrees to commence the work on the day of handing over of the site or within fourteen days from the date of issue of formal work order whichever is later as provided for in the said conditions and to complete the entire work within 8 (EIGHT) weeks subject nevertheless to the provisions for extension of time.

9. All payments by the Employer under this contract will be made at Kolkata.

10. Any dispute arising under this Agreement shall be referred to arbitration in accordance with the stipulations laid down in the general conditions of contract.

11. That the several parts of this contract have been read by the contractor and fully understood by the contractor.

In witness whereof the Employer and the contractor have set their respective hands to these present through their duly authorized official and the said two duplicate hereof to be executed on its behalf of the day and year first herein above written.

Signed on behalf of the UCO Bank
By duly authorized representative

Signed of official stamp of contractor
or its authorized representative

In the presence of:

1. Signature _____
Name _____
Address _____

2. Signature _____
Name _____
Address _____

In the presence of:

1. Signature _____
Name _____
Address _____

2. Signature _____
Name _____
Address _____

FORM OF TENDER

The Zonal Manager
UCO Bank
Zonal Office Durgapur
General Administration Department
1st floor, Durgapur Steel City Branch
Einstein Avenue, 'B' Zone
Durgapur – 713 205

Dear Sir,

Re : **Electrical & AC work of KULTI branch & ATM at D. B. Bhaban, Ranitala, PO-Kulti, Pin- 713314, Asansol, West Bengal**

1. I/We refer to the tender notice issued by UCO Bank, Zonal Office, General Administration Department, Durgapur in connection with the above work.
2. I/We do hereby offer to perform, provide, execute, complete and maintain the works in conformity with the drawings condition of contract, specifications, bill of quantities for the sum of Rs. at the respective rates quoted in the bill of quantities.
3. I/we have satisfied myself / ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions, subject to above, I/we do hereby agree, should this tender be accepted in whole or in part, to:
 - a) Abide by and fulfill all the terms and provisions of the said conditions annexed hereto;
 - b) Complete the works within 2(Two) Weeks, as per the work programme enclosed with the tender in two or three shifts if considered necessary by the Owner /Architects at no extra cost to the owner.
4. I / we have deposited the earnest money of Rs. **8,000.00, (Rupees eight thousand only)** in the form of Demand Draft / Pay Order payable at Kolkata in Favour of "UCO Bank" which, I/we note , will not bear any interest and is liable for forfeiture solely at Bank's Discretion if:
 - i) our offer is withdrawn within the validity period of acceptance.
Or
 - ii) The Contract is not executed within 3 days from the date of receipt of the letter of acceptance.
Or
 - iii) The work is not commenced within 7 days after issue of work order.
 - iv) If the initial Security Deposit (ISD) is not deposited within 3 days from the date of receipt of work order.
5. I/we understand that you are not bound to accept the lowest or any tender you receive.
6. Name of the partners /Directors of our firm :
 - i)
 - ii)
 - iii)
 - iv)
- 7) Our bankers and their addresses are:
 - (i)

(ii)

Yours faith fully

Signature

Name of partner/ Director of the firm authorized to sign

Name:

Or

Name of person having power of Attorney to sign the
Contract (Certified true copy of power of attorney attached)

Designation:

Signature and address of
Witnesses

a) Signature _____

Name _____

Address _____

b) Signature _____

Name _____

Address _____

UCO BANK # DURGAPUR ZONAL OFFICE # KULTI BRANCH & ATM					
B O Q FOR ELECTRICAL WORKS					
SI No.	Description Of Item	Qty.	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		
2	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 - 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 : 63/40 Amps TPN MCB - 3 Nos., 40 Amps DP MCB - 4 Nos., 40 Amp TPN Changeover-1 No., 100 Amp TPN Bus bar Chamber-1 No.	1	unit		
3	DISTRIBUTION BOARDS (All MCBs to be "C" series)				
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	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.	2	unit		
c	Providing and fixing 4 way TPN double door AC DB for A.C. POINTS with incomer 1 no. 63 Amps 4P MCB controlling 12 no. 10/16 Amp SPMCB, keeping other space as spare Complete.	1	unit		
d	Providing and fixing 4 way TPN double door POWER DB for RAW POWER POINTS with incomer 1 no. 40 Amps 4P MCB controlling 12 no. 16/10 Amp SPMCB Complete.	2	unit		
e	Providing and fixing 63 Amps TPN Isolator with Cut Out DB (For Master Switch controlling light, AC, power point etc. excluding UPS distribution) near Branch entrance location.	1	unit		
4	UPS INPUT/ OUTPUT				
	63 Amps/40 Amps DP MCB in MS enclosure box	2	unit		
5	CABLES				
a	Providing and placing in position, testing and connecting 1.1 KV grade XLPE Al armoured cable 3.5-C x 35 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.	30.00	r. m.		
b	Providing and placing in position, testing and connecting 1.1 KV grade Cu cable 4-C x 16 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.	30.00	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 and UPS Output to UPS DB</u> . Including all necessary terminals etc. complete.	30.00	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.	30.00	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.	60.00	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</u> . Including all necessary terminals etc. complete.	200.00	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.	135.00	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>AC DB To Starters/Outdoor Units & DB To Glow Sign Board</u> . Including all necessary terminals etc. complete.	130.00	r. m.		
6	CABLE TERMINATION				
	Supplying, connecting the end terminations with copper cable lugs, Single Compression Brass Cable Glands, Tapping, Crimping etc. complete.				
a	3.5 core 35 Sq mm Al. Armoured	2.00	unit		
b	4 core 16 Sq mm Al. Armoured	2.00	unit		
7	EARTHING				
a	Earthing installations as per I.E. rules by making earth stations with 600 mm x 600 mm x 3.15 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) 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 Earth Bus Bar of 25 mm. x 6 mm. x 300 mm. complete with brass nut, bolt, washer & bus insulator.	1.00	unit		
d	Providing and fixing Copper Earth Wire 8 guage in pvc conduit in Floor / walls From pipe earthing to Main Panel Board Complete.	40.00	r. m.		
8	POINT WIRING				
	Providing & fixing POINT WIRING for Ceiling and wall lights / fan. The item includes Circuit wiring from DB to the switch board with 2 x 2.5 sq. mm. PVC insulated copper conductor with 1.0 sq. mm. PVC insulated copper conductor for earthing in appropriate size of PVC conduits ISI mark, point wiring to be laid with 2 x 1.5 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 6 Amp switch with all base plates & cover plates, M.S. box of same make etc. 3 plate ceiling rose to be provided for Exhaust fans complete. Each switch board should have at least 1 no. 5 Amp raw power socket. There will be at least 8 light points to be connected through UPS supply within banking hall area.				
a	Providing and fixing point wiring with same pecifications as MAIN point wiring above : <u>one point to be controlled by one switch.</u>	27.00	unit		

b	Providing and fixing point wiring with same specifications as MAIN point wiring above : <u>two points to be controlled by one switch.</u>	18.00	unit		
c	Providing and fixing power point for WALL / EXHAUST FAN points with 1 x 5pin 6Amp socket outlet to be provided at the location of fan	12.00	unit		
d	Providing & fixing Raw Power Point Includes 2 nos. 5 pin 6 AMP socket and 1 no 6 Amp switch etc. complete.	10.00	unit		
e	Providing & fixing Raw Power Point Includes 1 nos. 5 pin 15 AMP socket and 1 no 15 Amp switch etc. complete.	2.00	unit		
f	Providing & fixing Computer Plug Points with 4 Nos 5 pin 6 Amp sockets, 1 Nos 16 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.	12.00	unit		
g	Providing and fixing BELL POINTS on wall / partition with 2x1.0 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 Starter for AC consisting of : 15 Amp. Socket for plug, 12-18 Amp. Starter	7.00	unit		
i	Providing and fixing Glow Sign Board point including supply of timer, thro. separate 20 Amp. DP MCB with metal enclosure complete.	2.00	unit		
j	Providing and fixing AC timer, thro. separate 20 Amp. DP MCB with metal enclosure complete.	1.00	unit		
9	ELECTRICAL FIXTURES				
	Item includes Providing, assembling, fixing, testing & commissioning Following Fixtures including all accessories, lamps & extension chords as maybe necessary complete. All LED / Fluorescent 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 of HAVELLS or similar with necessary LED lamp. (VENUS NEO Product code : LHEWDRP7PL1W034 with 34w LED 6000K or similar)	16.00	unit		
b	Providing and Fixing Recessed mounted LED spot light of HAVELLS with necessary LED lamp (15W LED 6000K) or similar. (Ceiling cutout ø 155 mm.)	36.00	unit		
c	Providing and Fixing Surface mounted luminaire suitable for HAVELLS or similar : PHOTON PLUS LED TUBELIGHT : product code : LHLDCLEXENL8X018 or similar with Lamp type 18W LED	11.00	unit		
d	Providing and Fixing Surface mounted LED Bulb Holder of HAVELLS with necessary LED lamp (12W LED 6000K) or similar.	2.00	unit		
e	Providing and Fixing wall mounted fans 400 mm. sweep	12.00	unit		
f	Supplying & Fixing of exhaust fan heavy duty industrial type Crompton 225 mm sweep with 1400 RPM.	2.00	unit		
10	TELEPHONE CABLING				
a	S/I/T/Commissioning of 2 pair 0.51 sq. mm. telephone unarmoured cable in 32mm PVC pipe. (Make - Finolex / Delton / Polycab)	80.00	r. m.		
b	S/I/T/Commissioning of Telephone point with 1 No. of of RJ-11 socket, 1 Module Plate & Modular Box as per instructions of the Architect/Consultant.	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		
11	DATA CABLING				
a	providing and fixing IOU (information outlet unit) of AT & T make including square face plate MS housing box with RJ-45 socket etc complete	12.00	unit		
b	Providing and fixing data points with CAT-6 UTP cable from system room to individual points in 20mm PVC conduit fixed on wall, ceiling, partition etc. complete	300.00	r. m.		
c	Providing and fixing Mounting (PATCH) cords one per port.				
i	1.0 m. long	12.00	unit		

12	Making temporary connections for lighting, raw power, ups power, lan etc. for smooth and continuous banking functioning during renovation / suffling of tables etc. [whole work to be considered as one job]	1.00	unit		
	SUB TOTAL				

APPROVED MAKE OF MATERIALS

1	Switch fuse units (HRC)	LEGRAND / SEIMENS / 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	FINOLEX / 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 / SEIMENS / HAVELLS
13	Moulded case circuit breaker	LEGRAND / SEIMENS / HAVELLS
14	RCCB / ELCB	LEGRAND / SEIMENS / HAVELLS
15	Switch fuse with rewirable fuses. (6A & 32A TPN)	LEGRAND / SEIMENS / HAVELLS
16	Isolator	LEGRAND / SEIMENS / HAVELLS
17	Changeover switch (on load type)	LEGRAND / SEIMENS / HAVELLS
18	MCB distribution board	LEGRAND / SEIMENS / HAVELLS
19	6/16 Amp modular type switch / flushed type plug socket	Gold Medal / CRABTREE
20	6/16 Amp modular switch / socket, module plate & mounting M.S. / PVC box.	Gold Medal / CRABTREE
21	16/25 Amp., 2 module electronic regulator	Gold Medal / CRABTREE
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 / ORIENT / HAVELL'S
30	Exhaust fan	CROMPTON / ORIENT / 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

UCO BANK # DURGAPUR ZONAL OFFICE # KULTI BRANCH & ATM

B O Q FOR AIR CONDITIONING WORKS

SI No.	Description Of Item	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
	Supply, Installation, Testing, Commissioning of Air- conditioning Systems (5 star-inverter) as follows (including 1 yr on site warranty)				
1	Hi- wall Split air- conditioning System, of required Tonnage, Complete with Outdoor Units, Indoor Units, Remote control unit, Mounting Racks, MS Cage with lockable door, Wiring etc. all complete. Make : Blue star / Carrier / Voltas				
a	Tonnage : 1.0 TR	3	unit		
2	Ceiling mounted Cassette Split air- conditioning System, of required Tonnage, Complete with Outdoor Units, Indoor Units, Remote control unit, Mounting Racks, MS Cage with lockable door, Wiring etc. all complete. Make : Blue star / Carrier / Voltas				
a	Tonnage : 1.5 TR	4	unit		
2	Supply and installation Cu Refrigerant piping with insulation	100	r. ft.		
3	Supply and installation soft drain pipe for Hi Wall units	90	r. ft.		
4	Supply and installtion of bracket for outdoor units	7	unit		
5	Civil Work For cutting, Chisling, Plastering of walls to conceal copper pipe, Drain pipe & Electrical wire with plaster finish.	7	unit		
	SUB TOTAL				

UCO BANK # KULTI BRANCH & ATM # DURGAPUR ZONAL OFFICE

SUMMARY FOR ELECTRICAL & AC WORKS

SUMMARY OF QUOTED AMOUNT

1 ELECTRICAL WORK = Rs.

2 AC WORK Rs.

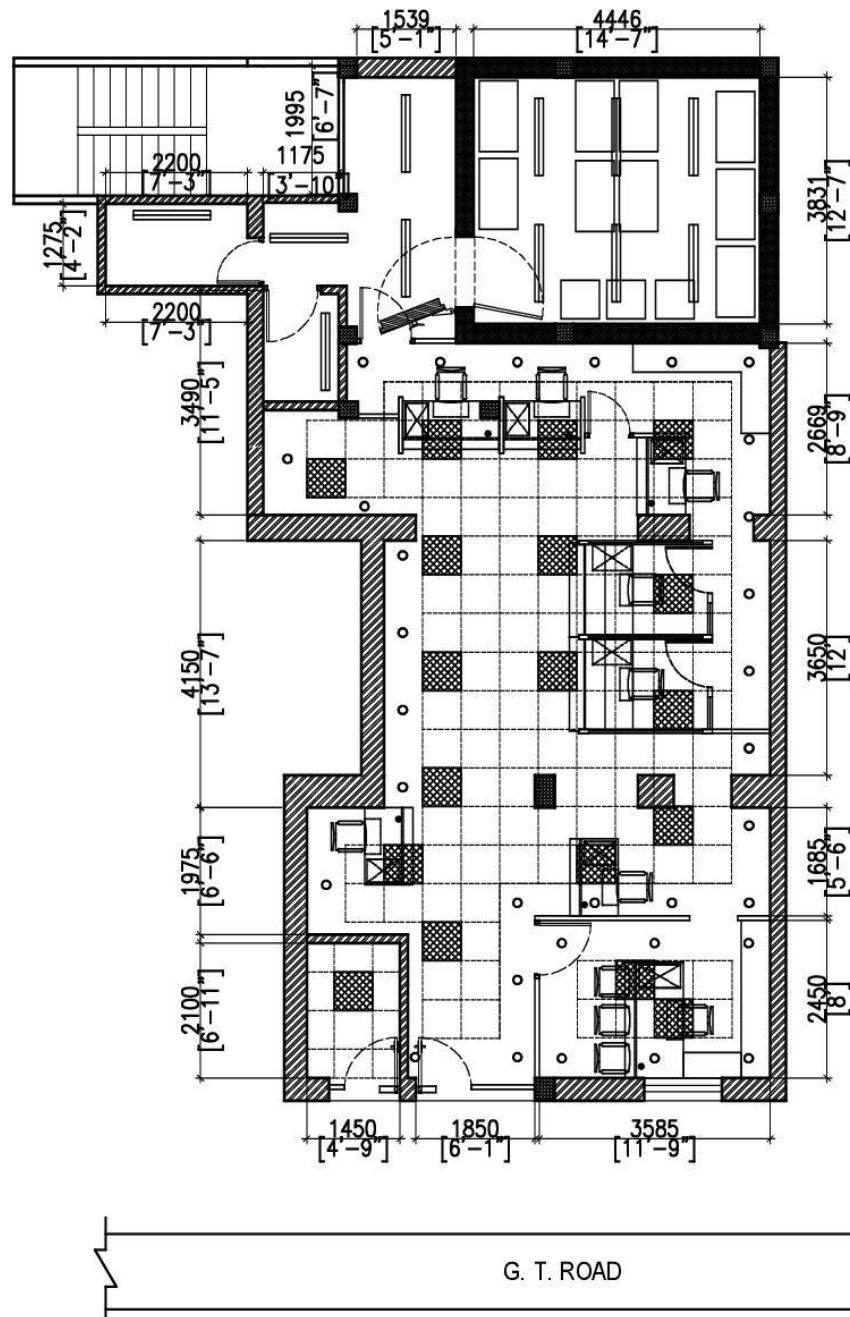
TOTAL = **Rs.**

Less :
Discount (if
any)

=

Add : GST
@ 18% Rs.

GRAND TOTAL = **Rs.**



GROUND FLOOR

TOTAL CARPET AREA = 101.245 SQM. = 1090 SFT. (excluding toilet & column)

PLAN FOR PROPOSED KULTI BRANCH # UCO BANK, DURGAPUR ZONAL OFFICE

SCHEME - 03

DATE
14-10-2024



ARCHITECT :
SUDIP SUR & ASSOCIATES
Architects, Engineers, Interior Designer
14/2, Kali Kumar Mukherjee Lane, Howrah - 711 102
Tel. : 2642 6174, 98300 17895,
E-Mail : sudip.arch@gmail.com