



Regional Director, Reserve Bank of India, Bengaluru invites Manual Tender for **Electrical Installation work in connection with Renovation of five class III flats in RBI Staff Quarters, RPC Layout, Bengaluru**. The Tender forms along with the detailed tender notice is available at the website of the RBI at <https://www.rbi.org.in> under the menu "Tenders".

2. All empanelled bidders may arrange to collect the tender forms available in the Estate Department, 2nd floor, Reserve Bank of India, Bengaluru between 11.00 am and 5.00 pm on all working days from August 1, 2022 to August 22, 2022.

3. The estimated cost of the work is ₹4.16 lakh (approx), however the actual amount may vary.

4. The schedule for the e-Tendering process is as under:

A	Tender Letter No.	BG.ED.No.S-171/06.01.331/2022-23 dated August 1, 2022
B	Mode of Tender	Manual Tender
C	Date of NIT available to parties to download	11.00 am of August 1, 2022
D	Earnest Money Deposit	Not Applicable
E	Start Bid Date	11.00 am on August 1, 2022
F	Last Date for submission of the tender	2.00 pm on September 2, 2022
G	Date of opening of Part I (Technical Bid) of tender	3.30 pm on September 2, 2022

5. The Part-II i.e. price bid will be opened on the same day or at a later date as intimated by the Bank in respect of only those contractors/bidders who satisfies all criteria stipulated in Part-I. The Bank reserves the right to accept or reject any or all Tenders without assigning any reasons thereof.

Note: All the tenderers may please note that any amendments / corrigendum to the Tender, if issued in future, will only be notified on the RBI Website as given above and will not be published in the newspaper.

Regional Director
Bengaluru

August 2, 2022



**Reserve Bank of India
Estate Department
Bengaluru**

Tender For

**Electrical Installation Work in connection with Renovation of Five Class III Flats in
Reserve Bank of India Staff Quarters at RPC Layout, Bengaluru**

Name of Tenderer: _____

Address: _____

Due date and time for Submission of tender: September 02, 2022 at 02.00 PM

Date of opening of tender : September 02, 2022 at 03.30 PM

Venue : Reserve Bank of India
Estate Department, Nrupathunga Road
Bengaluru

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SCHEDULE OF TENDER (SOT

A	Tender No.	
B	Mode of Tender	Manual Tender (Techno-Commercial Bid and Price Bid) Filled in forms should be submitted
C	Date of Inviting Tenders	August 01, 2022 at 11.00 AM
D	Last date of Issue of Tenders	August 22, 2022 upto 04.00 PM
E	Last Date of Submission of Tender	September 02, 2022 at 02.00 PM
F	Date of Opening of Tender (Part-I)	September 02, 2022 at 03.30 PM

Section – I
Commercial Terms and Conditions
FORM OF TENDER

Place.....

Date.....

To

Regional Director,
Reserve Bank of India,
Estate Department
Bengaluru - 1,

Sir,

Having examined the specifications, drawings, designs and schedule of quantities relating to the works specified in memorandum hereinafter set out and having visited and examined the site of the works specified in the said memorandum having acquired the requisite information relating thereto as affecting the tender, we hereby offer to supply and execute the works specified in the said memorandum, within the time specified in the time memorandum, at the rates mentioned in the attached schedule of quantities and in all respects with the specifications, designs, drawings and instructions in writing referred to in conditions of tender, the Articles of 'Agreement, Special Conditions, Schedule of Quantities and conditions of Contract and with such materials as are provided for by us, and in all other respects in accordance with such conditions so far as they may be applicable.

MEMORANDUM

(a)	Description of works	Electrical Installation Work in connection with Renovation of Five Class III Flats in Reserve Bank of India Staff Quarters at RPC Layout, Bengaluru
(b)	Estimated cost	₹ 4.16 Lakhs
(c)	Earnest Money	Not applicable
(d)	Percentage to be deducted from bills	5%
(e)	Time allowed for completion of the work from tenth day after the date of written order to commence work	26 weeks

2. Should this tender be accepted, we hereby agree to abide by and fulfil the terms and provisions of the said Condition of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to the Reserve Bank of India the amount mentioned in the said conditions.
3. Should this Tender be accepted, I/we hereby agree to abide by and fulfil all the Terms and Conditions of the Tender and in default thereof, to forfeit and pay to you or your successors, or assignees or nominees such sums of money as are stipulated in the conditions contained in the tender together with the written acceptance of the Contract.
4. I/We understand that you reserve the right to accept or reject any or all the tender either in full or in part without assigning any reason therefor.
5. The Tender is submitted in two parts in separate sealed envelopes. Part I contains all commercial terms and conditions and technical particulars and Part II contains only the price bid in the Bank's proforma.

Dated this _____ day of _____ 2022.

For and on behalf of M/s _____

(Signature with seal)

Name _____

Designation _____

Place _____

Date _____

(Certified true copy of the Power of Attorney of the above signatory should be enclosed).

Witnesses

(1) Signature with _____

name, address and date _____

(2) Signature with _____

name, address and date _____

Section II

Draft Articles of Agreement

ARTICLES OF AGREEMENT made the _____ day of _____ between the Reserve Bank of India, (hereafter called "The Bank") of the one part and _____
_____ (thereinafter called "the Contractor") of the other part.

WHEREAS The Bank is desirous of getting the work for providing **of Electrical Installation Work in connection with Renovation of Five Class III Flats in Reserve Bank of India Staff Quarters at RPC Layout, Bengaluru** and has caused specifications describing the works to be done.

AND WHEREAS the said specifications, the Schedule of Quantities and drawings have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon the subject to the Conditions set forth herein and to the Conditions set forth in the Special Conditions and in the Schedule of Quantities and Conditions of Contract (all of which are collectively hereinafter referred to as "the said Conditions") the works shown upon the said drawings and/or described in the said specification and included in the Schedule of Quantities at the respective rates therein set forth amounting to the sum as therein arrived at or such other sum as shall become payable thereunder(hereinafter referred to as 'the said Contract Amount')

NOW IT IS HEREBY AGREED AS FOLLOWS:

NOW IT IS HEREBY AGREED AS FOLLOWS -

In consideration 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 specifications and the schedule of quantities.

2.1 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.

2.2 The term "Architect" in the said conditions shall mean CGM, Premises Department, Central Office, Reserve Bank of India, Mumbai and on his ceasing to be the architect for the purpose of this Contract for whatever reason, such other person or persons as shall be nominated for that purposes by the Employer, not being a person to whom the Contractor shall object for reasons considered to be sufficient by the Employer PROVIDED ALWAYS that no person or perhaps persons subsequently appointed to be architect under this Contract shall be entitled to disregard or overrule any previous decisions or approval or direction given or expressed in writing by the architect for the time being.

2.3 The said Conditions shall be read and construed as forming part of this agreement and the parties hereto shall respectively abide by, submit themselves to the said conditions and perform the agreements on their part respectively in the said conditions contained.

2.4 Tender Part-I and Part-II duly filled by the contractor shall form the part of this agreement

2.5 The drawings, agreement and documents mentioned herein shall form the basis of this Contract.

2.6 This Contract is deemed to be Item rate Contract for all items of work as described in detail in the bill of quantities and specifications in part I and Part II of the tender documents.

Work order No. _____ dated _____ shall form the part of this agreement

2.7 The Contractor shall afford every reasonable facility for carrying out of all works relating to civil works, electrical installations, fittings and other ancillary works in the manner laid down in the said conditions, and shall make good any damages done to walls, floors, etc, after the completion of such works.

2.8 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 at any time during the currency of Contract, without prejudice to this Contract.

2.9 Time shall be considered as the essence of this Contract and the Contractor hereby agrees to commence the work from the day of issue of works order/letter of acceptance as provided for in the said conditions and to complete the entire work within **26 weeks** subject nevertheless to the provisions for the extension of time.

2.10 All payments by the Employer under this Contract will be made only at Reserve Bank of India, Bengaluru.

2.11 All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in _____ and only courts in shall have jurisdiction to determine the same.

2.12 That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

2.13 Non-disclosure clause: The contractor shall not disclose directly or indirectly any information, materials and of the Bank's infrastructure/ system/equipment's etc. which may come to the profession or knowledge of the contractor during the course of discharging its contractual obligations in connection with the agreement, to any third party and shall at all times hold the same in strictest confidence. The contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The contractor shall not publish, permit to be publish, or disclose ant particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the contractor and the Employer shall be entitled to claim damages and pursue legal remedies. The contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied. The contractor's obligations with respect to

non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

2.14 Sexual harassment Clause: Any complaint of sexual harassment from any aggrieved employee of the contractor against any employee of the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank

2.15 Force Majeure: If either party is unable to perform its obligations under this Agreement due to the occurrence of an event beyond its control (such as acts of God, war like situations, riots, labor strike, government actions, earthquakes, cyclones, typhoons, and other natural calamities, etc.), that party will not be deemed to have defaulted under this Agreement. Each party agrees to use all reasonable efforts to enable performance under this Agreement to continue. If the period of non-performance due to a force majeure event exceeds 30 days, the party whose ability to perform has not been so affected may, by giving written notice, terminate this Agreement.

If the Contractor is a partnership or an individual	IN WITNESS WHEREOF the Employer and the Contractor have set their respective hands to these presents and two duplicates hereof the day and year first herein above written.
If the Contractor is a company	IN WITNESS WHEREOF the Employer has set its hands to these presents through its duly authorized official and the Contractor has caused its common seal to be affixed hereunto and the said two duplicates hereof to be executed on its behalf, the day and year first hereinabove written.

SIGNED AND DELIVERED by Reserve Bank of India, _____

(Name and Designation)

In the presence of - Witnesses -

1. _____

Address _____

2. _____

Address _____

If the party is a Partnership firm or individual

SIGNED AND DELIVERED BY _____

In the presence of -

Witness -

1. _____

Address _____

2. _____
Address

THE COMMON SEAL OF

was hereunto affixed pursuant to the resolutions passed by its Board
of Directors at the meeting held on

In the presence of - Witness –

1. _____

2. _____

If the Contractor

Directors who have signed these signs under common
presents in token thereof in the seal, the signature presence of

-
clause should tally
with the sealing
the articles
of association.

1. _____ clause in

2. _____

If the Contract is
Contractor by the hand of
of power of attorney,
whether a company or
individual.

SIGNED AND DELIVERED BY - signed by the hand the
Shri _____
_____ an
and duly constituted attorney.

Note: Bank reserves the right to modify the contents of the Articles of the Agreement before
the agreement is entered with the contractor

Section III

General Instructions to Tenderers and Special Conditions

Reserve Bank of India

Bengaluru

3.1 Part I - Commercial Conditions

1. E-tenders are invited from the Reserve Bank of India enlisted electrical contractor for the work, providing of Electrical Installation Work in connection with Renovation of Five Class III Flats in Reserve Bank of India Staff Quarters at RPC Layout, Bengaluru.
2. The Reserve Bank of India reserves the right to accept or reject any or all the tenders, in full or in part, without assigning any reason, therefore. The Bank also reserves the right to accept the tender of any firm. Tenderers are requested to quote unit rates and amounts separately. They are also requested to use the enclosed proforma only (and not to use their own format).
3. The tenders shall be valid for a period of 90 days from the date of **opening of the tender**.
4. The rates quoted shall be inclusive of all taxes, duties, transport, packing, forwarding, insurance etc. and shall be for the complete work duly installed and commissioned at site. The prices quoted shall remain firm for the entire period of contract and shall not be subjected to any variations in the foreign exchange or variations of any other taxes, levies, duties etc. No import license will be furnished by the Bank. The tenderers shall make their own arrangement for import of any part or components, if any, required for completion of the work.
5. The entire work of supply, installation, testing and commissioning of the system shall be completed within a period of 16 weeks from the 10th day of date of issue of work order.

3.2 Defect Liability period: The entire work shall be guaranteed against all types of defects for a period of 1 year from the date of virtual completion. Any defects in the work/materials/sub-assemblies, found within the guarantee period, shall be rectified/ replaced by the tenderer without any additional cost to the Bank.

3.3. TERMS OF PAYMENT:

The following terms of payment, subject to statutory deductions, will apply to the contract:

- (a) 80% of the quoted rate, on pro rata basis, against completion of the wiring pending testing and commissioning.
- (b) 20% of the balance against testing, commissioning and handing over of the system to the Bank.

1. The payment for the system will be made by the office at which the system is supplied and installed. The dispute arising out of this contract will also be sorted out within the jurisdiction of courts situated in the same state where the said the system has been installed.

3.4 The contractors shall submit all technical details of the system along with the tender. The tenderers are requested to use the enclosed proforma only for this purpose (and do not use their own formats and data sheets). However, if they wish to submit any additional information/details, they may furnish the same on a separate sheet with Part I of the tender.

3.5 The tenderers are requested to fill in the enclosed proforma on terms and conditions of the contract. They are advised to confirm whether they agree to the Bank terms and conditions by indicating "YES" or "NO" only. If "NO" then only they shall list out the deviations proposed by them in the appropriate column.

3.6 All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the works (whether during the progress of the works or after their completion and whether before or after the determination abandonment or breach of the contract) shall be referred to and settled by the Bank who shall state its decision in writing. Such decision may be in the form of a final certificate or otherwise. The decision of the Bank with respect to any of the excepted matters shall be final and without appeal as stated in hereof. But if either the Contractor be dissatisfied on any matter on which a decision is taken by the Bank as above, except any of the expected matter the Contractor may within 28 days after receiving notice of such decision give a written notice to the other party requiring that the matters in dispute be arbitrated upon. Such written notice shall specify the matters, which are in dispute or difference of which such written notice has been given. If both the parties agree, a single arbitrator would be appointed for the purpose. In case no agreement could be reached on the appointment of single arbitrator, both the parties will nominate one person each as an arbitrator on their behalf. The two arbitrators nominated by the parties shall nominate one more person to act as third arbitrator.

3.7 The arbitrator or Arbitrators, as the case may be, shall have power to open up, review and revise any certificate, opinion, decision, requisition or notice, save in regard to the excepted matters, referred to in the preceding clause, and to determine all matters to dispute which shall be submitted to arbitration and of which notice shall have been given as aforesaid.

3.8 The arbitrator or Arbitrators, as the case may be, shall make his or their award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case during the arbitration proceedings the parties mutually settle or compromise their dispute or difference, on the parties filing their joint memorandum of the settlement or compromise, the Arbitrator or the Arbitrators as the case may be, shall make an award in terms of such settlement or compromise.

3.9 Upon any such reference, the decision on the cost incidental to the reference and Award respectively shall be in the discretion of the arbitrator or Arbitrators as the case may be, who may determine the amount thereof or direct the same to be taxed as between the party and party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

3.10 This submission shall be deemed to be a submission to arbitration within the meaning of the Indian Arbitration and Conciliation Act, 1996 or any statutory modification thereof.

3.11 The award of the arbitrator or Arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence and shall until the decision of the Arbitrator or Arbitrators, as the case may be, is given, abide by the decision of the Bank. No award of the Arbitrator or Arbitrators, as the case may be, shall relieve the Contractor of his obligations to adhere strictly to the Bank's instructions with regard to the actual carrying out of the works. The Employer and the Contractor hereby also agree that arbitration under this Clause shall be a condition precedent to any right of action under the Contract.

Signature of the contractor _____

Name of the firm _____

Seal of the firm _____

Section IV
Safety Code
GENERAL SAFETY

1. First-aid appliances, including adequate supply of sterilized dressings and cotton wool, shall be maintained in a readily accessible place.
2. The injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalisation.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from ground.
4. No portable single ladder shall be over 8 meters in length, the width between the side rails not less than 30 cm (clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used, an extra labour shall be engaged for holding the ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of the trench, whichever is more. All trenches and excavations shall be provided with necessary protection of minimum height of one meter.
6. Every opening in the floor of a Building or 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 one metre.
7. No floor, roof or other part of the structure shall be so over-loaded with debris or materials as to render it unsafe.
8. Workers employed on mixing and handling material such as asphalt, cement, mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand- gloves.
9. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
10. No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
11. Suitable face masks should be supplied for use by the workers when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
12. Hoisting machines and tackles used in the work, including their attachments, anchorage and supports shall be in perfect condition.
13. The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

FIRE SAFETY

1. Cutting / drilling machine and other electrically operated equipment used at site shall be plugged into correctly rated electrical outlets.
2. Only ISI marked 3 pin plug and other appliances and equipment shall be used.
3. Electrical power cables/wires used shall not have any joints and shall be properly rated.
4. All electrical appliances i.e. welding, drilling, cutting machine etc. shall be safely and securely earthed to prevent leakage current while in operation.
5. Before commencing the welding work for the first time on any day, fire section shall be informed and only after the site inspection by the Fire officers/Personnel, work shall be started.
6. Two buckets of water and sand shall be kept in an easily accessible area on the site.
7. Fire extinguishers recommended and issued by fire officers shall be kept on the site.
8. Used paint drums shall be stored in specified store only after closing them properly.
9. Personal protective equipment such as safety shoes, hand gloves, welder's mask, ear plug etc. depending upon the requirement of the work shall be provided by the contractor to the workmen to prevent occupational health hazards.
10. The safety belt shall be provided by the contractor and used by the workmen while working from height for more than 10' from Ground level.
11. Passages near lift lobby and staircases shall be used for stacking / dumping any kind of materials/waste.
12. None of the fire extinguishers shall be removed/shifted from its designated location.
13. Power supply shall be switched off from the mains when equipment is not in use.
14. Wood-shavings and saw-dust generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
15. Any debris generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
16. Battery operated emergency light/torches shall be provided by the contractor to the workmen while working beyond office hours.

PLACE:

**SIGNATURE AND SEAL OF THE
CONTRACTOR**

DATE:

g) "Net Prices"

If in arriving at the contract amount the Contractor shall have added to or deducted from the total of items in the Tender any sum, either as a percentage or otherwise, then net price of any item in their tender shall be the sum arrived at by adding to or deducting from the actual figures appearing in the Tender as the price of that the item a similar percentage or proportionate sum provided always that in determining the percentage or proportion of the sum so added or deducted by the Contractor the total amount of the any Prime Cost items and provisional sums of money shall be deducted from the total amount of the tender. The expression "net rates" or "net prices" when used with reference to the contract or account shall be held to mean rates or prices so arrived at.

h) "The works"

Shall mean **Electrical Installation Work in connection with Renovation of Five Class III Flats in Reserve Bank of India Staff Quarters at RPC Layout, Bengaluru**

5.2 Scope of Contract: The contractor shall carry out and complete the said work in every respect in accordance with this contract and with the directions of and to the satisfaction of the Bank's Engineer. The Bank's Engineer may in his absolute discretion and from time-to-time issue further drawings and/or written instructions, details, direction and explanations which are hereafter collectively referred to as "Bank's Engineer's instruction in regard to":

- a) The variations or modifications of the design, quality or works or the addition or omission or substitutions of any work.
- b) Any discrepancy in the Drawing or between the Schedule of Quantities and/or Drawing and/or specifications.
- c) The removal from the site of any materials brought thereon by the contractor and the substitution of any other material therefor.
- d) The removal and/or re-execution of any works executed by the contractor.
- e) The dismissal from the works of any persons employed thereupon.
- f) The opening up for inspections of any work covered up.
- g) The amending and making good of any defects under clause 20 hereof.

The contractor shall forthwith comply with and duly execute any work comprised in such Bank's Engineer's instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representative upon the works by the Bank's Engineer shall, if involving a variation, be confirmed in writing by the Contractor within seven days, such shall be deemed to be Employer's instructions within the scope of the Contract.

The contractor shall submit a statement of variations giving quantity and rates duly supported by analysis of rates, vouchers etc. The rates on scrutiny and final acceptance by the Employer shall form a supplementary tender. The Employer shall not be liable for payment of such variations until these statements are sanctioned by him.

1. The Contract shall be executed in triplicate and the Bank's Engineer, the Employer and the Contractor shall be entitled to one executed copy each for his use. The contractor shall prepare the line diagram and Lay out plan of the site for carrying out the work. Before the issue of the final certificate to the Contractor he shall submit to the Bank's Engineer all Drawings and Specifications.
2. The Contractor shall provide at his cost everything necessary for the proper execution of the works 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 therefrom, and if the Contractor finds any discrepancy in the Drawings or between the Drawings, Schedule of quantities and Specifications, he shall immediately and in writing refer the same to the Bank's Engineer, who shall decide which is to be followed.

5.3 Authorities, notices and patents: The Contractor shall conform to the provisions of any Act of the Legislature relating to the works, and to the regulations and bye-laws of any authority, and of any water, electricity supply and other companies and/or authorities with whose system the structure is proposed to be connected, and shall, before making any variations from the Drawings or Specifications that may be necessitated by so conforming, give to the architect written notice, specifying the variation proposed to be made and the reason for making it and apply for instructions thereon. In case the Contractor shall not within ten days receive such instructions he shall proceed with the work conforming to the provisions, regulations, or byelaws in question, and any variation so necessitated shall be dealt with under clause 17 hereof.

The contractor shall bring to the attention of the Employer all notices required by the said Acts, regulations or byelaws to be given to any authority and pay to such authority or to any public office all fees that may be properly chargeable-in respect of the works and lodge the receipts with the Employer.

The Contractor shall indemnify the Employer against all claims in respect of patent rights and shall defend all actions arising from such claims and shall himself pay all royalties, license fees, damages cost and charges of all and every sort that may be legally incurred in respect thereof.

5.4 Setting out of work: The contractor shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the position levels, dimensions and alignment of all parts thereof. If at any time any error in this respect shall appear during the progress of the works or within a period of one year from the completion of the works, the Contractor shall, if so required, at his own expense rectify such error to the satisfaction of the Bank's Engineer.

5.5 Materials and Workmanship to conform to description: All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or specifications and in accordance with the contract and the Contractor shall furnish to the Employer with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials.

5.6 Contractor's superintendence and representative on the works: The Contractor shall give all necessary personal superintendence during the execution of the works and so long thereafter as the Employer may consider necessary until the expiration of the "Defects Liability Period" stated in the Appendix hereto. The contractor shall, also during the whole time the works are in progress employ a competent representative who shall be constantly in attendance at the works while the men are to work. Any directions, explanations, instructions or notice given by the Bank's Engineer to such representative shall be held to be given to the Contractor.

5.7 Dismissal of workmen: The Contractor shall on the request of the Bank's Engineer immediately dismiss from the works any person employed thereon by him who may, in the opinion of the Bank's Engineer, be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of the Bank's Engineer.

5.8 Access to works: The Employer, shall at all reasonable times, have free access to the works and/or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall give every facility to the Employer necessary for Inspections and examination and test of the materials and workmanship. No person not authorized by the Employer except the representatives of public authorities shall be allowed on the works at any time.

5.9 Bank's Engineer: The term Bank's Engineer shall mean the person appointed and paid by the Employer to inspect the works. The Contractor shall afford the Bank's Engineer every facility and assistance for inspecting the works and materials and for checking and measuring time and materials.

The Bank's Engineer, or the Employer shall have power to give notice to the Contractor or to his representative of non-approval or any work or materials and such work shall be suspended, or the use of such materials shall be discontinued. The work will from time to time be examined by the Asst.Manager(Tech)/Manager (Tech.) 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 a stage of the works or after the same is completed. Subject to the

limitations of this clause the Contractor shall take instructions only from the Bank's Engineer.

5.10 Assignment and Subletting: 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 under-let the Contract or any part share thereof or any interest therein without the prior written consent of the Employer and not undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their progress.

No alteration, omission or variation shall vitiate this contract but in case the Bank's Engineer thinks proper at any time during the progress of the works to make any alterations in, or addition to, or omissions from the works or any alteration in the kind of quality of the materials to be used therein and shall give notice thereof in writing under his hand to the Contractor, the Contractor shall alter, add to, or omit from, as the case may be, in accordance with such notice, but the contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the Contract. Stipulations, specifications or Contract Drawings without the previous consent in writing of the Employer and the value of such extras alterations, additions or omission shall, in all cases, be determined by the Employer in accordance with the provisions of Clause 17 hereof, and the same shall be added to, or deducted from the Contract Amount, as the case may be accordingly.

5.11 Schedule of Quantities: The Schedule of quantities, unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Method of Measurement.

Any error in description or in quantity or in omission of items from the schedule of quantities shall not vitiate this contract but shall be rectified and the value thereof, as ascertained under Clause 17 hereof, shall be added to, or deducted from the Contract Amount (as the case may be) provided that no rectification of errors, if any, shall be allowed in the Contractor's schedule of rates.

5.12 Sufficiency of Schedule of Quantities: The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and/or the schedule of rates and prices which rates and prices shall cover all his obligations under the contract, and all matters and things necessary for the proper completion of the works.

5.13 Measurement of works: The Bank's Engineer may, from time to time, intimate to the contractor that he requires the works to be measured, and the Contractor shall forthwith attend or send a qualified agent to assist Assistant Engineer in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them.

Should the Contractor not attend or neglect or omit to send such agent then the measurement taken by the Bank's Engineer or a person approved by him shall be taken to

be correct measurement of the works. Such measurements shall be taken in accordance with the Mode of Measurements detailed in the Specifications.

The Contractor or his Agent may at the time of measurement take such notes and measurement as he may requires.

All authorized extra works, omissions and all variations made with the prior approval in writing of Employer shall be included in such measurements.

5.14 Prices for extra: The Contractor may, when authorized and shall, when directed, in writing by the Employer, add to, omit from or vary the works shown upon the drawings, or described in the specification, or included in the schedule of Quantities, but the contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the Bank's Engineer shall, if confirmed by them in writing within seven days, be deemed to have been given in writing.

No claim for an extra shall be allowed unless it shall have been executed under provisions of clause above hereof with the concurrence of the Employer herein mentioned. Any such extra in herein referred to as authorized and shall be made in accordance with the following provisions.

- (a) (i) The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work in similar character and executed under conditions as the work priced therein.

(ii) Rates for all items, wherever possible should be derived out of the rates given in the priced Schedule of Quantities.
- (b) The net prices of the original tender shall determine the value of items omitted provided if omissions vary the conditions under which any remaining items of works are carried out, the prices for the same shall be valued under sub-clause(c) hereof.
- (c) Where the extra works are not of similar character and/or quoted under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omissions or additions relative the amount of the whole of the Contract works or to any part thereof shall be such that in the opinion of the Bank's engineer, the net rate or price contained in the priced Schedule of Quantities or tender or for any item of the works involves loss or expenses beyond that reasonably contemplated by the contractor or is by reason of such omission or addition rendered unreasonable or inapplicable, the Bank's Engineer shall fix such other rate or price as in the circumstances he shall think reasonable and proper, with the prior approval in writing of the Employer.
- (d) Where extra work cannot be properly measured or valued, the Contractor shall be allowed day work prices as the net rates stated in the tender or the Priced Schedule or Quantities or, if not so stated, then in accordance with the local day work rates and wages for the district provided that in either case vouchers specifying the daily time (the workmen's

names) and materials employed be delivered for verification to the Bank's Engineer at or before the end of the week following that in which the work has been executed.

The measurement and valuation in respect of the Contract shall be completed within the "period of final measurements" stated in the Appendix or if not stated then within six months of the completion of the Contract works as defined in Clause 21 hereof.

5.15 Unfixed materials when taken into account to be the property of the Employer

Where in any certificates (of which the Contractor has received payment) the Bank's Engineer has included the value of any unfixed materials included for and/or placed on or adjacent to the works such materials shall become the property of the Employer and they shall not be removed except for use upon the works, without the written authority of the Employer. The Contractor shall be liable for any loss of, or damage to, such materials.

5.16 Removal of improper work : The Employer shall, during the progress of the works, have power to order in writing from time to time the removal from the works within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Bank's Engineer are not in accordance with the Specifications, the substitutions of proper materials, and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the drawings & specifications or instructions and the contractor shall forthwith carry out such order at his own cost. In case of default on the part of Contractor to carry out such order, the Employer shall have the power to employ any pay other persons to carry out the same; and all expenses consequent thereon, or incidental thereto, shall be borne by the Contractor, or may be deducted by the Employer from any moneys due, or that may become due, to the Contractor.

5.17 Defects after virtual completion : Any defect, shrinkage, settlement or other fault which may appear within the "Defects Liability Period" stated in the Appendix hereto, or, if none stated them within twelve months after the virtual completion of the works, arising in the opinion of the Employer from materials of workmanship not in accordance with the contract, shall upon the direction in writing of the Employer, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor, at his own cost and in case of default the Employer may employ and pay other persons to amend and make good such defects, shrinkage settlements or other faults, and all damages loss and expenses consequent thereon are incidental thereto shall be made good and borne by the Employer or may be deducted by the Employer, upon the Bank's Engineer's Certificate in writing, from any money due or that may become due to the Contractor, or the Employer may in lieu of such amending and making good by the Contractor deduct from any money due to the Contractor a sum, to be determined by the Employer equivalent to the cost of amending such work and in the event of the amount retained under clause 32 hereof being insufficient, recover the balance from the Contractor, together with any expenses the Employer may have incurred in connection therewith. Should any defective work have been done or materials supplied by any sub-contractor employed on the works who has been nominated as provided under clause 12 and 22 hereof, the contractor shall be liable to make

good in the same manner as if such work or material had been done or supplied by the Contractor and been subject to the provision of this clause 2 hereof. The contractor shall remain liable under the provisions of this clause the signing of any certificate or the passing of any accounts by the Employer.

5.18 Certificate of virtual completion and defects liability period: The works shall not be considered as completed until the Bank's Engineer has certified in writing that they have been virtually completed. The defects liability period shall commence from the date of such certificates.

5.19 Nominated Sub-Contractor: All Specialists, Merchants, Tradesmen and others executing any work of supplying and fixing any goods for which the prime cost prices or provisional sums are included in the Schedule of Quantities and/or Specifications who may be nominated or selected by the Employer or 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 the Contractor shall make reasonable objection are (save where the Architect and the Contractor shall otherwise agree) who will not enter into contract providing.

- (a) That the nominated sub-contractor shall indemnify the contractor against the same obligation 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-contractors his servants or agents or any misuse by him or them or any scaffolding or other plant, the property of the Contractor or under any Workmen's Compensation Act in force.
- (c) Payment shall be made to the nominated sub-contractor within fourteen days of his receipt of the Employer's Certificate provided that before any Certificate is issued the Contractor shall upon request furnish to the Bank proof that all nominated sub-contractors accounts included in previous certificates have been duly discharged; in default whereof the Employer may pay the same upon a Certificate of the Bank and deduct the amount thereof from any sums due to the Contractor. The exercise of this power shall not create private of contract as between Employer and Sub-Contractor.

5.20 Other persons employed by Employer: The Employer reserves the right to use premises and any portion of the site for the execution of any work not included in this Contract which it may desire to have carried out by other persons, and the Contractor shall allow all reasonable facilities for the execution of such work but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the works included in the Contract and the Contractor shall not be responsible for any damage or delay which may happen to or occasioned by such work.

5.21 Insurance in respect of damage to person and property: The Contractor shall be reasonable for all injury to persons, animals or things, and for all structural and decorative

damage to property which may arise from the operation or neglect of himself or of any nominated Sub-Contractor or any employee or either, whether such injury or damage arises from carelessness, accident or any other cause whatever, in any way connected with the carrying out of this Contract. The liability under this clause shall be held to include inter alia any damage to Building, whether immediately adjacent or otherwise, and any damage to roads, streets, footpaths, bridges or ways as well as all damage caused to the Building and other structures and works forming the subject matter of this Contract. The contractor shall also be responsible for any damage caused to the Building and other structures and works forming the subject matter of this Contract by frost, rain, wind or other inclemency of weather. The Contractor shall indemnify and keep indemnified the Employer and hold him harmless in respect of all and any loss and expenses arising from any such injury or damage to persons or property as aforesaid and also against any claim made in respect of injury or damage, whether under any Statute or otherwise and also in respect of any award of compensation or damages consequent upon such claim. The contractor shall, at his own expense, effect and maintain with effect from the date of commencement till issue of the completion certificate under this contract, with an approved insurance company, an All Risks Policy for insurance for an amount equal to the amount of the contract including earthquake risk in the joint names of the Employer and the contractor (the name of the former being placed first in the policy) against all risks as per the standard all risk policy for contractors and deposit such policy or policies with the employer before commencing the works.

5.21.2 The Contractor shall reinstate all damage of every sort mentioned in this Clause, so as to do delivery of the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties. The Contractor shall also indemnify and keep indemnified the Employer against all claims which may be made against the Employer by any person/ member of the public or other third party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense arrange to effect and maintain, with effect from the date of commencement until the completion of the Contract, with an approved Insurance company a policy of Insurance in the joint names of the Employer and the Contractor(the name of the former being placed first in the policy) against such risks and deposit such Policy or Policies with the Employer before commencement of the work. The minimum limit of coverage under the policy shall be as defined elsewhere under General instructions to the tenderer. The Contractor shall also similarly indemnify the Employer against all claims which may be made upon the Employer whether under the Workmen Compensation Act or any other statute in force during the currency of this contract or at Common Law in respect of any employee of the Contractor or any Sub-Contractor and shall at his own expenses effect and maintain, with effect from the date of commencement until the completion of the Contract, with an approved Insurance company a policy of Insurance in the joint names of the Employer and the Contractor(the name of the former being placed first in the policy) against such risks and deposit such Policy or Policies with the Employer from time to time during the currency of the Contract. In default of the

contractor ensuring as provided above, the employer may so ensure and may deduct the premiums paid from any money due or which may become due to the contractor.

5.21.3 The Contractor shall be responsible for any liability which may be excluded from the Insurance Policies above referred to and also for all other damages to any person, animal or property arising out of and incidental to the negligent or defective carrying out of this Contract, whatever may be the reasons due to which the damage shall have been caused. He shall also indemnify and keep indemnified the Employer in respect of all and any costs, charges or expenses arising out of any claim or proceedings relating to the works and also in respect of any award of compensation or damages, arising therefrom. Without prejudice to the other rights of the employer against contractor in respect of such default, the Employer shall be entitled to deduct from any sums payable to the Contractor the amount of any damage, compensation, costs, charges and other expenses paid by the employer and which are payable by the contractor under this clause. The contractor shall upon settlement by the insurer of any claim made against the insurer pursuant to a policy taken under this clause proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the money received from the insurer in respect of such damage shall be paid to the contractor and the contractor shall not be entitled to any further payments in respect of the expenditure incurred for Building or repairing of the materials or goods destroyed or damaged.

5.21.4 The contractor, in case of re-Building or reinstatement after damage shall be entitled to such extension of time for completion as the Employer may deem fit, but shall, however, not be entitled to reimbursement by the employer of any shortfall or deficiency in the amount finally paid by the insurer in settlement of any claim arising as set out herein.

5.21.5 Without prejudice to his liability under this clause, the contractor shall also cause all nominated sub-contractors to effect, for their respective portions of works similar policies of insurance in accordance with the provisions of this clause and shall produce or cause to produce to the employer such policies. The contractor shall not permit a nominated sub-contractor to commence work at site unless said insurance policies are submitted. In the event of failure of the sub-contractor to take out such policy or policies of insurance before commencing the works at site, the contractor shall be responsible for any claim or damage attributable to the said sub-contractor.

5.21.6 The Employer shall be entitled to deduct the amount of any damage, compensation, costs, charges and expense arising of accruing from or in respect of any such claims or damage from any or all sums due or to become due to the Contractor without prejudice to the Employer's other rights in respect thereof. The Contractor shall at his own expense, arrange to effect and maintain (until the virtual completion of the contract) with an approved office the following insurance policy in the joint name of employer and himself with the employer being first (Principal) and deposit such policy or policies with the employer from time during the currency of this contract.

1. Transit, storage, erection, testing and commissioning policy (C.A.R. policy) for the total amount of contract including fire.
2. Workmen compensation policy.
3. Third party liability policy with the limit as under: Rs.10,00,000/- per annum
Rs.2,00,000/- per occurrence

5.22 Insurance: The contractor shall, within 14 days from the date of commencement of the works, insure the works at his cost and keep them insured until the virtual completion of works, against loss or damage by fire with an office **in the joint names of the employer and the contractor (the name of the former being placed first in the policy) for the full amount of the contract.** Such policy shall cover the property of the "Employer" only. **The contractor shall deposit the policy and receipts for the premium with the employer within twenty-one days from the commencement of the works.** In default of the contractor, insuring as provided above, the employer may so insure the works and may deduct the premium paid from any moneys due or which may become due to the Contractor without prejudice to the other rights of the Employer in respect of such default. In case it becomes necessary to suspend the works, the Contractor shall as soon as the claim under the policy is settled, or the work reinstated by the Insurance Office, should they elect to do so, proceed with all due diligence with the completion of the works in same manner as though the fire had not occurred and in all respects under the same conditions of Contract. The Contractor in case of rebuilding or reinstatement after fire shall be entitled to such extension of time for completion as deems fit.

5.23 Date of commencement and completion: The Contractor shall be allowed admittance to the site on "Date of Commencement" stated in the Appendix hereto, or each later date as may be specified by the Employer and shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same (except such painting or other decorative work as the Employer may desire to delay) or before the "Date of Completion" stated in the Appendix subject nevertheless to provisions for extension of time hereinafter contained.

5.24 Damages for non-completion: If the Contractor fails to maintain the required progress of the works and fails to complete the works by the completion time stipulated in the Contract or within any extended time under time extension Clause 27 & 20 hereof and the employer certifies in writing that in his opinion the same ought reasonably to have been completed, the Contractor shall pay the Employer the sum named as "Liquidated Damages" for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any moneys due to the Contractor. The contractor hereby specifically agrees and authorizes the Employer to deduct such liquidated damages, if any, from any instalment of payment becoming due and payable to the contractor in terms of this contract."

5.25 Delay and Extension of Time: If in the opinion of the Employer, the works be delayed
a. by force majeure or

- b. by reason of any exceptionally inclement weather or
- c. by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through the Contractor's own default or
- d. by the works or delays of other Contractors or Tradesmen engaged or nominated by the Employer and not referred to in the Schedule of Quantities, and/or Specification or
- e. by reason of Employer's instructions as per Clause 2 hereof or
- f. by reason of civil commotion, legal combination of workmen or strike or lock-out affecting any of the Building trades or
- g. in consequence of the Contractor not having received in due time, necessary instructions from the Employer for which he shall have specifically applied in writing or
- h. from other causes which the Employer may certify as beyond the control of Contractor or
- i. in the event the value of the work exceeds the value of the Priced Schedule of Quantities owing to variation, the Employer may make a fair and reasonable extension of time for completion of the Contract works. In case of such strike or lock-out the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Employer to proceed with work.

If the contractor needs an extension of time for completion of the work or if the completion of work gets delayed for any reason beyond the due date of completion stipulated in the contract, the contractor shall apply to the employer for extension of time in writing at least 7 days before the expiry of the scheduled time and while applying for extension of time, contractor shall furnish the reasons in detail and his justification along with documentary evidence (copy of relevant pages of hindrance register), if any, for delays. Only that period of extension of time as granted by the employer (on receipt of the application from the contractor or even in absence of any such application certification as to the reasonableness of the grounds for delay) will qualify for exemption of imposition of liquidated damages. For the balance period in excess of original stipulated period and an authorized extension of time granted by the employer, the provision of liquidated damages as stated under clause 36 will become applicable.

5.25.2 Further, the contract shall remain in force even for the period beyond the due date of completion irrespective of whether the contractor has applied or not, for the grant of extension of time for completion unless the employer decides to terminate the contract. The delay for completion of work for any reason will not entail any right to the contractor to claim any revision of rates or any extra compensation for any reason.

5.26 Contractor's failure to comply with Employers instruction: If the Contractor after receipt of written notice from the Employer requiring compliance within 10 days fails to comply with such further drawings and/or Bank's instructions the Employer may employ and pay other persons to execute any such work whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the

Contractor by the Employer as a debt or may be deducted by him from any moneys due to the Contractor.

5.27 Termination of Contract by the Employer: If the Contractor being an individual or a firm commits any "act of insolvency" or shall be adjudged an insolvent or being an incorporated company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervisions of the court and the Official Assignee or the Liquidator in such acts of insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so to show the reasonable satisfaction of the Architect that he is able to carry out and fulfil the Contract and to give security therefore, if so required by the Architect.

Or if the Contractor (whether an individual, first or incorporated company shall suffer execution or other process of court attaching property to be issued against the Contractor.

Or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the Contractors.

Or shall assign to sublet this Contract without the consent in writing of the Employer first had and obtained.

Or shall charge or encumber this Contract or any payments due or which may become due to the Contractor hereunder.

- (i) Has abandoned the Contract, or
- (ii) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progresses of the works for fourteen days after receiving from the Bank notice to proceed or
- (iii) Has failed to proceed with the work with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- (iv) Has failed to remove materials from the site or to pull down and replace work for seven days receiving from the Bank written notice that the said materials or work were condemned and rejected by the Bank's Engineer under these conditions' or
- (v) Has neglected or failed persistently to observe and perform all of any of the acts, matter or things by the Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same.

5.27.2 Then and in any of the said cases the Employer may, notwithstanding any previous waiver, after giving seven days' notice in writing to the Contractor, determine the Contract, the whole of which shall continue in force as fully as if the Contract has not been so determined, and so if the works subsequently execute had been executed by or on behalf of the Contractor. And further, the Employer by his agents or servants may enter upon and

taken possession of the works and all plant, tools scaffoldings, sheds, machinery, steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use 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 work or by employing any other Contractor or other person or persons to complete the works, and the Contractor shall not in any way interrupt or do any act matter or thing to prevent or hinder such other contractor or other person or persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter as convenient the Bank shall give a notice in writing to the Contractor to remove his surplus materials and plant, and should the Contractor fail to do so within a period of fourteen days after receipt thereof by him, the Employer may sell the same by public auction, and give credit to the Contractor for the net amount realized. The employer shall thereafter ascertain and certify in writing under his hand what of the said plant and materials so taken possessions or by the Employer and the expenses or loss which the Employer shall have been put to in procuring the works to be completed and the amount. If any, owing the Contractor and the amount which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be, and the Certificate of the Bank shall be final and conclusive between the parties.

5.28 Termination of Contract by Contractor: If this payment of the amount payable by the Employer under Certificate of the Bank's Engineer shall be in arrears and unpaid for thirty days after notice in writing requiring payment of the amount as aforesaid shall have been given by the Contractor to the Employer, or if the Employer interferes with or obstructs the issue of any such Certificate, or if the Employer shall repudiate the Contract, or if the works be stopped under the order of the Architect or the Employer or by any injunction or other order of any court of Law, then and in any of the said cases the Contractor shall be in liberty to determine the Contract by notice in writing to the Employer, and he shall be entitled to recover from the Employer, payment for all works executed and for any loss he may sustain upon any plant or materials supplied or purchased or prepared for the purpose or the Contract.

In arriving at the amount of such payment the net rates contained in the Contractor's original Tender shall be followed or where the same may not apply valuation shall be made in accordance with Clause 17 hereof.

5.29 Certificates and Payments: The Contractor shall be paid by the Employer from time to time by instalments under interim Certificate to be issued by the Bank's Engineer on account of the works executed work to the approximate value named in the Appendix as 'Value of work for Interim Certificate' has been executed in accordance with this Contract, And when the works have been virtually completed, the Contractor shall be paid by the Employer in accordance with the Certificate to be issued by the Bank's Engineers the sum of money named in the Appendix as "instalment after Virtual Completion". And the Contractor shall be entitled to the payment of the Final Balance in accordance with the final Certificate at the expiration of the period referred to as 'the Defects liability Period' in the Appendix hereto from the date of virtual completion or as soon as after expiration of such

period as the works shall have been finally completed and all defects made good according to the true intent and meaning hereof whichever shall last happen provided always or at or after their completion shall not relieve the Contractor from his liability under clause 21 and 36 nor relieve the Contractor of his inability in cases of fraud, dishonesty, or fraudulent concealment relating to the works or materials or to any matter dealt with in the Certificate and in case of the all defects and insufficiencies in the works or materials which a reasonable examination would not have disclosed.

The Employer shall have power to withhold any Certificate if the works or any parts thereof are not being carried out to his satisfaction.

5.30 Delayed Payment: Any amounts payable by the Employer to the Contractor shall, if not paid within the 'period of honouring Certificates' names in the Appendix carry interest at the rate named in the Appendix as the "Rate of interest for delayed payment" from the date upon which sum ought to have been paid by the Employer until the payment.

5.30.1 The decision, opinion, direction Certificate (except for payment) with respect to all or any of the matters under Clauses 2(a, b), 4, 5, 14, 20 (a, b, c, d and f) hereof (which matters are herein referred to as the excepted matters) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other decision, opinion, direction, shall be subject to the right of Arbitration and review under the Clause 35 hereof in the same way in all respects (including the provisions as to opening the reference).

5.31 Settlement of disputes by Arbitration: All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the works (whether during the progress of the works or after their completion and whether before or after the determination abandonment or breach of the contract) shall be referred to and settled by the Bank who shall state its decision in writing. Such decision may be in the form of a final certificate or otherwise. The decision of the Bank with respect to any of the excepted matters shall be final and without appeal as stated in Clause 33 hereof. But if either the Contractor be dissatisfied on any matter on which a decision is taken by the Bank as above, except any of the expected matter the Contractor may within 28 days after receiving notice of such decision give a written notice to the other party requiring that the matters in dispute be arbitrated upon. Such written notice shall specify the matters, which are in dispute or difference of which such written notice has been given. If both the parties agree, a single arbitrator would be appointed for the purpose. In case no agreement could be reached on the appointment of single arbitrator, both the parties will nominate one person each as an arbitrator on their behalf. The two arbitrators nominated by the parties shall nominate one more person to act as third arbitrator or umpire.

5.31.2 The arbitrator or Arbitrators, as the case may be, shall have power to open up, review and revise any certificate, opinion, decision, requisition or notice, save in regard to the excepted matters, referred to in the preceding clause, and to determine all matters to dispute which shall be submitted to arbitration and of which notice shall have been given as aforesaid.

5.31.3 The arbitrator or Arbitrators, as the case may be, shall make his or their award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case during the arbitration proceedings the parties mutually settle or compromise their dispute or difference, on the parties filing their joint memorandum of the settlement or compromise, the Arbitrator or the Arbitrators as the case may be, shall make an award in terms of such settlement or compromise.

5.31.4 Upon any such reference, the decision on the cost incidental to the reference and Award respectively shall be in the discretion of the arbitrator or Arbitrators as the case may be, who may determine the amount thereof or direct the same to be taxed as between the party and party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

5.31.5 This submission shall be deemed to be a submission to arbitration within the meaning of the Indian Arbitration and Conciliation Act, 1996 or any statutory modification thereof.

5.31.6 The award of the arbitrator or Arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence and shall until the decision of the Arbitrator or Arbitrators, as the case may be, is given, abide by the decision of the Bank. No award of the Arbitrator or Arbitrators, as the case may be, shall relieve the Contractor of his obligations to adhere strictly to the Bank's instructions with regard to the actual carrying out of the works. The Employer and the Contractor hereby also agree that arbitration under this Clause shall be a condition precedent to any right of action under the Contract.

5.32 Right of technical scrutiny of final bill

The Employer shall have a right to cause a technical examination of the works and the final bill of the contractor including all supporting vouchers, abstracts, etc. to be made at the time of payment of the final bill. If as a result of this examination of otherwise any sum is found to have been overpaid or over certified it shall be lawful for the employer to recover the sum.

5.33 Employer entitled to cover compensation paid to workman

If, for any reason, the Employer is obliged, by virtue of the provisions of the Workmen's Compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the Contractor in execution of the works, the Employer shall be entitled to recover from the Contractor the amount of compensation so paid, and without prejudice to the rights of the Employer under the said Act. The Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Employer shall not be bound to contest any claim made against it under the said Act, except on the written request of the Contractor and upon his giving to the Employer full security to the satisfaction of the Employer for all costs for which the Employer might become liable in consequence of contesting such claim.

5.34 Abandonment of works

If at any time after the acceptance of the tender, the Employer shall for any reasons whatsoever not requires the whole or any part of the works to be carried out, the Bank shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the whole works.

5.35 Return of surplus materials

Notwithstanding anything to the contrary contained in any or all the clauses of this Contact, where any material for the execution of the Contract is procured with the assistance of the Employer by purchase made under orders or permits or licenses issued by Government, the Contractor shall hold the said materials economically and solely for the purpose of the Contract and not dispose of them without the prior written permission of the Employer and return it to the Employer, if required by the Employer, at the price to be determined by the Bank having due regard to the conditions of the materials, the price to be determined not be exceed the purchase price thereof inclusive of sales tax, octroi and other such levies paid by the Contractor in respect thereof, in the event of breach of the aforesaid condition, the Contractor shall in addition to being liable to action for contravention of the terms of licenses or permit and/or criminal breach of trust, be liable to Employer for all moneys, advantages or profits resulting or which in the usual course would have resulted to his by reason of such breach.

5.36 Right of employer to terminate contract in the event of death of Contractor or individual

Without prejudice to any of the rights or remedies under this Contract, if the Contractor, being an individual, dies, the Employer shall have the option of terminating the contract without incurring any liability for such termination.

5.37 The Sexual Harassment of women at workplace:

The Contractor / Agency shall be solely responsible for full compliance with the provision of "the Sexual Harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013.

1. In case of any complaint of sexual harassment against its employee within the premises of the Bank, the complaint will be filed before the Internal Complaints Committee constituted by the Contractor / Agency and the Contractor / Agency shall ensure appropriate action under the-said Act in respect to the complaint.
2. Any complaint of sexual harassment from any aggrieved employee of the contractor against any employee of the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank.
3. The contractor shall be responsible for any monetary Compensation that may need to be paid in case the incident involves the employees of the contractor, for instance

any monetary relief to Bank's employee, if sexual violence by the employee of the contractor is proved.

4. The contractor shall be responsible for educating its employees about prevention of sexual harassment at workplace and related issues.

5.38 NON-DISCLOSURE and Indemnity CLAUSE during the execution of work, DLP

The contractor shall not disclose directly or indirectly any information, materials and of the Bank's infrastructure/ system/equipment etc. which may come to the profession or knowledge of the contractor during the course of discharging its contractual obligations in connection with the agreement, to any third party and shall at all times hold the same in strictest confidence. The contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer.

5.38.2 The contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the contractor and the Employer shall be entitled to claim damages and pursue legal remedies.

5.38.3 The contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied. The contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

Place:

Date :

Seal and Signature of Tenderer

Section (VI)

Appendix Hereinbefore Referred To

1.	Defect liability Period	12 months from the date of issue of virtual completion certificate.
2.	Period of final measurement	1 month from the date of final commissioning.
3.	Date of commencement	10 th day from the date of award letter.
4.	Period of completion	26 weeks from the 10 th day of work order
5.	Liquidated Damages	Rs.0.25% of the contract value per week of delay subject to a maximum of 10% of the contract amount.
6.	Value of work for Interim Certificate for running bill	As per the payment terms and conditions.
7.	Retention Percentage	Not applicable
8.	Period of honouring interim certificate	1 month
9.	Interest for delayed payment	3 percent per annum

Signature and seal of Contractor

Check List

Tenders for Providing of Electrical Installation Work in connection with Renovation of Five Class III Flats in Reserve Bank of India Staff Quarters at RPC Layout, Bengaluru.

Sr. No.	Description	Bank's terms	Whether acceptable to the tenderer or not (please indicate YES or NO)
1.	Validity	90 days from the date of opening of the tender.	
2.	EMD	Not applicable	
3.	Prices	Shall remain firm for the entire period of contract.	
4.	Completion period	26 weeks from 10 th day of the date of issue of work order.	
5.	Liquidated damages for delay in completion of work	Rs.0.25% of the contract value per week subject to maximum of 10% of contract value.	
6	Guarantee	One year after the date of virtual completion.	
7	Terms of payment	As per tender terms and conditions	
8	Insurance	Shall include for 1. Contractor All Risk Policy including fire for supply, transit, storage, erection, testing and commissioning etc., 2. Workmen compensation policy and 3. Third Party Liability policy as per terms and conditions	

Signature of the contractor _____

Name of the firm _____

Seal of the firm _____

List of approved Makes

The make of equipment shall be from among those mentioned below. All electrical items, equipment, fittings having BIS mark and subject to Bank's approval.

Note: The Bank shall have right to choose/select of any of the make/model from the following for this work. The successful contractor should arrange and display all makes/models of the

following in Estate Department for inspection and selection by the Bank's Officials for the above work.

Sl. No	Item Description	Make	Model/Series	Remarks
1.	Modular switch/ socket/switch plate Regulator/sockets for TV/Telephone /Cat-6	Anchor	Penta, Rider, Roma THEA, VISION	1. 5A/6A, 5 pins sockets shall be provided. The two middle pins of the socket shall be operated with ease to mobile/Tablet charging point. 2. Step type fan regulator with uniform speed control shall be provided.
		Crabtree	Athena, Thames, Murano	
		Legrand	ARTEOR, Mylinc, Myrus	
		MK	Bienze Plus, WrapAround	
		Schneider	ZENCELO	
		Siemens	Delta	
		SSK	SSK Grand, Signature	
2.	Ceiling Fan	Almonard	Regular	Fans with copper winding with double ball bearing.
		Atomberg	EFFICIO, Renesa	
		Bajaj	Ultima(1200mm), Esteem(1200mm)	
		Crompton	Aura, BRIZ, HS PLUS (1200MM), BREEZE	
		Havells	ES 50	
		Khaitan	Euro, Kraze	
		Orient	Gratia, Summer Breeze, Summer King, Twister	
		Usha	Striker	
3.	Exhaust Fan	Almonard	Airvent	Exhaust fan with suitable flaps shall be provided.
		Bajaj	Bahar (Metal), Maxima	

		Crompton	Brisk Air,Tidal Air,Trans Air(metal)	
		Havells	Ventilair,Turboforce(metal)	
		Khaitan	Vento, Fresh Air (metal)	
		Orient	Ventilator,Hill Air (Metal)	
		Usha	Crisp Air,Aeroclean(Metal)	
4.	Cabin Fan	Crompton (Metal)/Havells (Metal) /Cinni (Metal)		Metal body fans shall be provided
5.	LED Tube light	Bajaj	Flexitron, Connect	Preferably, LED light having the LM-79 report/certification from NABL accredited lab shall be procured.
		Crompton	Radiance Ray Plus,Laser Ray,Light Linea	
		Havells	EdgeLit Slim	
		Jaquar	Glaze	
		Orient	Eternal Grace	
		Philips	Smart Bright,Endura Next,Astra Line,ESSENTIAL TUBE,Slim line,Twin glow	
		Syska	Syska LED	
		Wipro	Garnet,Garnet Plus	
6.	LED Bulb/Lamp	Bajaj	BEE 3 star or higher rated LED bulb as per the site requirement shall be provided, wherever BEE star rating is not available, the energy efficient LED lamp/s shall be provided based on latest equivalent Lumens per watt declared by BEE	
		Crompton		
		Havells		
		Jaquar		
		Orient		
		Philips		
		Surya		
		Syska		
Wipro				
7.	MCB DB, MCBs	Legrand/ABB/Siemens/Slider		
8.	PVC Wire (FRLS)	Finolex/Polycab/RRkabel		
9.	Telephone and TV cable wires	Finolex/Polycab/Delton/Delink		
10.	PVC conduits	Precision/Modi/VIP Plast		

Section - VII
Technical Specifications

7..1 TECHNICAL SPECIFICATION FOR ELECTRICAL WORK

7.1.1 SCOPE

This specification covers supply of materials, fabrication, and erection, testing and commissioning of Electrical system as per BOQ. Applicable provisions and conditions of contract shall govern the work under the Section.

7.1.2 GENERAL

The power supply system in the building & retail outlet stations shall be made available at 415/240 Volts, 50 Hz., A.C. 3 phase 4 wire, earthed neutral from local Electric Supply Authority.

All supply and installation work shall be carried out as per specification and in accordance with the construction drawings and shall conform to requirements called for in the Indian Electricity Rules 1956 with its latest amendment, Indian Electricity Acts and all relevant codes and practices issued by the Bureau of Indian Standard as amended up-to-date. The work shall also comply with the provisions of the general or local set of legislatures and regulations of any local or other statutory authority which may be applicable.

The Contractor for electrical work must possess valid Electrical Contractor's License endorsed by the Licensing Board, Directorate of Electricity of concerned State Government for the type of work he shall execute.

1. The work to be provided for by the Contractor, unless otherwise specified, shall include but not limited to the following:
2. Furnish all labour, supervision, services, materials, supports, scaffolds, construction equipment, tools, plants and transportation etc required for the proper execution of the job as per drawings, specification and schedule of items and get all necessary tests on materials and work conducted at their cost.
3. Notwithstanding the electrical layout shown in the drawing, the contractor shall obtain further approval of the layout at site from the Consultant / Engineer-in-Charge before commencement of the work.
4. Furnish samples of materials for approval before execution of the work.
5. To extend facilities to the Engineer-in-Charge to inspect work and assist them to obtain samples, if they so desire.
6. Furnish general arrangement drawings of the switchboard and other fabrication items, which the Engineer-in-Charge may direct for their approval.
7. To keep the appropriate Electrical Inspector & supply authority be informed from time to time as per the execution programme of the work shall be the responsibility

of the contractor and he shall be responsible to ensuring that all work passes their approval.

8. To provide all incidental items not shown or specified in particular but necessary for proper execution of works in accordance with the drawing, specification and schedule of items.
9. To maintain the work and keep them maintained till handed over to the owner in proper working condition.
10. Co-ordinate with all agencies including those engaged by the owner for proper execution of the job.

7.1.3 MATERIALS

Materials shall be of the approved make & quality. A list of materials of approved brand and manufacturer is indicated in the annexure. If the list of materials mentioned above stipulates two or more or alternative brands/makes of any product, the decision as to which brand/make shall be used in the work shall be taken by the Employer and the contractor shall provide the brand/make so selected without any extra cost.

In case, materials are required to be obtained from any manufacturer other than those listed on account of non-availability then prior approval from Consultant will be necessary, supported by relevant test certificates qualifying the required standard. Further tests as directed by the Consultant shall also be carried out by the contractor at their own cost, if required.

Contractor shall obtain approval from the Employer of sample of all materials before placing order and the approved sample shall be carefully preserved in an appropriate manner at the site for verification by the Employer.

For standard bought out items, the sizes manufactured by the firms listed shall prevail when there is discrepancy in the sizes mentioned in the schedule without any financial adjustment.

7.1.4 SPECIFICATIONS

Unless specifically mentioned otherwise, all applicable codes and standards published by the Bureau of Indian Standard and all other such publication as may be published by them after construction work starts, shall govern in respect of design, workmanship, quality and properties of material and method of testing.

7.1.5 SAFETY

All equipment shall be complete with approved safety devices wherever a potential hazard to personnel exists and with provision for safe access of personnel to and around equipment for operation and maintenance functions.

Special care shall be taken to ensure against entry of rats, lizards and other creeping reptiles which may create electrical short circuit inside live equipment.

7.1.6 DRAWINGS

On completion of all work the contractor shall furnish three copies of Ammonia print along with the original tracing of the following "As built" drawings to the Employer without any extra cost.

- I: Wiring diagram for final power / lighting distribution system showing the rating/ size of switchgear, cables, conduits, lighting fixtures and all accessories for individual installation.
- ii Detailed general arrangement drawings of the switchboard complete with dimension.
- iii Drawings showing the route of conduits and cables with sizes, lengths, sources and destination of all cables with the circuit designation number, etc.
- iv Drawings showing the balancing of phases with connected load in each circuit, etc.

7.1.7 TEST CERTIFICATES AND INSTRUCTIONS

Unless specifically mentioned otherwise, the contractor shall furnish, in duplicate, Manufacturer's Test Certificate with the delivery of the equipment to the Employer and Instruction Manual in English for operations and maintenance of equipment wherever required.

7.1.8 TESTING AND COMMISSIONING

Before each field test, the contractor shall obtain the permission from the site engineer and all tests shall be conducted in the presence of duly authorized representative. Records of each test shall be prepared immediately after the test and this record shall be signed by contractor's representative conducting the test and the site engineer attending the test. Copies of their record in quadruplicate shall be handed over to the Engineer-in-Charge.

A certificate in quadruplicate shall be furnished by the contractor countersigned by the certified supervisor under whose direct supervision the installation was carried out and the owner's site engineer.

7.1.9 COMPLETION OF WORK

Each item of the electrical work shall be considered as complete in all respects only after obtaining permanent service connection from local power supply authority, energizing, testing and final commissioning of the complete installation as directed by the Consultant/Engineer-in-Charge.

Payment on each item of electrical work shall be made as per measurement and proportionate to the quantum of work completed. In the event of any dispute with regard to the proportion of work complete, the decision of the Engineer-in-Charge shall be final and binding to the contractor.

7.1.10 PREAMBLE TO THE SCHEDULE OF WORK

The successful tenderer shall carefully go through the Clauses of Invitation to Tender, Specification, Schedule of Work and drawings and shall include in his rates any sum he may consider necessary to cover the fulfilment of the various clauses contained therein. Unit prices stated in the schedule of work against the item of work shall be inclusive of all installation, accessories and consumables necessary to complete the said work within the

contemplation of the contract. Beyond the unit prices no extra amount will be paid for incidental contingent work and materials.

The quantities mentioned in the schedule of work are probable quantities and it must be clearly understood that the contract is not a lump sum contract, that the probable quantities, the value of the entire tender are only indicative, and Employer does not in any way assure the tenderer or guarantee that the actual quantity of work would correspond to the probable quantities in the tender.

No change in unit rate will be admissible on any variation of quantity.

7.12 TECHNICAL SPECIFICATION FOR WIRING SYSTEM

7.2.1 SCOPE

This specification covers supply of materials, erection and commissioning of distribution wiring, connection to distribution boards, cable laying, earthing and miscellaneous items. Applicable provisions and conditions of contract shall govern the work under the section.

7.2.2 GENERAL

Work to be provided for by the Contractor, unless otherwise specified, shall include but not be limited to the following:

Furnishing of labour, materials, supports, scaffolds, transportation, etc required for the work.

1. To provide all incidental items not shown or specified in particular but reasonably be implied or necessary for successful completion of the work in connection with the drawings, specification and schedule of items.
2. To provide all supervision for proper execution of the work.
3. To conduct and bear all costs in respect of any test advised.
4. After completion of supply and installation of wiring system and earthing, if any defect in the material or workmanship is found by the Engineer-in-Charge, the contractor shall remove the same and supply better and approved materials at his own cost.
5. All precaution against theft and fire shall also be taken by the contractor.

7.2.3 MATERIALS

All materials used in the work shall be ISI approved quality and, in its absence, conforming to the IS Specification.

7.2.4 WIRING SYSTEM

The electric load of all lights, power outlets, etc. Shall be balanced across the three phases.

Generally, the final loading of any sub-circuit for lights and fans shall not exceed 800 watts and shall not be connected to more than total 10 fans, lights, socket outlets, etc. Bell push if operated at low voltage shall be fed from a separate circuit of distribution board.

The 16 Amps sub-circuit for power shall be connected to a maximum one 16 Amp. Socket outlet or two 6 Amp. Socket outlets.

A power circuit shall always be originating from a distribution board or MCB DB and the same shall run in a separate conduit.

The point wiring shall mean wiring from one way of distribution board to point of utilization of electricity i.e. where the load is applied and this shall include complete wiring from distribution board, supply and fixing of switch board, controlling switches, ceiling rose, batten holder and socket outlet, etc.

Insulated or covered earthing conductors where used, shall have green insulation braiding or covering as appropriate. Under no circumstances shall the colour green be used for other than earthing conductor. In addition, where it is required, cables of different colours be used. For identification purposes the following system shall be employed:

Red or any colour (other than black or green)	For phase or switch wire
Black	For Neutral
Green	For earth

Unless otherwise mentioned in the schedule of quantities, single way porcelain/ Bakelite terminal connectors with nickel plated brass inserts and screws to suit the conductor size shall be used for intermediate wiring/ joints in junction boxes and in switch boards or by any other method approved by the Engineer-in-Charge.

Distribution wiring in conduit to light, fan, plug points etc. Shall be done in looping in system. In this system, no joints or connections shall be made anywhere of the system except at terminating points such as, at terminals of switches, ceiling roses, etc. and in case of socket outlets, at the socket terminals. Intermediate wiring joints of neutral wire in junction boxes will not be permitted.

In the looping back system of wiring on hard wood batten, the wiring shall be done without any junction or connector boxes on the line. All intermediate joints or connections shall be made in the switch board only. Intermediate wiring joints of neutral wire in the junction box will not be permitted.

7.2.5 CONDUIT WIRING

All conduits shall be ISI marked and finished with Rigid PVC conduit of medium duty. All conduit accessories shall be conforming to IS specifications. Conduit less than 20mm in diameter shall not be used. The heavy duty GI saddle shall be fixed at an interval of not more than 750 mm apart for vertical run and 500 mm apart for horizontal run in surface wiring.

Where specified, PVC conduit conforming to IS specifications shall be used. The thickness of PVC conduit shall be adequate to withstand mechanical injuries. PVC conduit accessories conforming to IS specifications shall be used along with PVC conduit.

The entire conduit system shall be effectively earthed by means of suitable earthing conductors and the resistance from any point to earth shall not be more than one OHM.

7.2.6 CONCEALED WIRING

This system of wiring shall comply with all the requirements of surface conduit wiring system specified in Causes 5.1 to 5.6 in addition to the following points:

Making of chase: The chase in the wall shall be filled up neatly made and be of ample dimensions to permit the conduit to be fixed in the manner desired. In case of buildings under construction, chases shall be provided in the wall, ceiling etc. at the time of their construction and shall be filled up neatly after erection of conduit and brought to the original finish of the wall.

Fixing of conduit in chase: The conduit in chase in the wall shall be fixed by means of staples or by means of saddles not more than 60 cm apart. Fixing of standard bends or elbows shall be avoided as far as practicable and all curves maintained by bending the conduit pipe itself with a long radius which will permit easy drawing of PVC insulated wires.

Inspection boxes: Suitable inspection boxes shall be provided to permit periodical inspection and to facilitate removal of wires, if necessary. These shall be provided with inspection box covers.

Types of accessories to be used: All outlets, such as switches, wall sockets, etc. are flush mounting type.

The outlet box shall be mounted flush with the wall. The metal box shall be effectively earthed with conduit by an approved means of earth attachment.

Fish wire: 1 x 18 SWG G.I. wire inside the conduit and accessories to be provided with an extension of 250 mm at both the conduit ends.

7.2.7 WIRES

Unless otherwise mentioned in the schedule of quantities, only single core PVC insulated / PVC insulated & sheathed cable consisting of multistrand / flexible copper conductor and of approved manufacturers conforming to relevant I.S. shall be used for wiring in conduit system.

The maximum number of wires drawn in one conduit shall not be greater than the recommended number given in the Table – 1 given in this section.

7.3 INSTALLATION AND WIRING OF DISTRIBUTION BOARD/ MCB DISTRIBUTION BOARD.

Where fixing of Distribution board/ MCB DB will be of concealed type, the chase in the wall shall be neatly made and be of ample dimensions to permit the DB to be recessed in wall and flushed with finished wall surface.

The cable / wires shall be connected to the terminal only by soldered or crimped lugs, unless the terminal is of such a form that it is possible to securely clamp them without cutting away of cable strands.

All bare conductors shall be rigidly fixed in such a manner that a clearance of at least 25 mm is maintained between conductors and material other than insulating material.

7.3.1 EARTHING

All non-current carrying metallic part of various electrical equipment as well as cable armouring, metallic conduit, cable racks/ trays, brackets, supporting structures, etc. shall be effectively earthed by not less than two separate and distinct earth connection in accordance with Indian Electricity Rules, and the relevant Indian Code of Practice for earthing.

7.3.2 WORKMANSHIP AND INSTALLATION WORK

The workmanship shall be of good commercial quality and all supply material and installation work shall be completed to the full satisfaction of the Consultant/ Engineer-in-Charge.

7.3.3 SWITCHES

Light and fan switches shall be rated for 6 amp. 250 volts and of modular type and suitable for flush mounting on GI steel box with modular plate (manufactured by switch manufacturer). The switches shall be of approved make & acceptable to the Consultant/ Engineer-in-Charge. The switches shall comply with relevant I.S.

7.3.4 SOCKET OUTLET AND PLUG

These shall be of 3 pin type and of rating 6 amps (for light) and 16 amps. (for power). Each socket outlet shall be complete with controlling switch and plug top. Protective fuse links shall be provided with 16 amps. power socket outlet. The socket outlets shall have modular type switches of approved make and acceptable to the Consultant / Engineer-in-Charge. The socket outlet and plug shall comply with the relevant I.S. specifications.

7.3.5 SWITCH BOXES

Sheet metal (16 SWG) GT switch boxes of factory fabricated flushed in wall by housing the box after cutting brick wall. Sheet metal boxes shall be treated against corrosion by passivation or other approved method.

7.3.6 MANUFACTURER'S DRAWING

The successful tenderer shall submit for approval General arrangement and dimensioned drawings for Power and Lighting distribution switch board, Miniature circuit breaker distribution board, Distribution board, Interlocked Switch socket outlets, Clock switch control panel, T P Power Cable junction box and cable rack etc. as required in three sets before commencing manufacture.

7.3.7 WORKMANSHIP AND INSTALLATION WORK

The workmanship shall be of good commercial quality and all supply materials and installation work shall be completed to the full satisfaction of the Consultant/ Engineer-in-Charge.

7.3.8 CONTRACTORS RATE TO INCLUDE

Apart from other factors mentioned elsewhere in this contract, the rates for the above shall include for the following:

1. All labour, materials, tools and construction equipment required for fabricating and fixing of above stated items.
2. Scaffolding including erection and removal.
3. Making good of all damaged civil work, if any.
4. Necessary modification of pre-laid conduit including supply & fixing of Metal/ PVC conduits and accessories, chase cutting, etc. as required to complete the work.



**Reserve Bank of India
Estate Department
Bengaluru**

**Electrical Installation Work in connection with Renovation of
Five Class III Flats in Bank's Staff Quarters at RPC Layout, Bengaluru**

Schedule of Quantities

Sl. No	Description	Qty	Rate	Amount
1.	Supply, installation, testing and commissioning of 1Phase 12way MCB DB double door factory fabricated in concealed manner complete comprising of following MCBs(1) 32 Amps DP MCB-1No as incomer ,32A ELCB-1No 30ma Outgoing: (2)25A SPMCB-1 No (3)20A/10A/6A SP MCBs – 7nos.	05 sets		
2.	Supply, installation, testing and commissioning of wiring for light, ceiling fan, exhaust fan, call bell point using 3 X 1.5 sq. mm. 1100 Volt grade insulation multi-stranded copper conductor PVC FRLS insulated wire, in suitable dia. ISI mark medium duty PVC conduit with required accessories like Bends, Tees, Junction boxes etc., in concealed manner and ceiling rose/ connector/angle holder in junction box. Connections for fittings also shall be made with flexible wires etc. Point wiring for light/fan/exhaust fan/bell with 1.5 sq.mm FRLS copper wire in PVC conduit ,6A 1way modular switch, plate, metal box complete.	100 Nos		
3	Wiring as per item no.2 but for 2-way light point	10 Nos		
4.	Supply and fixing of 6 Amp 2/3 Pin switch socket on existing switch board with modular Plate, switch& socket complete. (Half Point)	35 Nos		
5.	Supply and fixing of 6 Amp switch and one 2/3 Pin socket point complete with modular plate, metal box in concealed manner	15 Nos		

6.	Supply and fixing of Three 6 Amp switches & Three 2/3 Pin socket complete with modular plate, metal box etc. in concealed manner.	10 Nos		
7.	Supply and fixing of 6A/16A modular type switch and socket with modular plate, metal box in concealed manner.	15 Nos		
8.	Supply and fixing of 16A modular type switch with modular plate, metal box in concealed manner.	05 Nos		
9.	Supply and fixing of 6A/16A modular type socket with modular plate, metal box in concealed manner.	05 Nos		
10.	Supply and fixing of 25A modular type socket with MCB switch with modular plate, metal box in concealed manner.	05 Nos		
11.	Supply and laying of 2x2.5 sq.mm and 1x1.5 sq.mm multi strand copper wire in suitable size of PVC conduit in concealed manner.	450 Mtrs		
12.	Supply and laying of 2x4.0 sq.mm and 1x2.5 sq.mm multi strand copper wire in suitable size of PVC conduit in concealed manner.	275 Mtrs		
13.	Supply & Providing wiring for telephone point from JB located at respective flat with two pair 0.5 mm. copper conductor PVC insulated PVC sheathed telephone cable in suitable dia ISI mark PVC conduit Rate shall include for providing of 1 No modular telephone socket with required size GI box concealed in wall.	05 Nos		
14.	Supply & Providing TV cable point with modular type TV sockets fixed on GI box concealed in wall with TV cable.	05 Nos		
15.	Supply and fixing of socket type modular electronic regulators for ceiling fans in the switch boards for ceiling fan.	15 Nos		
16.	Supply & fixing of calling Bell	05 Nos		
	Supply & Fixing of following light fittings			
17.	20w LED light tube light fittings	20 Nos		
18.	5W LED light fitting	20 Nos		
19.	Bracket light fitting	15 Nos		
20.	1200mm high speed ceiling fan without regulator	15 Nos		
21.	300mm cabin fan	05 Nos		
22.	150mm (6") size modular type exhaust fan	10 Nos		

23	300mm (12") size metallic type exhaust fan	5 Nos		
24.	Carefully dismantling of the existing wiring, DB, switches, sockets, switch boards, light fittings, fans and exhaust fans and handover the same to Bank	05 Job (Per flat)		
	Total			
	GST @ 18%			
	Grand Total			
25.	Rebate for take-out of the old wiring, old fittings, old DBs, old fans and old switches and boards.	05 Job (per flat)		
	Total after buyback value			

Place:

Signature and Seal of the Contractor

Date: