



**Reserve Bank of India  
Estate Department  
Bhubaneswar**

**Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building,  
Bhubaneswar**

**e-Tender No: RBI/Bhubaneswar Regional Office/Estate/ 38/25-26/ET/738**

**Part I (Techno-Commercial bid)**

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### **Disclaimer**

Reserve Bank of India, Bhubaneswar (the Bank) has prepared this tender document. The information is provided to prospective Bidders to enable them to bid for **Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar.**

This tender is neither an agreement with any party, nor invitation to any party to perform work of any kind. The purpose of this tender is to share requirements of the Bank with all interested parties in order to enable them to submit their Bid. **While the Bank has taken due care in the preparation of the information contained herein, the Bank does not claim that the information is exhaustive. Respondents to this tender are required to make their own inquiries and they should not rely solely on the information in tender. The Bank is not responsible if no due diligence is performed by the Respondents.** The Bank reserves the right not to proceed with this tender, to alter the timetable reflected in this document, to update scope of work or to change the process or procedure to be applied. It also reserves the right to decline to discuss the tender further with any respondent. No reimbursement of cost of any type or on any account will be paid to persons or entities submitting their Bid.

### **SCHEDULE OF TENDER (SOT)**

Name of the work	Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar
a. e-Tender no	RBI/Bhubaneswar Regional Office/Estate/ 38/ 25-26/ET/738
b. Mode of Tender	e-Procurement System (Online Part I - Techno-Commercial Bid and Part II - Price Bid through <a href="http://www.mstcecommerce.com/eprocn">www.mstcecommerce.com/eprocn</a> )
c. Estimated Amount of the Work	<b>₹ 9,79,637/- including GST</b>
d. Date of NIT available to parties to download (Notice for Inviting Tender)	December 19, 2025 from 18:00 Hrs.
e. Date and place of Pre-Bid meeting	December 26, 2025 at 11:00 Hrs. at Estate Department, Second floor, RBI, Bhubaneswar
f. Date of placing minutes of the pre-bid meeting on RBI website	December 26, 2025 by 14:00 Hrs.
g. Date of Starting of e-Tender for submission of online Techno-Commercial Bid and price Bid at <a href="http://www.mstcecommerce.com/eprocn">www.mstcecommerce.com/eprocn</a>	December 26, 2025 from 14:00 Hrs.
h. Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid	January 02, 2026 up to 14:00 Hrs.
i. Date & time of opening of Part-I (i.e., Technical Bid) Part-II Price Bid: Date of opening of Part II i.e., price bid shall be informed separately	January 02, 2026 at 14:30 Hrs.
j. Transaction Fee	As charged by MSTC Ltd. Payment of transaction fees will be paid online through MSTC payment gateway.
k. Date & time of opening of Part- II (Financial Bids)	Shall be intimated to all Contractors later after scrutiny of Techno – Commercial bid
l. Validity of the tender	90 days from the date of opening of Techno – Commercial bid
m. Time for Completion	<b>50 days</b> from the 14 <sup>th</sup> date of issue of work order



**RESERVE BANK OF INDIA  
ESTATE DEPARTMENT  
BHUBANESWAR**

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**Reserve Bank of India  
Estate Department  
Bhubaneswar**

**Section A**

**NOTICE INVITING e-TENDER**

**Name of the work: “Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar”**

Reserve Bank of India, Bhubaneswar invites e- tenders for the captioned work from Bank's empaneled vendors/contractors under the said category of the work costing 2-10 Lakh. The tendering would be done through the e-Tendering portal of MSTC Ltd (<https://www.mstcecommerce.com/eprocn>). All interested empaneled vendors /contractors must register themselves with MSTC Ltd through the above-mentioned website to participate in the tendering process.

- 1. The tender document along with all the requisite declarations, documents & annexures should be signed and uploaded in the Part-I of the tender.** Part-II of the tender will contain no conditions but Contractor's Price Bid, Bank's Schedule of quantities, tender drawings, if any, only.
- 2. Part-I and Part-II of the tenders will be submitted by the Contractors in MSTC portal. The same will be opened by RBI on January 02, 2026, at 14:30 Hrs. Those contractors who would like to depute their representatives, may depute their representatives to Estate Department, Reserve Bank of India, 2nd Floor, Pt. Jawaharlal Nehru Marg, Bhubaneswar 751001 for the same. Part II of the tender will be opened later. Due intimations will be given for the same.**
- 3. The Bank is not bound to accept the lowest tender and reserves the right to accept either in full or in part any tender. The Bank also reserves the right to reject all the tenders without assigning any reason there for.**
- 4. Regional Director, Reserve Bank of India, Bhubaneswar, reserves the right to accept or reject any or all Bids without assigning any reasons and also reserves the right to relax any of the terms and conditions. No Contractor shall have any cause of action or claim against the RBI for rejection of his Bid.**

**The Schedule of e-Tender is as follows:**

Name of the work	Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar
a. e-Tender no	RBI/Bhubaneswar Regional Office/Estate/38/25-26/ET/738
b. Mode of Tender	e-Procurement System (Online Part I - Techno-Commercial Bid and Part II - Price Bid through <a href="http://www.mstcecommerce.com/eprocn">www.mstcecommerce.com/eprocn</a> )
c. Estimated Amount of the Work	<b>₹ 9,79,637/- including GST</b>
d. Date of NIT available to parties to download (Notice for Inviting Tender)	December 19, 2025 from 18:00 Hrs.
e. Date and place of Pre-Bid meeting	December 26, 2025 at 11:00 Hrs. at Estate Department, Second floor, RBI, Bhubaneswar
f. Date of placing minutes of the pre-bid meeting on RBI website	December 26, 2025
g. Date of Starting of e-Tender for submission of online Techno-Commercial Bid and price Bid at <a href="http://www.mstcecommerce.com/eprocn">www.mstcecommerce.com/eprocn</a>	December 26, 2025 from 14:00 Hrs.
h. Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid	January 02, 2026 up to 14:00 Hrs.
i. Date & time of opening of Part-I (i.e., Technical Bid) Part-II Price Bid: Date of opening of Part II i.e., price bid shall be informed separately	January 02, 2026 at 14:30 Hrs.
j. Transaction Fee	As charged by MSTC Ltd. Payment of transaction fees will be paid online through MSTC payment gateway.
k. Date & time of opening of Part- II (Financial Bids)	Shall be intimated to all Contractors later after scrutiny of Techno – Commercial bid
l. Validity of the tender	90 days from the date of opening of Techno – Commercial bid
m. Time for Completion	<b>50 days</b> from the 14 <sup>th</sup> date of issue of work order

Amendments / Corrigendum to the tender, if any, issued in future will only be notified on the RBI Website and MSTC Website as given above and will not be published in the newspaper. **As this is an E-tender, the rates shall be submitted only in online mode and not to mention the rates on any other documents, otherwise the bid shall be rejected.**

**This notice is being published for information only and is not an open invitation to quote in this limited tender. Participation in this tender is by invitation only and is limited to the selected Procuring Entity's enlisted contractors. Unsolicited offers are liable to be ignored. However, contractors who desire to participate in such tenders in future may apply for enlistment with RBI as per procedure.**

This tender document has been published in English and Hindi. If Hindi translation of this tender document conflicts with the English version or contains terms in addition to or different from the English version, the English version shall prevail.





**RESERVE BANK OF INDIA  
Estate Department  
Bhubaneswar**

**Section B**

**Important Information**

**Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**

1.e-Tenders are invited in two Parts for “**Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**. The work is estimated to cost **₹9,79,637/- including GST** and is to be completed **within 50 days from the 14<sup>th</sup> date of issue of work order**.

2. Tender forms can be downloaded from MSTC portal from 18:00 Hrs. on date December 19, 2025.

3. The tenders for the above work in two parts i.e., Part-I containing technical specifications and the terms & conditions (Rates and amounts of items shall not appear anywhere in this part) and Part-II containing only rates of items **shall be filled on the MSTC portal, not later than 14:00 Hrs. on January 02, 2026, Part-I of the tenders will be opened on the same day at 14:30 hrs. Part-II of the tenders will be opened on a subsequent date under intimation to the Contractors.** Contractors are advised not to use any other forms on their own letterhead or otherwise for furnishing any information/rates/amount etc. All the information called for shall be complete in all respects. No enclosure is permitted in Part-II of the tender. Incomplete tenders or tenders not complying with the requirement and any mention of price bid in the part-I of the tenders are liable for rejection.

4. Before submission of tender, the contractor may inspect the site in person on any working day from Monday to Friday between 10:00 a.m. and 5:00 p.m. to study and understand the scope of works specified.

5. The tender of Part I shall be **opened in the** presence of the Contractors or their representatives who choose to be present **at 14:30 hours on January 02, 2026**, and Price bid (Part II) of such of those tenders who are found eligible after scrutiny of their Part I of the tenders will be opened on a subsequent working day which will be intimated to all the eligible Contractors.



**RESERVE BANK OF INDIA**  
**Estate Department**  
**Bhubaneswar**

**Section C**  
**Form of Tender**

The Regional Director  
Reserve Bank of India  
Bhubaneswar

Dear Sir,

We have carefully examined the specifications, designs and schedule of quantities relating to the works specified in the memorandum hereinafter set out and have visited and examined the installation site of the works specified in the said memorandum and have acquired the requisite information relating thereto as affecting the tender. We hereby offer to execute the works specified in the said memorandum within the specified time, at the rates mentioned in the attached Schedule of Quantities and in accordance in all respects with specifications, designs and instructions in writing referred to in articles of agreement, general instructions to the tenderers and special conditions, conditions hereinbefore referred to, specifications, schedule of works, data sheet and schedule of quantities and with such materials as are provided for, by and in all other respects, in accordance with such conditions so far as they may be applicable.

**MEMORANDUM**

(a)	Description of works	Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar
(b)	Estimated cost	₹9,79,637/- (including GST)
(c)	Time allowed for completion of work from the 14 <sup>th</sup> date of issue of work order	50 days

Having examined the above Memorandum of work (and other details of the work to be executed) and having acquired the requisite information relating thereto as affecting the tender, I/We hereby offer to execute the works specified in the said Memorandum within the time specified in the said Memorandum at the rates specified in the price bid and as per the specifications of the Bank.

The designated pages of the tender document have been signed for having acquainted myself /ourselves of the conditions of the contract.

Should this tender be accepted, I/We hereby agree to abide by the terms and Conditions of the Bank in this regard.

In case, I/We fail to execute the contract, I/We do hereby agree that this sum shall be forfeited by me/us to the Reserve Bank of India.

Our Bankers are:

i) \_\_\_\_\_  
\_\_\_\_\_

ii) \_\_\_\_\_  
\_\_\_\_\_

Name(s) and address(s) of our Company Proprietor/ Partners of the firm are:

i) \_\_\_\_\_

ii) -----

iii)

iv) -----

For and behalf of M/s

\_\_\_\_\_

Signature with seal of the partner of the firm

Name:

Designation

Place

Date

(Certified true copy of the Power of Attorney of the above signature should be enclosed

## Section D

### Important instructions for E-procurement

This is an e-procurement event of RBI. The e- procurement Service Provider/Contractor is the MSTC Limited.

You are requested to read and understand the Notice Inviting Tender and subsequent corrigenda if any, before submitting your online tender.

#### **Process of E-tender:**

**A) Registration:** The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Techno-Commercial Bid as well as Price Bid over the internet will be done. The Vendor should possess Class III signing and encryption type digital certificate. Vendors are to make their own arrangement for bidding from a P.C. connected with Internet. RBI is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

#### **SPECIAL NOTE: THE PRICE BID AND THE COMMERCIAL BID HAS TO BE**

#### **SUBMITTED ON-LINE ONLY AT [www.mstcecommerce.com/eprocn/](http://www.mstcecommerce.com/eprocn/) (Version 3)**

1) Vendors are required to register themselves online with [www.mstcecommerce.com/eprocn](http://www.mstcecommerce.com/eprocn)

Register as Vendor -- Filling up details and creating own user id and password Submit. For further details, go to Download Guide / Video / Registration

Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form. In case of any clarification, please contact MSTC/ RBI, (before the scheduled time of the e- tender).

#### **Contact details:**

##### **a) Contact person (MSTC) For Vendors:**

HO Central Help Desk: (For vendors)

Phone Number :07969066600

[helpdeskho@mstcindia.in](mailto:helpdeskho@mstcindia.in) (Please mention "HO Helpdesk" as subject while sending emails)

Availability

9:30 AM to 5:00 PM on all working days for all technical issues e-Tenders, System settings etc.

##### **b) Contact person (MSTC)**

Please visit [www.mstcindia.co.in/content/Contact.aspx](http://www.mstcindia.co.in/content/Contact.aspx)

Contact Person	Mail	Mobile
Shri Mahesh Ramavath	<a href="mailto:rmahesh@mstcindia.co.in">rmahesh@mstcindia.co.in</a>	8801281004
Help Desk/ Office	<a href="mailto:helpdesk@mstcindia.co.in">helpdesk@mstcindia.co.in</a>	0674-2544199/ 2950091

**c) Contact person at RBI (RO/TE)**

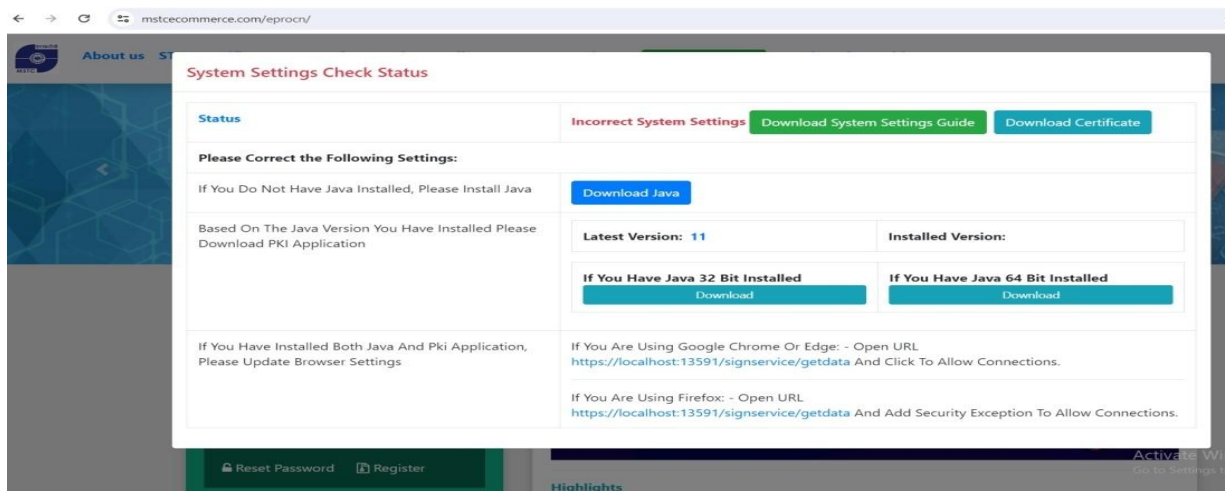
Shri Prem Shankar Konapala, AGM – premshankark@rbi.org.in (Mobile – 8074376753)

Shri Subhash Govind Pawar, Manager (T-E) – subhashpawar@rbi.org.in (Mobile – 9958969919)

Shri Aakoju Sravan Kumar, AM – asravankumar@rbi.org.in (Mobile – 8247400250)

**1. System Requirement:**

For details, vendor may refer to the **DOWNLOAD SYSTEM SETTING GUIDE** available <https://www.mstcecommerce.com/eprocn/>



i) Windows 7 or above Operating System

ii. Edge/Google Chrome

iii) Signing type digital signature iv) Latest updated JRE 8 (x86 Offline) software to be downloaded and installed in the system.

To disable “Protected Mode” for DSC to appear in The signer box following settings may be applied.

• Tools => Internet Options => Security => Disable protected Mode If enabled- i.e, Remove the tick from the tick box mentioning “Enable Protected Mode”. • Other Settings:

Tools => Internet Options => General => Click On Settings under “browsing history/Delete Browsing History” => Temporary Internet Files => Activate “Every time I Visit the Webpage”.

To enable ALL active X controls and disable ‘use pop up blocker’ under

Tools→ Internet Options→ custom level (Please run IE settings from the page [www.mstcecommerce.com](http://www.mstcecommerce.com) once)

**2. Special Note towards Transaction fee:** The vendors shall pay the transaction fee using “Transaction Fee Payment” Link against the specific tender in the “Bid Floor”/through the “Pay Transaction fee” in “Event catalog” through their login. Service Provider / Contractor / Vendor shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, Service Provider / Contractor / Vendor shall generate a challan by filling up a form. Service Provider / Contractor / Vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. On selecting Online Payment, Service Provider / Contractor / Vendor shall have the provision of making payment using its Credit / Debit Card / Net Banking. Once the payment gets

Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar

credited to MSTC's designated bank account, the transaction fee shall be auto authorized.

**Transaction fee is non-refundable.** A vendor will not have the access to online e- tender without payment of the transaction fee.

**NOTE:** Bidders are advised to remit the transaction fee well in advance before the closing time of the event so as to give themselves sufficient time to submit the bid.

**3.** Information about tenders / corrigenda shall be sent by email only during the process till finalization of tender. Hence the vendors are required to ensure that their corporate email I.D. provided is valid and updated at the time of registration of vendor with the MSTC Ltd. Vendors are also requested to ensure validity of their class III signing and encryption type of DSC (Digital Signature Certificate).

**4.** E -tender cannot be accessed after the due date and time mentioned in NIT (Notice inviting tender)

**5. Bidding in E-tender:**

Note: Vendors are instructed to use ***Upload Documents*** link in My menu to upload documents in document library. Multiple documents can be uploaded. Maximum size of single document for upload is 5 MB.

Once documents are uploaded in the library, vendors can attach documents through ***Attach Document*** link against the particular e-Tender. Please note that if the documents are not attached to any e-Tender, the same cannot be downloaded by RBI and it will be deemed that the vendor has not submitted the documents. For further assistance please follow instructions of vendor guide.

- a) Bidder(s) need to submit necessary E-Tender fees (If ANY) and Transaction fee separately for the e-tender. Transaction fees if any are non-refundable.
- b) The process involves Electronic Bidding for submission of Techno Commercial Bid as well as Price Bid.

The bidder(s) who have submitted the above fees can only submit their Techno Commercial Bids and Price Bid through internet in MSTC website **www.mstcecommerce.com** → e-procurement → New Common Portal → Bid Floor Manager→ live event → Selection of the live event→ Transaction fee->Common terms->Attach Documents->Price Bid.

Please Note: The vendor after successful remittance of the transaction fees details, will get the attach documents and common terms tab enabled in their login. Post successful completion of this step, the vendors will be allowed to save the lot specific terms and submit their price bid against the lot through the portal or download and upload the excel file for submitting price bids, as the case may be. In case the attach documents and/or saving common terms step is unsuccessful, the tabs for saving lot specific terms and submitting price bid would be disabled. The status of whether the same is successful/pending would be displayed in the bid status button.

- c) First the vendor needs to fill up the Commercial specification if any and save it. Then the vendor should fill up the Techno-commercial bid. After filling the Techno-Commercial Bid, bidder should click 'save' for recording their Techno-Commercial bid. Once the same is done, the Price Bid link becomes active and the same has to filled up and then bidder should click on "save" to record their price bid. Then once both the Techno-Commercial bid & price bid has been saved, the bidder can click on the "Final Submission" button to register their bid

**NOTE:** - After clicking the final submission “Delete bid” option would be shown. If the vendor wants to delete the bid after final submission and re submit the bid, then he/she should click delete bid and resubmit the same and again click final submission.

- d) In all cases, bidder should use their own ID and Password along with Digital Signature at the time of submission of their bid.
- e) During the entire e-tender process, the bidders will remain completely anonymous to one another and also to everybody else.
- f) The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.
- g) All electronic bids submitted during the e-tender process shall be legally binding on the bidder. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by the Buyer will form a binding contract between Buyer and the Bidder for execution of supply/work. Such successful tenderer shall be called hereafter **SUPPLIER/CONTRACTOR**.**
- h) It is mandatory that all the bids are submitted with class III signing and encryption type of digital signature certificate otherwise the same will not be accepted by the system.
- i) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part without assigning any reason thereof.
- j) No deviation of the terms and conditions of the e-Tender document is acceptable. Submission of bid in the e-tender floor by any bidder confirms his acceptance of terms & conditions for the e-Tender.

Unit of Measure (UOM) is indicated in the e-tender Floor. Rate to be quoted should be in Indian Rupee as per UOM indicated in the e-tender floor/tender document.

## Section E

### **GENERAL INSTRUCTIONS TO CONTRACTORS & SPECIAL CONDITIONS**

**1.1** e-tenders in two parts are invited for **Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**. The work is estimated to cost **₹9,79,637/- including GST** and is to be completed within **50 days** from the 14<sup>th</sup> date of issue of work order.

**1.2** The tenders for the above work in two parts i.e., **Part-I** containing technical specifications and the terms conditions (Rates and amounts of items shall not appear anywhere in this part) and **Part-II** containing only rates of items shall be submitted on MSTC portal not later than **14:00 hrs. on January 02, 2026**. Part-I (Techno commercial bid) of the e-tenders will be opened on the same day at **14:30 Hrs.** **Part-II of the eligible qualifying tenders will be opened on a subsequent date under intimation to all the Contractors.** Contractors must apply for the e-tender only through MSTC portal and not to use any other forms on their own letterhead or otherwise for furnishing any rates/amount etc. All the information called for shall be complete in all respects.

No enclosure is permitted in Part II of the tender. Incomplete tenders or tenders not complying with the requirement are liable for rejection.

Tenders shall remain open to acceptance by the Bank for a period of three months from the date of opening Part-I of the Tender which period may be extended by mutual agreement and the Contractor shall not cancel or withdraw the Tender during this period.

- a. No advice of any change in rate or conditions after the opening of Part II of the tender will be entertained.
- b. Each of the tender documents should be signed by the person or persons submitting the tender in token of his/their having acquainted himself/themselves with the General Conditions of Contract, Specifications, and Special Conditions etc. as laid down.
- c. The Contractor submitted on behalf of a firm shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract, otherwise the tender may be rejected by the bank.
- d. The Reserve Bank of India does not bind itself to accept the lowest or any tender and reserve to itself to accept or reject any or all the tenders either in whole or in part, without assigning any reasons for doing so.

**1.3** On receipt of intimation from the Bank of the acceptance of his/their tender, the successful Contractor shall be bound to implement the contract and within 14 days thereof the successful Contractor shall sign an agreement in accordance with the draft agreement and the Schedule of Conditions but the written acceptance by the Reserve Bank of India of a tender will constitute a binding contract between the Reserve Bank of India and the person so tendering whether such formal agreement is or is not subsequently executed.

**1.4 Retention Money (RM):** Retention Money @ 5% will be deducted from each bill and retention money shall be released after satisfactory completion of defect liability period (DLP) of one year. The amount retained by the Bank shall not bear any interest.



**1.5** All compensation or other sums of money payable by the Contractor to the Bank under the terms of this Contract may be deducted from his/her earnest money and the security deposit if the amount so permits and the contractor shall, unless such deposit becomes otherwise payable, within fourteen days after such deduction make good in cash the amount so deducted.

**1.6** The Contractor shall carry out all the work strictly in accordance with drawings, details and instructions of the Bank's Engineer. The bidders are requested to check all the drawings, if any related to this work, which are available at Estate Department, Bhubaneswar Office, before submission of the tender.

**1.7** The rates quoted shall be firm and shall not be subjected to variations in exchange rate, rate of taxes, duties, levies or variation in labour rates. The rates shall be quoted for complete work and shall include charges for all taxes, duties, levies, consumables, labour, transport, insurance for transit, cess under BOCW & BOCWWC act, storage as also workmen compensation & 3rd party liability policies, execution & handover the executed work to the Bank. No concessional form for any taxes, duties and levies will be issued by the Bank. Similarly, no import license will be issued by the Bank. All payments will be made at Bhubaneswar and will be in Indian rupees only. The Contractors are advised to include the GST in the quoted amount.

**1.8** Contractors are advised to quote strictly as per BOQ. The schedule of quantities is based on probable quantities. The Contractor should note that unless otherwise stated the tender is strictly on item rate basis and his attention is drawn to the fact that rates for the Schedule of Quantities approximately indicate the total extent of work but may vary to each and every item should be correct, workable and self-supporting. The quantities up to any extent and may even be omitted depending upon the site conditions and requirements solely at the discretion of the Bank thus altering the aggregate value of the Contract. No claim shall be entertained on this account.

**1.9** The Contractor must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making a tender and for entering into a contract and must examine the Drawings (which are available at Estate Department) and must inspect the site of the work and acquaint himself with all local conditions, means of access to the work, nature of the work and all matters pertaining thereto.

**1.10** Time allowed for carrying out the work as mentioned in the Memorandum shall be strictly observed by the Contractor and it shall be reckoned from the 14<sup>th</sup> date of written order to commence the work is issued. The work shall throughout the stipulated period of the Contract be proceeded with all due diligence and if the Contractor fails to complete the work within the specified period, he/she shall be liable to pay compensation as defined in clause 1.23 of Section G of the tender document.

**1.11** The Contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing of the work, whatever the cause of delays may be, including delays arising out of modifications to the work entrusted to him or in any sub-contract connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such works or in procuring Government controlled or other building materials or in obtaining water and power connections for construction purposes or for

any other reason whatsoever and the Bank shall not be liable for any claim in respect thereof. The Bank does not accept liability for any sum besides the tender amount, subject to such variations as are provided for herein.

**1.12** The successful Contractor is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the quantities and rates. Schedule of instructions in respect of such additional items and their quantities will be issued in writing by the Architect with the prior consent in writing of the Bank.

**1.13** The successful Contractor must co-operate with the other contractors appointed by the bank so that the work shall proceed smoothly with the least possible delay and to the satisfaction of the Bank.

**1.14** The Contractor must bear in mind that all the work shall be carried out strictly in accordance with Specifications made by the Architects and also in compliance of the requirements of the local public authorities and to the requirements.

**1.15 The successful Contractor shall submit a Bar Chart programme for completion of the work.**

**1.16** The successful Contractor shall execute an agreement with the Bank on stamped paper of appropriate value as per stamp act (Applicate to Odisha) within fourteen days of receipt of letter of acceptance. However, the issue of letter of acceptance by the Bank shall be construed as a binding contract, as though such an agreement has been executed and all the terms and conditions shall apply on this contract.

**1.17** The payment for the system will be made by Bhubaneswar Office at which the work has been undertaken. Any dispute arising out of this contract will also be sorted out within the jurisdiction of Bhubaneswar only.

**1.18** The Contractor shall furnish the name and address of the Bankers with whom they normally Bank. They shall also furnish the name and addresses of their recent clients for whom they have carried out similar works/supplies in the recent past, along with full details like the cost and capacity of the system/machine supplied, the date of the supply etc. This condition will not be applicable to Bank's empanel contractors.

**1.19** The Bank reserves the right to accept or reject any or all the tenders either in full or in part without assigning any reasons thereof.

**1.20** The Contractor shall strictly comply with the provision of safety code annexed hereto.

**1.21** The successful contractor shall submit the names and personal details of site in-charge/ supervisor and his authorized representative along with their role, responsibilities, and authority (with regard to supervision, quality control, documentation, measurements, signing measurement book, correspondence, receiving instructions from bank etc.) within 14 days from the date of issue of work order.

**1.22** The successful bidder shall submit a detailed bar chart indicating the details of various major

activities involved in the work and their expected completion period, specifying the parallel and sequential activities, starting from the scheduled commencement of work to complete the entire work within the tender specified period along with the Part-I of the tender. The bidders shall also indicate the approximate deployment of manpower/ labour, as planned by them for the above purpose, commensurate with the planned schedule. After award of work, the contractor shall be required to carry out micro planning and the detailed schedule/ Bar Chart shall be submitted within 10 days from the date of issue of work order for proper planning, monitoring and review of progress of work.

**1.23** The contractor shall maintain following registers/ documents at site and keep them updated on a regular basis. These registers/ documents after completion of work shall be handed over to the Bank:

- a) Hindrance register in the Bank's approved format
- b) Site instruction book
- c) Certified true copy of the contract

**1.24** The contractor shall use only approved brands of materials as given in the Section J of the tender document. In absence of any such choice indicated by the tenderer in the Part – I, the contractor will be required to use the material as per Bank's instructions.

**1.25** Wherever the basic rate for the material is specified, the contractor should furnish all the paid bills for Banks verification. The purchase rate shall be got approved from the Bank before purchasing. The adjustment in price shall be made only on measured quantity. No overhead and profit shall be considered on the cost difference. The basic prices are ex-godown and are inclusive of excise duty, sales tax, octroi and all other duties levied by Local authority / Government. The rate quoted shall include transportation to site, storing and handling etc.

**1.26** Bank will require the contractor to produce, samples of all the materials, accessories/finishes prior to procurement/manufacture. The Bank's Engineer shall approve samples of the materials for the work. Failure to comply with these instructions can result in rejection of the work.

I/We have understood all the above-mentioned conditions and they are acceptable to me/us.

Place:

Date:

Signature of Tenderer

Name:

Seal of the firm

### **SPECIAL CONDITIONS**

1. The workmen will not be allowed to stay within the premises.
2. The water required for the work or workmen can be availed from the available source at site free of cost. The Contractor has to tap the same from the point shown to them at their own cost.
3. The electric power required for the work can also be similarly drawn from the supply available at site free of cost. The Contractor has to tap the same from the point shown to them at their own cost.
4. Permission, if any, required from the local bodies shall be obtained by the Contractor at their cost.
5. Even though in finishing items, the number of coats of paint/polish are mentioned, the contractor shall note that the entire furniture be finished in top class while handing over, including if necessary, additional coat of painting/polishing etc. without any extra cost.
6. The intending tenderer can obtain any clarifications regarding the tender drawings, specifications etc. if any from the office of the Deputy General Manager, Reserve Bank of India, Estate Department, Bhubaneswar, on any Bank's working day.
7. The entire materials for the work shall be brought to the working area through the staircase. The delivery of materials shall be given on the floors specified in the tenders.
8. Wherever the basic rate for the material is specified, the contractor should provide to the Bank for verifications all paid bills of purchased materials for ascertaining the actual rate of purchase so as to settle the difference in cost of material. The rate shall be got approved from the Bank before purchasing. The adjustment in price of materials shall be made on measured quantity only. No overhead or profit shall be considered on the cost difference. The basic price for the materials shall be taken as the cost of material at dealer's godown inclusive of taxes.
9. The debris/dust or any wastage generated out of the above work shall be cleaned as frequently as required and as instructed by the Bank's Engineer away from the bank's premises.
10. The tenderer shall use only approved brand materials.
11. A qualified, experienced and responsible full time supervisor shall be posted at site who can receive instructions, maintain account of materials etc. take decisions at site, without waiting for the instructions of the contractor.
12. No lapses from the Contractors side, which may cause damage to the occupants.
13. The work has to be carried out with least inconvenience to the staff.
14. Programme should be submitted before commencement of work so as to enable the Bank to intimate the occupants in advance for smooth working and better progress and the time schedule should be strictly adhered to.
15. No labourers shall be permitted to stay inside the campus after working hours.
16. The Contractors has to obtain permission from the local authorities as per the existing local byelaws for such works and the charges/fees if any, has to be borne and paid by the contractor including water and draining charges.
17. The contractor should have valid Labour license from Labour Commissioner wherever the number of labourers engaged is 20 or more.
18. Works contract/ VAT shall be deducted as per instructions of Government at source. The rate quoted shall include all such taxes and levies.
19. The contractor shall have the addresses and photographs of their workmen being engaged by them for the said work. The entry of workmen will be allowed inside the building only on producing the photo pass issued by the Bank's Caretaker.

20. Before quoting the rates contractor should inspect the site and understand the nature and scope of the work for themselves.
21. Any damage cause to any of Bank's properties shall be made good by the contractor at their own cost.
22. The contractor shall carry out the work strictly in accordance with specification details and instructions of the Bank's Engineer.
23. The Contractor shall make their own arrangements for storing of their materials at site.
24. The Contractor shall keep the Bank indemnified against all claims, if any.
25. The contractor shall only use MS 'H' frame scaffolding.
26. The Contractor shall ensure payment of minimum wages to the workmen employed by him as per Central Labour Commissioner's rates and obtain their signature or thumb impression on wage slip. A copy of such wage slip shall be submitted to the Bank.
27. Successful contractor shall provide a proper uniform to their worker engaged on site for identification purpose.
28. Successful contractor shall post a qualified Engineer at site during execution that shall follow necessary instruction given by the Bank's Engineer from time to time including keeping proper record of chemicals and cement brought at site including maintaining the record of day to day consumption.
29. All taxes, levies, cess under BOCW & BOCWWC act, and cess including labour cess as may be applicable in respect of the contract shall be payable by the contractor and Bank shall not entertain any claim whatsoever in this respect.

**Place:**

**Date:**

**Signature of Tenderer with Seal**

## **Section F**

### **SAFETY CODE**

1. First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be 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 mazdoor shall be engaged for holding ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of trench of half of the depth of trench whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.
6. Every opening in the floor of a building or in a working platform 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 meter.
7. No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.
8. Workers employed on mixing and handling material such as asphalts, 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. (i) No paint containing lead or lead products shall be used except in the form of paste of readymade paint.  
(ii) Suitable facemasks 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.
11. Overalls shall be supplied by the Contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the periods of cessation of work.
12. Hoisting machines and tackle used in the works, 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.
14. To strictly follow health related protocol at work site as advised by authority/authorities.

### **ELECTRICAL SAFETY**

1. All the temporary electrical power for carrying out various services at site such as cutting / drilling machine shall be provided through properly rated earth leakage protection devices (ELCB).
2. Only ISI marked 3 pin plug and other appliances and equipment's shall be used.
3. Electrical power cables / wires used shall be properly rated and joints should be avoided. If there, the joint should be proper and insulated.
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.
6. Fire buckets filled clean dry sand and ready for immediate use for extinguishing fires, in addition to fire extinguishers suitable for dealing with fires, shall be conspicuously marked and kept at site at convenient location.
7. Personal protective equipment such as safety shoes, hand gloves, welder's mask, ear plugs, etc. as applicable depending upon the requirement of the work, shall be used by the workmen to prevent occupational health hazards.
8. The safety belt shall be used by the workmen while working from height for more than 10 feet from ground level.
9. None of the passages near lift lobby and staircases shall be used for stacking / dumping any kind of materials/waste.
10. Power supply shall be switched off from the Mains when equipment is not in use.
11. Wood-shavings, saw-dust or any debris generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
12. The work site shall be properly illuminated during the work.
13. All the electrical works should be carried out by licensed / authorized electricians / wiremen.
14. Portable battery-operated lights may be used at work site to avoid laying of temporary wire for lights.
15. Necessary barricading and signage boards of good quality shall be fixed at conspicuous locations at the work site.
16. Aluminum / steel ladders should have proper rubber insulation at the base and wherever required, these ladders shall be kept on electrical insulating safe rubber mats.

Place :

Date :

Signature of the tenderer with Seal

### **FIRE SAFETY**

- i. Cutting / drilling machine and other electrically operated equipment's used at site shall be plugged into correctly rated electrical outlets.
- ii. Only ISI marked 3 pin plug and other appliances and equipment's shall be used.
- iii. Electrical power cables/wires used shall not have any joints and shall be properly rated.
- iv. All electrical appliances i.e., welding, drilling, cutting machine etc. shall be safely and securely earthed to prevent leakage current while in operation.
- v. 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.
- vi. Two buckets of water and sand shall be kept in an easily accessible area on the site.
- vii. Fire extinguishers recommended and issued by fire officers shall be kept on the site.
- viii. Used paint drums shall be stored in specified store only after closing them properly.
- ix. Personal protective equipment's 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.
- x. 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.
- xi. None of the passages near lift lobby and staircases shall be used for stacking / dumping any kind of materials/waste.
- xii. Both the staircase doors shall be normally kept closed.
- xiii. None of the fire extinguishers shall be removed/shifted from its designated location.
- xiv. Power supply shall be switched off from the mains when equipment is not in use.
- xv. 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.
- xvi. Any debris generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
- xvii. Battery operated emergency light/torches shall be provided by the contractor to the workmen while working beyond office hours.

**Place:**

**Date:**

**Seal & Signature of the Tenderer.**

I/We hereby declare that we have read and understood the safety code of the tender and will fully abide by the same, should the work tender is awarded to me/us.

Place:

Date:

Signature & seal of the contractor





RESERVE BANK OF INDIA  
ESTATE DEPARTMENT  
BHUBANESWAR

**Section G**  
**Conditions of contract - commercial**

THE CONDITIONS HEREINBEFORE REFERRED TO

**1.1** Interpretation Clause

In construing these conditions, the Specifications, Schedule of Quantities and Contract agreement, the following words shall have the meaning herein assigned to them except where the subject of context otherwise required.

- (a) "Bank" shall mean the Reserve Bank of India, Bhubaneswar and shall include its assigns and successors.
- (b) "Contractor" (i) in the case of partnership shall mean \_\_\_\_\_ and \_\_\_\_\_ trading as partners in the names and style of \_\_\_\_\_ and having a place of business at \_\_\_\_\_ and shall include the partners for the time being of the said firm and legal representatives of a deceased partner (ii) in the case of individual shall mean Shri \_\_\_\_\_ trading in the name and style of \_\_\_\_\_ and shall include his heirs, successors and legal representatives (iii) in the case of company shall mean \_\_\_\_\_ a company incorporated under \_\_\_\_\_ 20\_\_\_\_ and having its registered office at \_\_\_\_\_ and shall include its successors and assigns.
- (c) "Site" shall mean the site of the Contract works including any building and erections thereon and any other land (inclusively) as aforesaid allotted by the Bank for the Contractor's use.
- (d) "This Contract" shall mean the Articles of Agreement, the Special Conditions, the Conditions, the Appendix, the Schedule of Quantities, Specifications, and Drawings, etc., attached hereto and duly signed.
- (e) Architect" shall mean General Manager/Deputy General Manager, Estate Department.
- (f) Bank's Engineer: The term "Bank's Engineer" shall mean the person appointed and paid by the Bank 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. Neither the

The Bank's Engineer or any representative of the Bank shall have power to give notice to the Contractor or his representative of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued.

- (g) The work will, from time to time, be examined by the Bank's Engineer/Bank's representative but

such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause the Contractor shall take instructions only from the Bank's Engineer.

- (h) "Notice in Writing" or Written Notice shall mean a notice written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- (i) "Act of Insolvency" shall mean any act of insolvency as defined by the Presidency Towns Insolvency Act or the Provincial Insolvency Act or any Act amending such original.
- (j) "Net Prices" if in arriving at the Contract amount the Contractor shall have added to or deducted from the total of the items in the tender any sum either as percentage or otherwise, than the net prices of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the tender as the price of that item a similar percentage or proportionate sum provided always that in determining the percentage of proportion of the sum so added or deducted by the Contractor the total amount of 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 accounts shall be held to mean rates or prices so arrived at.
- (k) "The Works" shall mean **"Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar."**
- (l) Words imparting persons include firms and corporations. Words imparting the singular only also include the plural and vice versa, where the context requires.

## **1.2 Scope of Contract**

**1.2.1** 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, directions, and explanations which are hereafter collectively referred to as "Bank's Engineer's Instructions" in regard to,

- (a) The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
- (b) Any discrepancy in the drawings or between the Schedule of Quantities and/or Drawings 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 Contractors.
- (e) The dismissal from the works of any persons employed thereupon.
- (f) The opening up for inspection of any work covered up.
- (g) The amending and making good of any defects under clause 1.19 hereof.

**1.2.2** 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 work by the Bank's Engineer shall, if involving a variation, be confirmed in writing by the Contractor within SEVEN days, and if not dissented from in writing within a further SEVEN days by the Bank's Engineer, such shall be deemed to be the Bank's Engineer's Instructions within the scope of Contract.

### **1.3 Variations to be approved by Bank**

**1.3.1** Notwithstanding anything herein contained, the Bank's Engineer or his representative shall not, without the prior concurrence in writing of the Bank issue any instructions, verbal or in writing, which will result in the Bank having to pay the Contractor an additional sum and all instructions issued to the Contractor should forthwith be brought to the notice of the Bank. 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 Bank shall form a supplementary agreement. The Bank shall not be liable for payment of such variations until these statements are sanctioned by it.

### **1.4 Drawings, Schedule of Quantities and Agreement**

**1.4.1** The Contract shall be executed in duplicate and the Bank and the Contractor shall be entitled to one executed copy each for his use. The Contractor on the signing hereof, shall be furnished by the Bank's Engineer, free of cost, one copy each of the said Drawings and of the Specifications. Any further copies of such Drawings required by the Contractor shall be paid for by him. The Contractor shall keep one copy of all Drawings on the works and the Bank's Engineer or his representative shall at all reasonable times have access to the same. Before the issue of the final certificate to the Contractor he shall forthwith return to the Bank all Drawings and Specifications.

### **1.5 Contractor to provide everything necessary at his/her cost**

**1.5.1** The Contractor shall provide at his/her 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.

### **1.6 Authorities, Notices and Patents**

**1.6.1** 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, electric supply and other companies and/or authorities with whose systems 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 Bank's Engineer written notice, specifying the variations 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/she shall proceed with the work conforming to the provisions, regulations, or byelaws in question, and any variation so necessitated shall be dealt.

**1.6.2** The Contractor shall bring to the attention of the Bank's Engineer all notices required by the said Acts, regulations or bye-laws 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 Bank's Engineer.

**1.6.3** The Contractor shall indemnify the Bank 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.

### **1.7 Setting out of Works**

**1.7.1** 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 positions, 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.

### **1.8 Materials & Workmanship to conform to Descriptions**

**1.8.1** 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 Bank's Engineers' instructions and the Contractor shall upon the request of the Bank's Engineer furnish him with all invoices, accounts, receipt 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 which the Bank's Engineer may require.

### **1.9 Contractor's Superintendence & Representative on the works**

**1.9.1** The Contractor shall give all necessary personal superintendent during the execution of the works and as long thereafter as the Bank's Engineer 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 at work. Any directions explanations, instructions or notices given by the Bank's Engineer to such representative shall be held to be given to the Contractor.

### **1.10 Dismissal of Workmen**

**1.10.1** 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.

### **1.11 Access to Works**

The Bank and their representatives shall at all reasonable times have free access to the works and/or to the workshops, factories or other places where the material is lying or from which they are being obtained and the Contractor shall give every facility to the Bank and their representative necessary for the inspection and examination and test of the materials and workmanship. Pre-dispatch inspection of materials will be carried out by Bank's Technical officer. No person not authorized by the Bank except

the representatives of public authorities shall be allowed on the works at any time.

#### **1.12 Assignment and Sub-letting**

**1.12.1** 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 Bank, and no undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their progress.

**1.12.2** 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 additions to, or omissions from the works or any alterations in the kind or 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 alterations or additions to or omissions from the works or any deviations from any of the provisions of the Contract, Stipulation, Specification or Contract Drawings without the previous consent in writing of the Bank's Engineer and the value of such extras, alterations, additions, or omissions shall in all cases be determined by the Bank's Engineers with the prior approval in writing of the Bank and the same shall be added to, or deducted from the Contract Amount, as the case may be, accordingly.

#### **1.13 Schedule of Quantities**

**1.13.1** The schedule of quantities, unless otherwise stated shall be deemed to have been prepared in accordance with the standard method of measurement. The mode of measurement for measurable items of work shall be as indicated in the sub-section "mode of measurement" under section.

**1.13.2** 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 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.

#### **1.14 Sufficiency of Schedule of Quantities**

**1.14.1** 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.

#### **1.15 Measurement of Works**

**1.15.1** 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 the Bank's Engineer or his representative in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them.

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

**1.15.3** The Contractor or his Agent may at the time of measurement take such notes and measurements as he may require.

**1.15.4** All authorised extra works, omissions, and all variations made without the Bank's Engineers' knowledge, if subsequently sanctioned by him in writing (with the prior approval in writing of the Bank) shall be included in such measurements.

**1.16 Prices for extras etc. - Ascertainment of**

**1.16.1** The Contractor may, when authorized, and shall, when directed, in writing by the Bank's Engineer with the approval of the Bank 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 additions, omissions or variation without such authorization or direction. A verbal authority or direction by the Bank's Engineer shall, if confirmed by him in writing within seven days, be deemed to have been given in writing.

**1.16.2** No claim for an extra item shall be allowed unless it shall have been executed under provisions of Clause 1.2.2 hereof or by the authority of the Bank's Engineer with the concurrence of the Bank as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.

- a. Rates for all items, wherever possible, should be derived out of the rates given in the priced Schedule of Quantities.
- b. The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.
- c. The net prices of the original tender shall determine the value of the 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) and (d) hereof.
- d. Where the extra works are not of similar character and/or executed 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 omission or additions relative to 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 expense beyond that reasonably contemplated by the Contractor or it by reason of such omission or addition rendered unreasonable or inapplicable, the Bank's Engineer shall fix such other price as in the circumstances he shall think reasonable and proper, with the prior approval in writing of the Bank.

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 Price Schedule of 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 (and if required by the Bank's Engineer the workmen's names) and materials employed be delivered for verification on to the Bank's Engineer or his representative at or before the end of the week following that in which the work has been executed.

**1.16.3** Extra item for variation of quantity: - The Contractor should note that unless otherwise stated the tender is strictly on item rate basis and his attention is drawn to the fact that rates for each and every item should be correct, workable and self-supporting. The quantities in the Schedule of Quantities approximately indicate the total extent of work but may vary to any extent and may even be omitted thus altering the aggregate value of the contract. However, during the actual execution of work if the quantities of any of the items of work exceeds by more than 25 % of the tender quantities, the quantities of such items executed, by the authority of Bank's Engineer, in excess of 25% of the tender quantity shall be considered as an extra item of work for which the contractors shall submit fresh rates supported by rate analysis worked on the actual cost basis plus 15% towards establishment charges, contractor's over heads and profit. The rates for all such items of work, being current ones, will not be eligible for price adjustments due to increase or decrease in prices of materials and labour rates as per escalation formula, if any given in the tender. If any of the items of work is omitted from the accepted tender at the sole discretion of the Bank, the contractor shall not be entitled to any claim on this account.

**1.16.4** 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 1.20 hereof.

### **1.17 Unfixed materials when taken into account to be Property of the Bank**

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

### **1.18 Removal of Improper Works**

**1.18.1** The Bank's Engineer, 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 or the instructions of the Bank's Engineer, the substitution of proper materials and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the Drawings and Specifications or instructions; and the Contractor shall forth-with carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order, the Bank shall have the power to employ and pay other persons to carry out the same; and all expense consequent thereon, or incidental thereto, as certified by the Bank's Engineer shall be borne by the Contractor, or may be deducted by the Bank from any moneys due, or that may become due, to the Contractor.

### **1.19 Defects after Virtual Completion**

**1.19.1** Any defect, shrinkage, settlement or other faults which may appear within the "defect liability period" stated in the Appendix hereto or, if none stated, then within twelve months from the date of completion of the work arising in the opinion of the Bank's Engineer from materials or workmanship not in accordance with the Contract, shall upon the directions in writing of the Bank's Engineer 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 Bank 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 or incidental thereto shall be made good and borne by the Contractor and such damages, loss and expenses shall be recoverable from him/her by the Bank or may be deducted by the Bank from any money due or that may become due to the Contractor, or the Bank may in lieu of such amending and making good by the Contractor, deduct from any moneys due to the Contractor a sum, to be determined by the Bank's Engineer, equivalent to the cost of amending such work and in the event of the amount retained under Clause 1.28 hereof being insufficient, recover the balance from the Contractor, together with any expenses the Bank may have incurred in connection therewith. Should any defective work have been done or material supplied by any sub-Contractor employed on the works, who has been nominated or approved by the Bank's Engineer as provided in Clauses 1.11 and 1.12 hereof the Contractor shall be liable to make good in the same manners as if such work or material had been done or supplied by this Contractor and been subject to the provisions of the Clause 1.2 hereof. The Contractor shall remain liable under the provisions of this clause notwithstanding the signing of any Certificate or the passing of any accounts, by the Bank's Engineer.

#### **1.20 Other Persons Employed by Bank**

**1.20.1** The Bank reserves the right to use the premises and any portions 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 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 materials for the execution of such work except by special arrangements with the Bank. 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.

#### **1.21 Insurance in respect of Damage to Person & Property**

**1.21.1** The Contractor shall be responsible 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 of 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. This Clause shall be held to include inter-alia, any damage to buildings, whether immediately adjacent or otherwise and any damage to roads, streets, footpaths, bridges or way as well as all damages caused to the buildings and works forming the subject of this Contract by frost, rain, wind or other inclemency of weather. The Contractor shall indemnify the Bank and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any Acts of any award of compensation or damages consequent upon such claim.



**1.21.2** The Contractor shall reinstate all damage of every sort mentioned in this Clause, so as to deliver up 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.

**1.21.3** The Contractor shall indemnify the Bank against all claims which may be made against the Bank by any member of the public or other third party in respect of anything which may arise in respect of the work or in consequence thereof and shall at his own expense arrange to effect and maintain, until the virtual completion of the Contract with an approved office a Policy of Insurance in the joint names of the Bank and the Contractor against such risks and deposit such policy or policies with the Bank's Engineer from time to time during the currency of this Contract. The Contractor shall also similarly indemnify the Bank against all claims which may be made upon the Bank whether under the Workmen's 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 expense effect and maintain, until the virtual completion of the Contract, with an approved Office a Policy of Insurance in the Joint names of the Bank and the Contractor against such risks and deposit such Policy or Policies with the Bank from time to time during the currency of the Contract.

**1.21.4** 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. He shall also indemnify the Bank in respect of any costs, charges, or expenses arising out of any claim or proceedings and also in respect of any award of or compensation or damages arising therefrom.

**1.21.5** The Bank shall be entitled to deduct the amount of any damage, compensation, costs, charges and expenses arising or 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 Bank'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 policies in the **joint name of RBI and contractor (RBI's name being placed first in the policy)** within 14 days of issue of work order or before commencement of work, whichever is earlier and deposit such policy or policies with the Bank's Engineer from time to time during the currency of this Contract.

1. **(C.A.R. Policy) for the total amount of contract**
2. **Workmen compensation policy.**
3. **Third party liability policy with the limits as under**
  - (a) **Rs.2 lakh in respect of damage to property for any one accident or occurrence subject to an overall ceiling of Rs.5 lakh.**
  - (b) **Rs.1 lakh per person for any one accident or occurrence.**

## **1.22 Date of Commencement & Completion**

**1.22.1** The Contractor shall be allowed admittance to the site on the "Date of Commencement" stated in the Appendix hereto, or such later date as may be specified by the Bank's Engineer and he shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same (except such paint or other decorative work as the Bank's Engineer may desire to delay) on or before the "Date of Completion" stated in the Appendix subject nevertheless to the provisions for extension of time hereinafter contained.\

### **1.23 Damage 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 (under general instruction to tenderers) 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 installment of payment becoming due and payable to the contractor in terms of this contract or from the retention money."

**Liquidated damages at the rate 0.25% of the contract amount per week of delay beyond stipulated period will be levied subject to maximum of 10% of the contract amount.**

### **1.24 Delay & Extension of Time**

**1.24.1** If in the opinion of the Bank, 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 then through the Contractor's own default or

(d) by the works or delays of other Contractors or Tradesmen engaged or nominated by the Bank and not referred to in the Schedule of Quantities and/or Specifications or (e) by reason of Bank's Engineer's instructions as per Clause 1.2 hereof or (f) by reason of civil commotion, local commotion 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 Bank's Engineer for which he shall have specifically applied in writing or (h) from other causes which the Bank's Engineer 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 Bank's Engineer may with the previous approval in writing of the Bank 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, as soon as may be given written notice thereof to the Bank's Engineer, but the Contractor shall nevertheless constantly use his endeavor to prevent delay and shall do all that may reasonably be required to the satisfaction of the Bank's Engineer to proceed with work.

### **1.25 Failure by Contractor to comply with Bank's Engineer's Instructions**

**1.25.1** If the Contractor after receipt of written notice from the Bank requiring compliance within fourteen days fails to comply with such further drawings and/or Bank's Engineer's instructions, the Bank 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 Bank on the Certificate of the Bank's Engineer as a debt or may be deducted by him from any moneys due to the Contractor.

### **1.26 Termination of Contract by the Bank**

**1.26.1** 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 supervision of the Court and the Official

Assignee or the Liquidator in such acts of insolvency or winding up shall within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Bank's Engineer that he can carry out and fulfill the Contract and to give security therefor, if so, required by the Bank's Engineer.

Or, if the Contractor (whether an individual, firm 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 Contractor, or shall assign or sublet this Contract without the consent in writing of the Bank first hand obtained. Or shall charge or encumber this Contract or any payments to you, or which may become due, to the Contractor then and there,

Or if the Bank's Engineer shall certify in writing to the Bank that the Contractor:

- i) has abandoned the Contract, or
- ii) has failed to commence the works, or has without any lawful excuse under these Conditions suspended the progress of the works for fourteen days after receiving from the Bank's Engineer notice to proceed, or
- iii) has failed to proceed with the works 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 material from the site or to pull down and replace work for seven days after receiving from the Bank written notice that the said materials or works were condemned and rejected by the Bank's Engineer under these conditions, or has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this 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.

Then and in any of the said cases the Bank may, notwithstanding any previous waiver, after giving seven days' notice in writing to the Contractor, determine the Contract, but without thereby affecting the powers of the Bank's Engineer or the obligations and liabilities of the Contractor, the whole of which shall continue in force as fully as if the Contract had not been so determined, and as if the works subsequently executed had been executed by or on behalf of the Contractor. And further, the Bank by his agents or servants may enter upon and take possession of the works and all plant, tools, scaffoldings, shade, machinery, steam and other power utensils and materials lying upon the premises of 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 works 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's Engineer 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 Bank may sell the same by public auction, and give credit to the Contractor for the net amount realized. The Bank's Engineer shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to, or by the Bank, for the value of the said plant and materials so taken possession of by the Bank and the expenses or loss which the Bank shall have been put to in procuring the works to be completed, and the amount, if any, owing to the Contractor and the amount, which shall be so certified, shall thereupon be paid by the Bank to the Contractor or by the Contractor to the Bank, as the case may be, and the Certificate of the Bank's Engineer shall be final and conclusive between the parties.

### **1.27 Termination of Contract by Contractor**

**1.27.1** If payment of the amount payable by the Bank 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 Bank, or if the Bank interferes with or obstructs the issue of any such certificate, or if the Bank shall repudiate the Contract, or if the works be stopped for three months under the order of the Bank's Engineer or the Bank or by any injunction or other order of any Court of Law, then and in any of the said cases, the Contractor shall be at liberty to determine the Contract by notice in writing to the Bank, through the Bank's Engineer, and he shall be entitled to recover from the Bank, 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 of the Contract.

**1.27.2** 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.

### **1.28 Certificate & Payments**

**1.28.1 A** The Contractor shall be paid by the Bank from time to time by installments under Interim Certificates to be issued by the Bank's Engineer to the Contractor on account of the works executed when in the opinion of the Bank's Engineer work to the approximate value named in the Appendix as Value of work for Interim Certificates (or less at the reasonable discretion of the Bank's Engineer) has been executed in accordance with the Contract. No certificate of the Bank's Engineer shall of itself be conclusive evidence that any works or materials to which it relates are in accordance with the Contract neither will the Contractor have a claim for any amounts which the Bank's Engineer might have certified in any interim bill and paid by the Bank and which might subsequently be discovered as not payable and in this respect the Bank's decision shall be final and binding.

**1.28.1 B.** The contractor, on signing an Undertaking in the specified form, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials (The assessed value shall be the least of the purchase value supported by the tax paid vouchers, duly verified, or material price derived from the tender rate for the respective item) which are in the opinion of the Bank's Engineer non-perishable, non-fragile and are in accordance with the contract and which have been brought on the site in connection therewith as per the approved progress plan and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which

an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered /deducted from the next payment made under any of the clause or clauses of this contract.

The decision of the Engineer- in-Charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

**1.28.2** The Bank's Engineer shall have power to withhold any certificate if the works or any parts thereof are not being carried out to his satisfaction.

**1.28.3** The Bank's Engineer may by any certificate make any correction in any previous certificate which shall have been issued by him.

**1.28.4** No Certificate of Payment shall be issued by the Bank's Engineer if the Contractor fail to ensure the works and keep them insured till the completion of the work.

**1.28.5** Payments upon the Bank's Engineer's Certificate shall be made within the periods named in the Appendix as "Period for honour of Certificate" after such Certificates have been delivered to the Bank.

### **1.29 Delayed Payment**

Any amounts payable by the Bank to the Contractor in pursuance of any Certificate given by the Bank's Engineer hereunder shall, if not paid within the "Period for honouring Certificate" named 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 such sum ought to have been paid by the Bank until the payment.

### **1.30 Matters to be finally determined by Bank's Engineer**

**1.30.1** The decision, opinion, direction, Certificate of the Bank's Engineer (Except for payment) with respect to all or any of the matters under Clauses 1.2.1 (a, b), 1.5, 1.6, 1.13 and 1.24 (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, certificate or valuation of the Bank's Engineer or any refusal of the Bank's Engineer to give any of the same, shall be subject to the right of Arbitration and review under Clause 1.31 hereof in the same way in all respects (including the provisions as to opening the reference) as if it were a decision of the Bank's Engineer.

### **1.31 Settlement of Dispute by Arbitration**

**1.31.1** All disputes and differences of any kind whatever arising out of or in connection with 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's Engineer, who shall state his decision in writing. Such decision may be in the form of a final certificate or otherwise. The decision of the Bank's Engineer with respect to any of the excepted matters shall be final, But if either the Bank or the Contractor be dissatisfied with the decision

of the Bank's Engineer on a matter, question or dispute of any kind (except any of the excepted matters) or as to the withholding by the Bank's Engineer of any Certificate to which the Contractor may claim to be entitled, then and in any such case, either party (the Bank or the Contractor) may within 28 days after receiving notice of such decision given a written notice to the other party through the Bank's Engineer requiring that 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 and no other shall be and is hereby referred to the arbitration and final decision of an arbitrator to be agreed upon as appointed by both the parties or, in case of disagreement as to the appointment of a single arbitrator, to the appointment of two arbitrators, one to be appointed by each party, which arbitrators shall, before taking upon themselves the burden or reference, appoint an Umpire.

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

**1.31.3** The Arbitrator or Arbitrators, as the case be, shall make his or their award within one year (or such further extended time as may be decided by him or they, as the case may be, with the consent of the parties from the date of the Arbitrator entering on the reference. In case during the arbitration proceedings the parties mutually settle, compromise or compound their dispute or difference, the Arbitrator or Arbitrators, as the case may be shall be deemed to have been revoked and the arbitration proceedings shall stand withdrawn or terminated, with effect from the date on which the parties file a joint memorandum of settlement thereof, with the Arbitrator or Arbitrators as the case may be.

**1.31.4** Upon every or any such reference, the cost of and 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 attorney and client or as between party and party, and shall direct by whom and to whom and in what manner the same shall be borne and paid. 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. The Award of the Arbitrator or Arbitrations, as the case shall be final and binding to the parties. It is agreed that the Contractor shall not delay in carrying out the works by reasons of any such matter, question or dispute being referred to arbitration but shall proceed with the work with all due diligence and shall, until the decision of the Arbitrator or Arbitrators, as the case may be, given abide by the decision of the Bank's Engineer and no Award of Arbitrator or Arbitrators, as the case maybe, shall relieve the Contractor of his obligations to adhere strictly to the Bank's Engineer's instructions with regard to the actual carrying out of the works. The Bank and the Contractor hereby also agree that arbitration under this Clause shall be a condition precedent to any right to action under the Contract.

**1.32** Right of Technical Scrutiny of Final Bill

**1.32.1** The Bank shall have a right to cause a technical examination of the works by any agency and the full 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 or otherwise any sum is found to have been overpaid or over-certified it shall be lawful for the Bank to recover the sum.

**1.33** Bank Entitled to Recover Compensation Paid to Workmen

**1.33.1** If, for any reason, the Bank is obliged, by virtue of the provisions of the workman'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 Bank, shall be entitled to recover from the Contractor the amount of compensation so paid, and without prejudice to the rights of the Bank under the said Act. The Bank 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 Bank to the Contractor Under this Contract or otherwise. The Bank shall not be bound to contest any against it claim made under the said Act, except on the written request of the Contractor and upon his giving to the Bank full security to the satisfaction of the Bank for all costs for which the Bank might become liable in consequence of contesting such claim.

#### **1.34 Abandonment of Works**

**1.34.1** If at any time after the acceptance of the tender, the Bank shall for any reasons whatsoever not require the whole or any part of the works to be carried out, the Bank's Engineer 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 execution of the whole works.

#### **1.35 Return of Surplus Materials**

**1.35.1** Notwithstanding anything to the contrary contained in any of all the clauses of this Contract, where any materials for the execution of the Contract are procured with the assistance of the Bank 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 off them without the prior written permission of the Bank and return them to the Bank, if required by the Bank at the price to be determined by the Bank's Engineer having due regard to the condition of the materials, the price to be determined not to 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 permits and/or criminal breach of trust, be liable to the Bank all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

#### **1.36 Right of the Bank to Terminate Contract in the Event of Death of Contractor, if Individual**

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

#### **1.37 Testing**

**1.37.1** As required by Bank's engineer, certificate/ purchase bill to be submitted if required.

#### **1.38 Prevention of Sexual Harassment**

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

- b) 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.
- c) 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.
- d) The contractor shall be responsible for educating its employees about prevention of sexual harassment at workplace and related issues.
- e) The contractor shall provide a complete and updated list of its employees who are deployed within the Bank's premises.

### **1.39 Non-Disclosure Clause**

The Contractor shall not disclose directly or indirectly any information, materials and details of the Bank's infrastructure/systems/ equipments etc., which may come to the possession or knowledge of the Contractor during the course of discharging its contractual obligations in connection with this 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. 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

### **1.40 Work at Site**

**1.40.1** The contractor shall inspect the site and ascertain for himself the nature, character and extent of work to be executed and shall include all items, whether specifically mentioned or not in the Specifications, Drawings, or Schedule of quantity to make with the intent and purpose of these Specifications.

**1.40.2** Before submitting the quotations the Contractor is advised to inspect the site and understand the scope of the work fully. In case of any clarifications required, The Contractor may approach the Bank's Engineer.

**1.40.3** The labourer of the Contractor will not be allowed to stay within the premises except during the work.

**1.40.4** The electric power required for the work can be drawn from the existing supply point available a site. Necessary switch boards with fuse, wires etc. and other accessories required for drawing the power to site will have to be arranged by the contractor.



**1.40.5** Permission, if any, required from the local bodies shall have to be obtained by the contractor at his own cost.

**1.40.6** The entire materials for the work shall be brought to the working area through the staircase only and the lifts of the Bank shall not be used for the purpose.

**1.40.7** The intending Contractor may obtain any clarifications regarding the tender from the office of the AGM, Estate Department, Reserve Bank of India, Bhubaneswar.

**1.40.8** The Contractor may please note that the area involved for this work is inside the office Building. This building, therefore, is in occupation. The Contractor, therefore, will have to carry out his work without causing any inconvenience to the staff working in the Premises.

**1.40.9** The work area required to be cleared of debris on a day to day basis without any additional cost to the Bank.

**1.40.10** At the site of work either the contractor himself should be present to supervise the work or else make necessary arrangements to post a qualified supervisor to supervise the work at site. Any instructions given by the Bank's engineer to the supervisor will be construed to have been given to the contractor and similar compliance expected from him.

**1.40.11** Any damage caused to the Bank's/other property (inside the premises) shall be made good by the contractor at his own cost.

**1.40.12** The contractor shall ensure that the labourers employed by him have some official valid documents (OVD) such as Aadhar card, voter ID card, driving license etc. to facilitate security related checks on them. In case the labourers do not have any document to prove their identity they may not be allowed to enter the Bank building premises.

I/We have understood all the above-mentioned conditions and they are acceptable to me/us.

Place:

Date:

Signature of Tenderer

Name and designation:

Name of firm with Seal

## Section H

A bidder is liable for debarment/disqualification from bidding on the following rounds:

1. If it is determined that the bidder has committed the following acts or omissions in contravention of the code of integrity:

- a) Making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
- b) Any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained, or an obligation avoided.
- c) Any collusion, bid rigging or anticompetitive behavior that may impair the transparency, fairness and the progress of the procurement process.
- d) Improper use of information provided by the procuring entity to the bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
- e) Any financial or business transactions between the bidder and any official of the procuring entity related to tender or execution process of contract: which can affect the decision of the procuring entity directly or indirectly.
- f) Any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
- g) Obstruction of any investigation or auditing of a procurement process.
- h) Making false declaration or providing false information for participation in a tender process or to secure a contract;
- i) Failed to disclose conflict of interest.
- j) Failed to disclose any previous transgressions made in respect of the provisions of sub-clause(i) with any public institution / entity in India or any other country during the last three years or of being debarred by any public procuring institution / entity

2. For any actions or omissions by the bidder other than violation of code of integrity, which in the opinion of the Bank warrants debarment, for the reasons like supply of sub-standard material, on-supply of material, abandonment of works, substandard quality of works, failure to abide terms of the tender etc.

3. If the bidder has been convicted of an offence— (a) under the Prevention of Corruption Act, 1988; or (b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.

**Undertaking regarding declaration of debarment by public institution(s)**  
**(To be submitted by the tenderer on their letterhead)**

Name of Work: **Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**

1. I / we .....(Name of the bidder) declares that

(a) I / we or any of our allied firm\* is / are not debarred / suspended / blacklisted by any public institution / entity in India or any other country as on ..... (last date of submission of bid).

(b) I / we or any of our allied firm\* have not made any transgression in respect of the code of integrity with any public institution / entity in India or any other country in last three years as on.... .....(last date of submission of bid).

(c) I / we will inform the Bank in writing, in case, I / we or any of our allied firm\* is / are debarred / suspended / blacklisted by any public institution / entity in India or other country on or before award of work for the captioned work.

2. I / we..... (Name of the firm) declare that I /we or our allied firm\* ..... (Name of the allied firms(s)) is / are debarred / suspended/ blacklisted by ..... (Name and address of public institution in India or any other country) and the same effective up to ..... (date). A copy of such letter is attached for your information and record.

(Seal and signature of the applicant)

Date:

Place:

Note: Strike out one of the above two declarations which is not applicable

\*Allied firm: A firm would be termed as "allied firm" if the management is common, or substantial or majority shares are owned by the banned / suspended firm and by virtue of this it has a controlling voice. Further all successor firms will also be considered as allied firms.



**Reserve Bank of India  
Estate Department  
Bhubaneswar**

**Annexure I**

**ARTICLES OF AGREEMENT**

ARTICLES OF AGREEMENT made on \_\_\_\_\_ between the RESERVE BANK OF INDIA, BHUBANESWAR having its Central Office at Mumbai 400001 (Hereinafter called "The Bank") of the one part and \_\_\_\_\_ (hereinafter called " the Contractor") of the other part.

WHEREAS the Bank desirous of carrying out **“Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar”** and has caused Drawing and Bills of Quantities showing and describing the work to be done to be prepared by or under the direction of Bank’s Engineer.

AND WHEREAS the contractor has agreed to execute upon and 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 rate therein set forth amounting to the sum as therein arrived at or such other sum as shall become payable there under (hereinafter referred to as “the said Contract Amount”).

**NOW IT IS HEREBY AGREED AS FOLLOWS:**

1. 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. The Bank shall pay the contractor the said Contract Amount or such other sum as shall become payable, at the times and in the manner specified in the said Conditions.
3. The term “Bank’s Engineer” in the said condition regarding execution of the work, quality of construction, quality of materials, progress and completion of the project etc. shall mean the Deputy General Manager (Technical), or any other person designated for the purpose by the Reserve Bank of India. As far as the operation of the provision of the contract viz. clause relating to settlement of disputes through arbitration, the term “Bank’s Engineer” shall be read as Deputy General Manager / Officer – in-charge, of the Estate Department, Reserve Bank of India, Bhubaneswar.

4. The said Conditions and Appendix thereto 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 perform the agreements on their part respectively in the said Conditions contained.
5. The plans, agreement and the documents mentioned herein shall form the basis of this Contract.
6. This Contract is neither a fixed lump sum Contract nor a piece Work Contract, but it is a Contract to carry out the work in respect of Tender for **Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar** to be paid for according to actual measured quantities at the rates contained in the Schedule of quantities or as provided in the said Conditions.
7. The Contractor shall afford every reasonable facility for the carrying out of all works relating to civil works, installation of sanitary work and fittings, permanent water supply, 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.
8. The Bank reserves to itself the right of altering the Drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this Contract.
9. The Contractor shall not disclose directly or indirectly any information, materials and details of the Bank's infrastructure/systems/equipment's etc., which may come to the possession or knowledge of the Contractor during discharging its contractual obligations in connection with this 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 of the works in any trade or technical paper or elsewhere without the previous written consent of the Bank. The Contractor shall indemnify the Bank for any loss suffered by the Bank because 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 Bank 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.
10. The contractor hereby agrees to commence the work from 14<sup>th</sup> day of date of work award letter and to complete the entire work within **50 days** subject nevertheless to the provisions of extension of time in writing by such form (I.e., by way of deed of agreement or by exchange of letters / email) as may be mutually decided by the parties.
11. All payments by the Bank under this contract will be made only at Bhubaneswar.
12. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen at Bhubaneswar and only Courts in Bhubaneswar shall have jurisdiction to determine the same.

13. The several parts of this Contract have been read by the Contractor and fully understood by the Contractor.
14. The original tender submitted by the successful contractor, a complete set of tender drawings which were made available to the tenderer or made available for inspection by the intending tenderers, all the correspondence exchanged between the Bank and the successful tenderer after the date of opening of the tender till the date of award of the contract and the work order having letter no. BBS.ESTT.ESAD.No.\_\_\_\_\_ dated \_\_\_\_\_ will form part of the agreement.
15. The contractor/agency shall be solely responsible for full compliance with the provisions on prevention of Sexual harassment of Women at work place under Prevention, Prohibition and Redressal Act 2013. In case of any complaint of sexual harassment against its employee within the premises of 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 of the complaint.
- (a) 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.
- (b) The contractor shall be responsible for any monetary compensation that may need to be paid in case of incident involves the employee of the contractor, for instance any monetary relief to Bank's employee, if sexual violence by the employee of the contractor is proved.
- (c) The contractor shall be responsible for educating its employees about the prevention of sexual harassment at workplace and related issues.
- (d) The contractor shall provide a complete and updated list of its employees who are deployed within the bank's premises.
16. Contractors shall comply with minimum wage Act, labour Act and any other act, in force. Notices/penalty, if any, issued/ imposed by any statutory bodies in the work due to lapses by the contractor in complying with the statutory norms/ requirements shall be paid by the contractor, without any claim to the Bank.

#### **17. Governing Language**

This Agreement has been executed in English and Hindi. If Hindi translation of this Agreement conflicts with the English version or contains terms in addition to or different from the English version, the English version shall prevail.

IN WITNESS WHERE OF the Bank and the Contractor have set their respective hands to these presents and two duplicates thereof the day and year first hereinabove written. (If the Contractor is a partnership or an individual).

IN WITNESS WHERE OF the Bank has set its hands to these presents through its duly authorized officials and the Contractor has caused its common seal to be affixed hereunto and the said two duplicates/ has caused these presents and the said two duplicates hereof to be executed on its behalf, the day and year first hereinabove written, (If the Contractor is a Company).

भारतीय रिजर्व बैंक की ओर से हस्ताक्षरित  
और सुपुर्द

ठेकेदार की ओर से हस्ताक्षरित  
और सुपुर्द

**SIGNED AND DELIVERED BY**

Reserve Bank of India by the hand of

\_\_\_\_\_  
(Name & Designation)

**SIGNED AND DELIVERED BY**

the Contractor by the hand of

\_\_\_\_\_  
(Name & Designation)

गवाह/In the presence of:

i) \_\_\_\_\_

पता /Address\_\_\_\_\_

ii) \_\_\_\_\_

पता /Address\_\_\_\_\_

गवाह/In the presence of:

i) \_\_\_\_\_

पता /Address\_\_\_\_\_

ii) \_\_\_\_\_

पता /Address\_\_\_\_\_

**Annexure - II**  
**FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF PROPOSAL**  
(On Non-Judicial Stamp Paper of appropriate value)

Know all men by these presents, We.....(Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize Mr./Ms. ....(Name and residential address of Power of Attorney holder) who is presently employed with us and holding the position of .....

as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the “**Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**” on Item Rate Contract basis for Reserve Bank of India including signing and submission of all documents and providing information / responses to RBI, representing us in all matters before RBI, and generally dealing with RBI in all matters in connection with our proposal for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Note:

Power of Attorney should be properly stamped and notarized

Power of Attorney furnished shall be irrevocable.

Signature/(s) of the Bidder

Name/(s)

Stamp/Seal of the Bidder

(NB: This guarantee will require stamp duty as applicable in the state, where it is executed and shall be signed by the official whose signature and authority shall be verified).



## Annexure III

### Appendix Hereinbefore Referred To

1.	Defects Liability Period	Twelve months from the date of Virtual Completion Certificate
2.	Period of Final Measurement	3 months
3.	Date of Commencement	From the date of letter of issue of work order.
4.	Date of Completion	Date of virtual completion certificate.
5.	Liquidated damages	Liquidated damages at the rate 0.25% of the contract amount per week of delay beyond stipulated period will be levied subject to maximum of 10% of the contract amount.
6.	Value of works for interim certificates	Rs.2 lakh
7.	Retention percentage	5% from each bill (RA & Final bill)
8.	Installment of security deposit after virtual Completion	RM as SD will be released after Defect liability Period subject to rectification of defects pointed out, (if any), satisfactorily.
9.	Period for honoring certificates	One month for interim bills and 3 months for final bill.

Seal & Signature of Tenderer.

Name

Designation

Date

## Annexure IV

### Schedule of Commercial Deviations

We confirm that all commercial terms and conditions and specifications of the Bank except for deviations listed below:

Sr. No.	Section No.	Clause No.	Deviation proposed
1	2	3	4

Seal & Signature of Tenderer.  
Name  
Designation  
Date

## Annexure V

### Schedule of Technical Deviations

We confirm that all technical terms and conditions and specifications of the Bank except for deviations listed below

Sr. No.	Section No.	Clause No.	Deviation proposed
1	2	3	4

Seal & Signature of Tenderer.  
Name  
Designation  
Date

## Section I

### Technical Specification-Electrical Works

## II. ELECTRICAL MATERIAL SPECIFICATION, INSTALLATION AND TESTING

### ELECTRICAL INSTALLATION:

The installations shall generally be carried out in conformity with the requirements of Indian Electricity Act, 1910 as amended up to date and Indian Electricity Rules, 1956 framed there under, the relevant regulations of the Electric Supply Authority concerned and also with the specifications laid down in the Indian Standard IS: 732/1963 "Code of Practice (Revised) for Electrical Wiring Installations (System Voltage not exceeding 650V)". The work shall be executed as per National Electrical Code and if any item is not covered there under or there is any doubt, the specification approved by the Engineer-in-charge will be final and binding.

The installation has to be carried out by an agency holding a valid license issued by the Local Government for carrying out installation work of the voltage classes involved under the direct supervision of persons holding valid certificate of competency issued by the State Government. The Tenderer shall furnish the particulars of the license held by him for carrying out the installation work along with particulars of certificates of competency held by his supervisory staff.

The Tenderer shall visit the premises and ascertain site conditions, existing structures / ceiling and other obstructions if any, and suitably allow for these exigencies in his offer. No extra claims will be admissible later on these grounds.

### 1. LIGHT FIXTURES & FANS

#### 1.0 Scope

1.1 The scope of work shall cover the supply, installation and testing of LED light fixtures and wall bracket fans.

#### 2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS 3646-1968 Code of practice for interior illumination.
- 2) IS 1913-1969 General and safety requirements for electric lighting fittings.
- 3) Indian Electricity Act and Rules issued thereunder.

2.2 All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian standard codes of practice or the relevant British standard codes of practice absence of Indian Standard.

#### 3.0 General Requirements

3.1 All fixtures shall be complete with accessories and fixing necessary for installation whether so detailed under fixture description or not.

3.2 Fixture housing, frame or canopy shall provide a suitable cover for the fixture outlet box or fixture opening.

3.3 Fixtures shall be installed at mounting heights as detailed on the drawings or instructed on site by the R.B.I. Engineer.

- 3.4 Fixtures and /or fixture outlet boxes shall be provided with hangers supporting conduit to adequately support the complete weight of the fixture. Design of hangers and method of fastening other than shown on the drawings or herein specified shall be submitted to the R.B.I. Engineer for approval.
- 3.5 Pendant fixtures within the same room or area shall be installed plumb and at a uniform height from the finished floor. Adjustment of height shall be made during installation as per Drawings.
- 3.6 Flush mounted and recessed fixtures shall be installed so as to completely eliminate light leakage within the fixture and between the fixture and adjacent finished surface.
- 3.7 Fixture mounted on outlet boxes shall be tightly secured to a fixture stud in the outlet box. Extension pieces shall be installed where required to facilitate proper installation.
- 3.8 Fixture shall be completely wired and constructed to company with the regulations and standards for Electric Lighting Fixtures , unless otherwise specified. Fixtures shall bear manufacture's name and the factory inspection unless otherwise approved.
- 3.9 Wiring within the fixture and for connection to the branch circuit wiring shall be not less than 1.5 sq. mm copper for 250 volt application. Wire installation shall suit the temperature conditions inside the fixture and wires bypassing the choke shall be heat protected with a heat resistant sleeve. Suitable 6/16A PVC insulated terminals shall be provided for looping purpose.
- 3.10 Metal used in lighting fixtures shall be not less than 22 SWG or heavier if so required to comply with the specification or standards. Sheet steel reflectors shall have a thickness of not less than 20 SWG. The metal parts of the fixtures shall be completely free from burrs and tool marks. Solder shall not be used as mechanical fastening device for any part of fixture.
- 3.11 Ferrous metal shall be given a corrosion resistant phosphate treatment or other approved rust inhibiting prime coat to provide a rust proof base before application of finish.
- 3.12 Non - reflecting surfaces such as fixture frames and trim shall be finished in baked enamel paint.
- 3.13 Light reflecting surface shall be finished in baked white enamel having a reflection factor of not less than 80 %. All parts of reflector shall be completely covered by finish and free from irregularities. After finish has been applied and cured, it shall be capable of withstanding a 6 mm radius bend without showing sign of cracking , peeling or loosening from the base metal. Finish shall be capable of withstanding 72 hours exposure to an ultraviolet sun lamp placed 10 cm from the surface without discoloration , hardening or warping and obtain the same reflection factor after exposure. Test result shall be furnished for each lot of fixtures.
- 3.14 Fixture with visible frames shall have concealed hinged and catches. Pendant fixtures and lamp holders shall be provided with ball type aligners or similar approved means. Recessed fixtures shall be constructed so as to fit into an acoustic tile ceiling or plaster ceiling without distorting either the fixture or the ceiling plaster rings / flanges shall be provided for plaster ceiling. Fixture with hinged diffuser doors shall be provided with spring clips or other retaining device prevent the diffuser from moving.

- 3.15 Detailed catalogue cuts for all fixtures, or if so requested by the R.B.I. Engineer sample fixtures shall be submitted for approval to the Architect Consultant before orders for the fixtures are placed. Shop drawings for non-standard fixture type shall be submitted for approval to the Architect / Consultant.
- 3.16 Recessed fixtures shall be constructed so that all components are replaceable without removing housing from the ceiling.
- 1) Lamps shall be supplied and installed in all lighting fixtures.
  - 2) Lamps used for temporary lighting service shall not be used in the final lamping of fixtures units.
  - 3) Lamps types & wattage as shown on the drawing and schedule.
  - 4) Lamps for permanent installation shall not be placed in the fixtures until so directed by the R.B.I. Engineer, and this shall be accomplished directly before the building portions are ready for occupation.

#### 4.0 LED fittings

- 4.1 Only single and / or two lamp ballasts shall be used in any one fixture. Ballasts shall be completely enclosed inside sheet casing and shall have a corrosion-resistant finish. Ballast shall contain a thermosetting type compound not subject to softening or liquefying under any operating conditions or upon ballast failure. Compound shall not support combustion. All ballasts shall be of high power factor compensated to above 0.9 PF. Ballast temperature and sound rating shall be specified by the manufacturer and guaranteed. Ballasts shall be for operation at the voltages and frequencies indicated and under temperature conditions prevailing in the various locations of the premises. Tapped ballasts are preferred.
- 4.2 All LED fixtures shall be provided with separate wiring channel with cover plate and an earth terminal. All screws shall be chromium brass screws. Lamps and starter holders shall be out of tough molded plastic with spring loaded rotor type contractors rendered shock and vibration proof. Condensers shall be low loss paper impregnated hermetically sealed complying with IS 1969. Internal shall be neatly clipped and where by passing the ballast, a suitable heat resistant barrier or sleeve shall be provided.
- 4.3 Surface mounted fixtures longer than two feet need additional point of support besides the outlet box fixture stud when installed individually. Pendant individually mounted fixtures four feet long and smaller shall be provided with twin stem / conduit hangers. Stems shall have ball aligners or similar devices and provided for a minimum of 25 mm vertical adjustment. Stems shall be of appropriate length to suspend fixtures at required mounting height.
- 4.4 Lamps shall have BI - pin bases.
- 4.5 Workmanship: Good workmanship and neat appearance are the pre-requisites for compliance with the various sections of these specifications. The work shall carried out under direct supervision of a person holding certificate of competency issued by the State Govt. and in accordance with the statutory rules and regulations in force. The relevant ISI code of practice shall be followed wherever applicable.

#### 10. Additional Specifications:

- a) Any damage to walls, floors, etc during installation and erection must be repaired by the Contractor to match the original surface for which no extra amount will be paid.

- b) For conduits all the junction boxes etc. should be of inspection type and there must be electrical continuity throughout the length.
- c) Approved materials and fittings shall only be used. The Contractor shall replace the unapproved materials and fittings at his own cost.
- d) Intending tenderers are advised to study all the drawings, specifications, conditions etc in detail and inspect the site before submitting tenders so as to ascertain the nature and scope of the work involved and the methods to be adopted for executing the work.
- e) The rate quoted shall include cost of cutting holes and chase in walls floor slabs, repairing the same and restoration of original surface. Nothing extra shall be entertained on this account.
- f) The Contractor will also be required to submit the 'Form of Completion Certificate' in the required proforma.

## **2. CONDUIT WIRING**

### **1.0 Scope**

1.1 The scope of work shall cover supply, installation, testing and commissioning of all conduit wiring.

### **2.0 Standards**

2.1 The following standards and rules shall be applicable.

- 1) IS: 732                      Code of Practice for Electrical wiring installation (System voltage not exceeding 650V)
- 2) IS: 1646                    Code of Practice for fire safety of buildings (General) Electrical Installation.
- 3) IS: 3480                    Flexible steel conduits for electrical wiring.
- 4) IS: 3837                    Accessories for rigid steel conduit for electrical wiring.
- 5) IS: 694                     PVC insulated cables.
- 6) IS: 6946                   Flexible (Pliable) non-metallic conduits for electrical installation.
- 7) IS: 1293                   3 Pin plugs and sockets.
- 8) IS: 8130                   Conductors for insulated electric cables and flexible cord.
- 9) IS: 9537                   Specification for conduits for Electrical installation.
- 10) Indian Electricity Act 1910 and rules issued thereunder.
- 11) Regulations for the electrical equipment in buildings issued by the Tariff Advisory Committee of the Insurance Association of India.

2.2 All standards and codes mean the latest.

### **3.0 Rigid and Flexible conduits – As Specified**

3.1 Conduits can be

- i) Mild steel                :            black enameled
- ii) Mild steel                :            galvanized
- iii) Rigid PVC as specified and required by the schedule of work. Wall thickness in each case shall be as follow:

- |     | STEEL           | Black enameled | Galvanized PVC | Minimum wall thickness |
|-----|-----------------|----------------|----------------|------------------------|
| (a) | Up to 32 mm Dia | 1.4 to 1.8     | Up to 25       | 2.1 mm                 |
| (b) | Over 32 mm Dia  | 1.6 to 2.2     | 32 & over      | 2.8 mm                 |
- 3.2 PVC conduits shall be used only where ever specified.
- 3.3 Flexible conduits shall be formed from a continuous length of spirally wound interlocked strip steel with a fused zinc coating on both sides. The conduit shall be terminated in brass or PVC adaptors. PVC flexible shall not be used.

#### 4.0 Accessories

- 4.1 Conduit fittings such as bends, elbows, reducers, chase nipples, split couplings, plugs, etc. shall be heavy duty specifically designed and manufactured for their particular application and in accordance with relevant I.S.S. Wherever galvanized conduits are specified in the schedule of work, the fittings also shall be galvanized ;

#### 5.0 Wires

- 5.1 All wires shall be single core multi - strand copper FRLS insulated to IS : 694 and shall be 110 V grade as specified and required in the Schedule of work.
- 5.2 All wires shall be colour-coded as follows:

Phase	Colour of wire
R	Red
Y	Yellow
B	Blue
N	Black
Earth	Green (insulated)
Control (If any)	Grey

#### 6.0 Switches & Sockets

- 6.1 Switches shall be moulded type of modular design with silver-plated contacts. Sockets shall be 3 pin & earth with switch & plate type. All switch mounting shall be 16 SWG galvanized steel or PVC specially made as specified for the switches and sockets used. Combination of multiple switch units and sockets should be used in appropriate manner to minimize the switch boxes.
- 6.2 Whether and waterproof switches/sockets shall be used in all outdoor location.
- 6.3 For heavy duty, metal clad sockets with M.C.B. isolator mounted in a galvanized steel box shall be provided.

#### 7.0 Installation

- 7.1 The size of conduit shall be selected in accordance with the number of wires permitted under table given below. The minimum size of the conduit shall be 20 mm Dia unless otherwise indicated or approved. Size of wire shall be not less than 1.5 sq.mm Copper or 2.5 sq.mm Aluminum, but as specified in the schedule of work.



		20 mm		25 mm		32 mm		38 mm	
Nominal Dia of Wires (mm)	Cross sec.Area (sq.mm)	S	B	S	B	S	B	S	B
1/2.40	1.50	4	3	8	6	15	9	-	-
1/2.80	2.50	4	2	6	4	10	8	-	-
1/2.24	4.00	2	2	4	3	8	6	-	-
1/2.80	6.00	1	-	4	3	6	6	-	-
1/3.55	10.00	1	-	3	2	5	4	6	5

S-runs of conduits which have distance not exceeding 4.25m between draw boxes & which do not deflect from the straight by an angle more than 15 degree.

B-runs of conduits which deflect from the straight by more than 15 degree.

7.2 Conduits shall be kept at a minimum of 100mm from the pipes of other non-electrical services.

7.3 Separate conduits/raceways shall be used for each of the following as specified:

- Normal outlets - 15 A 3-pin sockets on lighting circuit.
- Power outlets - 15 A 3-pin 20 A/30 A 2-pin + scraping earth metal clad sockets.
- Emergency lighting.
- Telephone
- Data Cables
- Fire alarm system
- Public address system &
- Call bell wiring.

7.4 Conduit layout shall be generally as indicated on drawings and the layout shall be supplemented and complemented by Contractor on site with the approval of the Engineer. Wiring for short extensions to outlets in hung ceiling or to vibrating equipment, motor, etc., shall be installed in flexible conduits. Otherwise rigid conduits shall be used. No flexible extension shall exceed 1.25 m.

7.5 Conduits run on surfaces shall be supported on metal 6 mm thick saddles which in turn are properly screwed to the wall or ceiling. Saddles shall be at intervals of not more than 500 mm. Fixing screws shall be with round or cheese head and of rust-proof materials. Exposed conduits shall be neatly run parallel or at right angles to the walls of the building. Unseemly conduit bends and offsets shall be avoided by using fabricated mild steel junction / pull through boxes for better appearance. No crossover of conduits shall be allowed unless it is necessary and entire conduit installation shall be clean and neat in appearance.

- 7.6 Conduits embedded into the walls shall be fixed by means of staples at not more than 500 mm intervals. Chases in the walls shall be neatly made and refilled after laying the conduit and brought to the finish of the wall but final finish will be done by the building Contractor / client.
- 7.7 Conduits buried in concrete structure shall be put in position and securely fastened to the reinforcement and got approved by the Engineer, before the concrete is poured. Proper care shall be taken to ensure that the conduits are neither dislocated nor chocked at the time of pouring the concrete.
- Suitable galvanized steel fish wires of not less than 0.63 mm dia shall be drawn in all conduits before they are embedded. Where conduit passes through expansion joints in the building, adequate expansion fittings shall be used to take care of any relative movement.
- 7.8 Inspection boxes shall be provided for periodical inspection to facilitate with drawl and removal of wires. Such inspection boxes shall be flush with the wall or ceiling in the case of concealed conduits. Inspection boxes shall be spaced at not more than 12 meters apart or two 90 degree solid bends or equal. All junction and switch boxes shall be covered by 6 mm clear Perspex plate truly cut and fixed with cadmium plated brass screws. These junction boxes shall form part of point wiring or conduit wiring as the case may be including the cost of removing the Perspex cover for painting and re-fixing.
- 7.9 Conduits shall be free from sharp edges and burrs as and the threading free from grease or oil. Conduit ends shall be threaded to a minimum length of 15 mm so as to provide sufficient length of thread for proper grip and continuity.
- 7.10 An insulated earth wire of not less than 2.5 sq.mm Aluminium or Copper shall be run in each conduit as specified in the Schedule of work.
- 8.0 Lighting & Power Wiring
- 8.1 All final branch circuits for lighting and appliances shall be single conductor cables run inside conduits. The conduit shall be properly threaded and screwed into sockets, bends and junction boxes. No part of the wiring shall be open without a suitable conduit piping.
- 8.2 Branch circuit conductor sizes shall be as shown in the schedule of quantities and or drawings.
- 8.3 Final branch circuits shall preferably be kept in a separate conduit up to the Distribution Board. No other wiring shall be bunched in the same conduit except those belonging to the same phase. Each lighting branch circuit shall not have more than ten outlets or 800 watts, whichever is lower or as shown on drawings. Each conduit shall not hold more than three branch circuits.
- 8.4 Flexible cords for connection to appliance, fans and pendants shall be 660/1000V grade (three or four cores i.e. with insulated neutral wire of same size) with tinned stranded copper wires, insulated, twisted and sheathed with strengthening cord. Colour of sheath shall be subject to the Engineer's approval.
- 8.5 Looping system of wiring shall be used. Wires shall not be joined. Where joints are unavoidable, they shall be made through approved mechanical connectors. No such joints shall be made unless the length of the sub-circuit, sub main or main is more than the length of the stranded coil.

- 8.6 Control switches shall be connected in the phase conductors only and shall be 'ON' when knob is down. Switches shall be fixed in 2mm thick galvanized steel boxes with cover plates as specified. Cadmium plated brass screws shall be used.
- 8.7 Power wiring shall be distinctly separate from lighting wiring. Conduits not less than 25 mm and wires not less than 2.5 sq. mm Aluminium / Copper shall be used as specified in the Schedule of work.
- 8.8 Every conductor shall be provided with identification ferrules at both ends matching the drawings.

#### 9.0 Testing

9.1 The entire installation shall be tested for:

- a) Insulation resistance
  - i) Between phases.
  - ii) Between each phase and earth.
- b) Earth continuity
- c) Polarity of single pole switches.

No installation shall be commissioned unless and until the insulation resistance is 2.0 Mega ohms or less between phase and neutral. All tests shall be witnessed by the Engineer-in-charge and attested.

A test certified shall be submitted as per IS 732.

#### 10.0 Mode of measurement

- 10.1 The final sub circuit wiring commencing from the distribution board till the first switch box or light fitting shall be measured as one point.
- 10.2 The secondary point wiring shall be in accordance with drawing and should include wiring from 10.1 onwards together with all junction boxes, connectors, earth-wire, fixing accessories connection to all light fittings switches etc., as specified and shown on drawings. Measurements shall be along the conduit and concurrent length of sub-circuit wiring shall not form part of the point wiring for purposes of assessment of point length.
- 10.3 All switches sockets with boxes, earthing interconnection and plate type silver contact switch shall be paid for per unit of 1 switch, 2 switch, 3 switch, 4 switch units, 5 A, 15 A switch-sockets, 20 A / 30 A / 60 M.C. sockets & MCB shall be paid extra.
- 10.4 All empty conduit runs, including junction boxes fish wire etc., shall be paid on the basis of unit length.
- 10.5 Two way points shall be classified as separate point and shall consist of 2 Nos. 2 way plate type switches, wiring from the 1st 2 way switch to the 2nd 2 way switch to the first light controlled. Subsequent lights, if any shall be measured as ordinary points according to the length.
- 10.6 Staircase lighting shall be measured as shown in the schedule of work.

### 3. **M.V. SWITCHGEAR**

#### 1.0 Scope

1.1 The scope of work shall cover the supply, installation, testing and commissioning of all power panels, incorporating circuit breakers, switch fuses, bus bars, interconnections, earthing, etc., meeting the requirements shown in equipment schedule and the drawings.

## 2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS: 2516-1972 Specification for AC circuit breakers.
- 2) IS: 4047-1977 Specification for heavy duty air breaker switch gear & fuses for voltage not exceeding 1000V.
- 3) IS: 1818-1972 Specification for AC isolator and earthing switches.
- 4) IS: 3072-1975 Code of Practice for installation and maintenance of switch gear.
- 5) IS: 3106-1966 Code of Practice for selection, installation and maintenance of fuses (Voltage not exceeding 650 V)
- 6) IS: 4237-1967 General requirements for switch gear and control gear for voltage not exceeding 1000V.
- 7) IS: 2607-1976 Air break isolators for Voltages not exceeding 1000V.
- 8) IS: 8623-1977 Specification for factory built assemblies of switch gear and control gear for voltages up to and including 1000V AC & 1200 VDC.
- 9) Indian Electricity Act and Rules.

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

## 3.0 Circuit Breakers

3.1 Circuit breakers shall be air break horizontal draw out type fully interlocked and meeting the requirements of IS:2516 or BS:3659. Breakers shall not be rated for a medium voltage of 600 V and rated full load current as indicated on drawings. Breaker shall be capable of making and breaking system short circuits specified.

3.2 Breakers shall be unless specified otherwise manually operated, complete with front-of-the panel operating handle, isolating plug with safety shutters, mechanical ON/OFF indicator, silver plated arcing and main contacts, are chutes, trip free operation. Breakers shall be capable of being racked out into `testing`, `Isolator` and `Maintenance` positions and kept locked in any position. Breakers for operation shall be motor operated spring charged.

## 4.0 MCCBs

4.1 Moulded cases circuit breakers shall be standard products of established manufacturers and shall conform to BS: 3871. Breakers shall be rated for system short circuit levels and if

unavoidable, backed up by HRC fuses. Breakers shall incorporate thermal and magnetic Trips unless shown otherwise in the drawings.

#### 5.0 Switch fuse units & Disconnects

- 5.1 Switch fuse units shall have quick-make, quick-break silver plated preferably double break contacts with operating mechanism suitable for rotary operation in the case of cubicle mounting. All switches shall be rated according to the equipment schedule or drawings and shall withstand the system prospective fault current let through. Cam operated rotary switches with adequate terminal adapters up to 25A are acceptable but for all higher rating switch fuse units shall be heavy duty type conforming to IS 4047.
- 5.2 Fuse shall be HRC cartridge type conforming to IS:2208 with a breaking capacity corresponding to system fault level Fuses shall be link type with visible indication. Screw type Bottle fuses are not acceptable for any rating.
- 5.3 All disconnects shall consist of switch units quick-make, quick-break type with silver plated contacts. The switches shall preferably have double breaks. The switches shall preferably have sheet steel enclosure, which in turn is mounted on angle iron framework. In wet locations, switches shall have cast iron enclosures. Disconnects shall have a minimum breaking capacity of 5 KA at 415 Volts.

#### 6.0 Instrument Transformers, Meters and Relays

- 6.1 Ammeters and voltmeters shall have moving iron spring controlled dead-beat elements in square bezel flush type cases 96 mm in size and suitable for switch board mounting. Meters shall conform to BS:89 and have grade `A` accuracy. Scale ranges shall meet with the requirements or as indicated on the drawing or in the schedule of quantities.
- 6.2 Energy meter shall be two element switch board mounting type suitable for unbalanced loads. Meters should incorporate a KVA demand meter with an integration time of 30 minutes. Meters shall conform to BS:37. The energy meters for DG Set and transformer shall be calibrated and got certified by the respective electricity authority.

#### 7.0 Cubical Boards

- 7.1 All boards shall be combination of 14 & 16 SWG sheet steel, free standing, extensible, totally enclosed, dust tight, vermin-proof cubicle, flush dead front and modular construction suitable for 3 phase 415V 4 wire 50 Hertz system. All boards shall be accessible from the front for the maintenance of switch fuses, bus bars, cable terminations, meters, etc. Cables shall be capable of entering the board both from top as well as bottom. All panels shall be machine pressed with punched opening for meters, etc. All sheet steel shall be rust inhibited through a process of degreasing acid pickling, phosphating, etc. The panels shall be finished two coats of synthetic enamel of approved colour applied over one coat of red oxide primer. Engraved plastic labels shall be provided indicating the feeder details, and capacity and danger signs.
- 7.2 The boards shall accommodate air insulated bus bars, air circuit breakers, switch fuse units with HRC fuses, starters, necessary meters, relays contractors, etc. as required and arranged in suitable tiers. All breakers and switch fuse shall be suitably dated taking into account specified ambient temperature and ruling temperature inside the cubicle.
- 7.3 The switch board shall be fully compartmentalized in vertical tiers housing the feeders withes in totally enclosed independent compartments. Each compartment shall be self-sufficient with

switch unit, fused, contractors, relays, indicating lamps and an inter-locked door with facility for padlocking. Each feeder must terminate in an independent labeled terminal block. Strip type terminal block accommodating several feeders together is not acceptable. Pressure clamp type terminals suitable for Aluminium wires may be used up to switches of 25A and cable lugs for higher ratings. All terminations shall be shrouded in an approved manner. The entire enclosure shall meet with IS: 2147-1962. Feeder connections shall be UT of solid insulated Copper/ Aluminum wires or strips with bimetallic clamps wherever required. Internal wiring, bus bar markings etc., shall confirm to IS: 375 / 1963. Internal wiring shall have terminal ferrules.

Main switch should be at an easily accessible height and the highest switch operating handle should not be over 1.75m from floor level. Cable glands need not form part of the switch board as the cost of glands will form part of the cable termination.

## 8.0 Bus bars

- 8.1 Bus bars shall be three phase and neutral and of copper or Aluminum alloy as specified and shown on drawings and rated for a temperature rise of 30 deg. Cover the ambient temperature specified, based on insulated conductor rating (IS: 8084-1976). Neutral bars may be of one half the size of the phase bars. The main horizontal bus bars shall be of uniform cross section and rated in accord with the incoming switch. The vertical bus bars for the feeder columns may be rated at 75% of aggregate feeder capacity and shall of be uniform size. Bus bars and interconnections shall be taped with PVC colour coded tape to prevent bar-to-bar accidental shorts. Each bus bar shall be directly and easily accessible on removal of the front cover. Bus bars shall be totally enclosed, shrouded and supported on non-hygroscopes insulator blocks to withstand thermal and dynamic over loads during system short circuits. An earth bus of size 50% of the phase subject to the following maximum and minimum shall be provided. Individual switch components shall be connected with the earth bus through Copper or Aluminum or galvanized steel strip size as shown. All wire connections to bars shall be through lugs, bolts and nuts and spring washers.

	Copper	Aluminium	Galvanized Steel
Minimum	6.5 sq. mm	10 sq. mm	16 sq. mm
Maximum	65 sq. mm	120 sq. mm	200 sq. mm

The minimum size of earth bar in a board shall however be 15x3 Cu or 25x3 Al or equivalent.

## 9.0 Isolators

- 9.1 Isolators shall be fixed on wall on self-supported angle iron framework as required and mounted as near to the motor as possible. Where several motors are installed, isolators, if required, shall be provided at a central location on a common framework.
- 9.2 Painting, earthing and labels shall be provided as generally indicating for MV Switchgear and shown on drawings.

## 10.1 Earthing

- 10.1 All switches panels shall be provided with an earth bar as specified.
- 10.2 Earthing of the switchboards shall be through the equipment earthing system provided in the building with two-earth connection as shown.

## 11.0 Installation

- 11.1 All panels shall be supported on MS channels incorporated in the panel during the fabrication. All such supports shall be prime coated with two finish coats after completion of the work. All panels shall be touched up for damaged painting.
- 11.2 All panels shall be megger phase to phase and phase to neutral using a 1000V megger with all outgoing feeders in closed position. The megger value should not be less than 2.5 megaohms between phases and 1.5 mega ohms between phases and neutral.
- 11.3 Fabrication drawings of all panels shall be approved by the Consulting Engineers before fabrication.
- 12.0 Testing & Inspection
- 12.1 All switchboards shall be factory inspected before finishing and dispatch. Certificate for all routine and type tests for circuit breakers in accordance with the IS: 2516-1963 shall be furnished. In addition, all panels shall be meggered phase to phase and phase to neutral, using a 1000V megger with all switchgear in closed position. The megger value should not be less than 2.5 mega ohms between phases and 1.5 mega ohms between phase and neutral.
- 12.2 All meters shall be calibrated and tested through secondary injection testes.
- 12.3 All field tests shall be witnessed by Bank and recorded.
- 13.0 Mode of measurement:
- 13.1 Panels will each be considered as one unit for the purpose of measurement and shall include the following:
  - i) Incoming and outgoing feeder terminals.
  - ii) Interconnections and controls and instrument wiring with necessary protective fuses.
  - iii) Meters Relays, Indicating lamps, CT's control fuses etc.
  - iv) Supporting structure, sheet steel enclosure.
  - v) Installation and testing.
- 13.2 Isolators shall each be measured as on unit complete with:
  - i) Mounting frame
  - ii) Switch / fuse
- 13.3 Earthing of the Panel / Isolator from the equipment earthing system will be measured separately and paid at unit rates.
- 13.4 Outgoing and incoming feeder terminations will be paid for at the unit rates separately as specified under cabling.

#### **4. MEDIUM VOLTAGE CABLING**

##### **1.0 Scope**

- 1.1 The scope of work shall cover supply, laying connecting, testing and commissioning of low and medium voltage power and control cabling.

##### **2.0 Standards**

2.1 The following standards and rules shall be applicable:

- 1) BS: 6346 PVC insulated mains
- 2) I.E.E. Wiring regulations

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the British Standard Codes of Practice.

### 3.0 Cables

3.1 All cables shall be 1100-Volt grade PVC insulated sheathed with or without steel armoring as specified and with an outer PVC protective sheath. Cables shall have high conductivity stranded Aluminum or Copper conductor and cable core color coded to the Indian Standards.

3.2 All cables shall be new without any kinks or visible damage. The manufacturer's name, insulating material, conductor size and voltage class shall be marked on the surface of the cable every 600 mm centers.

### 4.0 Installation

4.1 Cables shall be laid in the routes marked in the drawings. Where the route is not marked, the Contractor shall mark it out on the drawings and also on the site and obtain the approval of the R.B.I. Engineer before laying the cable. Procurement of cables shall be on the basis of actual site measurements and the quantities shown in the schedule of work shall be regarded as a guide only.

4.2 Cables running indoors shall be laid on walls, ceiling, inside shafts or trenches. Single cables laid shall be fixed directly to walls or ceiling and supported at not more than 500 mm by G.I. spacer & G.I. clamp, cable angle iron support, etc. Where number of cables is run, necessary perforated cable trays if specified shall be provided where shown. Perforated trays shall be steel or Aluminium as specified in the schedule of work and supported on mild steel framework as shown on drawings or as approved. Cables laid in built-up trenches shall be on steel supports. Plastic identification tags shall be provided at every 30 m.

4.3 Cables shall be bent to a radius not less than 12 (twelve) times the overall diameter of the cable or in accordance with the manufacturer's recommendations whichever is higher.

4.4 In the case of cables buried directly in ground, the cable route shall be parallel or perpendicular to roadways, walls etc. Cables shall be laid on an excavated, graded trench, over a sand or soft earth cushion to provide protection against abrasion. Cables shall be protected with brick or cement tiles as shown on drawings. Width of excavated trenches shall be as per drawings. Backfill over buried cables shall be with a minimum earth cover of 600mm. The cables shall be provided with cable markers at every 35 meters and at all loops/points.

4.5 The general arrangement of cable laying is shown on drawings. All cables shall have one length from panel to panel without any joints or splices. Cables shall be identified at end terminations indicating the feeder number and the Panel/Distribution board from where it is being laid. All cable terminations for conductors up to 4 sq. mm may be insertion type and all higher sizes shall be tinned copper crimp type lugs. Cable terminations shall have necessary brass glands. The end termination shall be insulated with a minimum of six half-lapped layers of PVC tape. Cable armoring shall be earthed at both ends.

### 5.0 Testing



5.1 MV cables shall be tested upon installation with a 500V Megger and the following readings established.

- 1) Continuity on all phases.
- 2) Insulation Resistance
  - (a) Between conductors
  - (b) All conductors and ground

All test readings shall be recorded and shall form part of the completion documentation.

6.0 Mode of measurement

6.1 Cables will be measured on the basis of common rate per unit length indoor or outdoor and shall include the following:

For cables laid indoors:

- i) G.I. spacer, Clamp & angle iron cable support.
- ii) Installation, commissioning and testing
- iii) Cable marking

OR

For cable buried underground:

- i) Cables and protective bricks & tiles
- ii) Installation, commissioning & testing
- iii) Cable markers

6.2 Cable trays/racks will be measured on the basis of unit length for individual sizes and shall include.

- i) Perforated trays on M.S. framing ladder wall support or ceiling suspenders.
- ii) Installation and painting in 2 coats of black bituminous paint on one coat of red oxide primer.

6.3 Each cable termination will be measured as one unit for payment. Certain cable sizes are grouped together and rates shall be furnished against each group. The item shall include the following:

- i) Cable glands, lugs, bolts, nuts
- ii) All jointing materials
- iii) Installations, testing and commissioning.
- iv) Earthing the glands.

6.4 For cables buried underground, excavation shall be paid for additionally for the following per unit volume:

- i) Excavation and back filling.
- ii) 6" soft earth cushioning below and above cable.

The cost of laying protective tiles shall be part of cable cost.

## 5. DISTRIBUTION BOARDS

### 1.0 Scope

1.1 The scope of work shall cover the supply installation, testing and commissioning of lighting and power distribution boards. Associated minor civil work required for the erection of the DBs, such as opening in wall, etc., also included in the scope of this contract.

### 2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS: 2675-1983                      Enclosed distribution fuse boards and cutout for voltages not exceeding 1000V
- 2) IS: 375-1963                      Marking and arrangement of Switchgear bus bars main connections and auxiliary wiring.
- 3) IS: 8828-1978                      Miniature circuit Breakers.
- 4) IS: 2607-1976                      Air break isolators for voltages not exceeding 1000V
- 5) IS: 9926-1981                      Fuse wire used in Rewirable type Electric fuses up to 650 Volts
- 6) Indian Electricity Act 1910 and rules issued thereunder.

2.2 All codes and standards mean the latest. Wherever not specified, the installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of Indian Standard.

### 3.0 Distribution Boards

3.1 Distribution boards Factory fabricated & painted along with the controlling MCB's or Isolator as shown shall be fixed in mild steel box with hinged lockable door suitable for recessed mounting in wall. Distribution boards shall be made of 16 SWG sheet duly rust inhibited through a process of degreasing, acid pickling, phosphating and spray painting to an approved colour over a coat of red oxide primer.

Three phase boards shall have phase barriers and a wire channel on three sides generally as shown on drawings. Neutral bars shall be solid tinned copper bars with tapped holes and chase headed screws. For 3 phase DBs 3mm independent neutral bars shall be provided. All DBs shall be internally pre-wired using copper insulated PVC wires brought to a terminal strip of appropriate rating for outgoing feeders. All Blank space shall be provided with suitable PVC Blank plate.

3.2 Conduit knockout shall be provided as required/shown on drawings and the entire board shall be rendered dust and vermin proof with necessary sealing gaskets.

3.3 MCBs shall have quick make-and-break non-welding self-wiping silver alloy contacts for SKA short circuit both the manual and automatic operation. Each pole of the breaker shall be provided with inverse time thermal over load and instantons over current tripping elements, with trip-free mechanism. In case of multiple breakers, the tripping must be on all the poles and operating handle shall be common. Breakers must conform to BS: 3871 with facility for locking in OFF position. Pressure clamp terminals for standard/solid conductor insertion are acceptable up to 4 sq. mm Aluminium or 2.5 sq. mm copper

and for higher ratings, the terminals shall be suitably shrouded. Wherever MCB isolators are specified they are without the tripping elements.

3.4 Fuses shall be HRC link type or rewire-able with necessary fuse carriers and with S.C. rating of not less than 50KA. Bottle type fuses are not acceptable. Fuse carrier terminals shall be suitably shrouded.

3.5 Distribution boards shall have HRC/rewire-able fuses as shown on the schedule and drawings. Board shall meet with the requirements of IS: 2675 and marking arrangement of bus bars shall be in accordance with IS: 375. Bus bars shall be suitable for the incomer switch rating and sized for a temperature rise of 30deg Cover the ambient. Each board shall have two separate earthing terminals. Circuit diagram indicating the load distribution shall be pasted on the inside of the DB as instructed. One earthing terminal for single phase and two terminals for 3 phase DBs shall be provided with an earth strip connecting the studs and the outgoing earth bar.

3.6 In the case of MCB distribution boards, the back-up fuses wherever shown shall be not less than 63A with a delayed characteristic and a minimum piercing time of 0.5 sec at 9 KA fault current.

3.7 All outgoing feeders shall terminate on terminal strip which in turn is power wired to the MCB/Fuse base by means of insulated single conductor copper wires as follows:

Up to 15 A - 2.5 Sq. mm

25 A - 4.0 Sq. mm

63 A - 6.0 Sq. mm

3.8 Each DB shall have indicating lamps preferably neon type denoting power availability in the board after the switch. Indicating lamps shall be completely with fuses.

#### 4.0 Installation & Testing

4.1 All distribution boards shall be mounted on wall or recessed, with necessary angle iron framework. All mounting frames shall have one prime coat and two finish coats after the completion of the work. All distribution boards shall be touched up for damaged painting.

4.2 All boards shall be meggered phase to phase and to neutral using 1000V megger with all switches in closed position. The megger value should not be less than 2.5 mega ohms between phase and 1.5 mega ohms between phase and neutral.

4.3 Fabrication drawings of all boards shall be approved by the consultants before fabrication and be inspected before dispatch, unless waived in writing.

#### 5.0 Mode of measurement

5.1 The distribution board complete with the various components specified, indicating lamps, supporting frame, internal wiring, erection, etc., will be treated as one unit for the purpose of measurement and payment.

5.2 DBs with dimmers shall be separately counted.

### 6. **EARTHING**

#### 1.0 Scope

1.1 The Scope of work shall cover supply and laying of Aluminium/Copper earth strips and connecting the power panels, DBs and switchboards.

## 2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS: 3043-1987 Code of Practice for earthing.
- 2) Indian Electricity Act and Rules.

2.2 All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Code of Practice or the British Standard Codes of Practice in the absence of Indian Standards.

## 3.0 Plate Earthing Station

3.1 The substation earthing shall be with copper plate earthing station unless otherwise specified.

3.2 The earthing station shall be as shown on the drawing. The earth electrodes shall be 600x600x3 mm copper plate. The earth resistance shall be maintained with a suitable soil treatment and watering arrangement as shown on drawings. Excavated soft soil shall be thoroughly mixed with 6 percent by weight of common salt with 10 percent by weight of water and fill the earth pit.

3.3 The resistance of each earth station should not exceed 5 ohms.

3.4 The earth lead shall be connected to the earth plate through Copper / Brass bolts as shown on the drawing.

## 4.0 Pipe Earthing Station

4.1 The pipe earth station shall be as shown on the drawing and shall be used for equipment earth grid. The earth electrodes shall be 2.5 m long 50mm dia 5mm thick galvanized steel pipe. The earth resistance shall be maintained with a suitable soil treatment as shown on drawings and as per plate electrodes.

4.2 The resistance of each earth station should not exceed 5 ohms.

4.3 The earth lead shall be fixed to the pipe with a clamp & safety set screws. The clamps shall be permanently accessible.

## 5.0 Earth leads and connections

5.1 Earth lead shall be bear Copper or Aluminium or galvanized steel as specified sizes shown on drawings. Copper lead shall have a phosphor content of not over 0.15 percent. Aluminium and galvanized steel buried in ground shall be protected with bitumen and hessian wrap or polythene faced hessian and bitumen coating. At road crossing necessary Hume pipes shall be lead. Earth lead run on surface of wall or ceiling shall be fixed on saddles or wall so that the strip is at least 6 mm away from the wall surface.

5.2 All earth strips shall be jointed as follows:

Aluminium: Riveting with 2 Nos. 100 mm long bimetal fish plates using copper rivets.

Galvanized steel : Lap welding with 50mm minimum lap.

5.3 All strips shall be run on walls/beams with 6mm thick galvanized steel earth saddles at 500 mm center to center.

## 6.0 Equipment Earthing

6.1 All apparatus and equipment transmitting or utilizing power shall be earthed in the following manner. Copper earth wires shall be used where copper wires are specified. Aluminium wires may be used where aluminium phase wires are specified unless otherwise indicated in the schedule of work and drawings.

## 6.2 Power transmission apparatus

6.2 1) Metallic conduits shall not be acceptable as an earth continuity conductor. A separate insulated / bare earth continuity conductor of size related to phase conductor shall be provided as follow:

Cross-section in sq. mm			
Size of phase conductor	Copper	Aluminium	Galvanized steel
Up to 16	< same >		1.55
More than 16 up to 35	< 16 >		32
Over 35	< as shown in drawings >		
Minimum (bare)	2.5	4	6
Minimum (enclosed)	2.5	2.5	-

The earth continuity conductor may be drawn inside the conduit in which case, it should be insulated.

6.2 2) Non-metallic conduit shall have an insulated earth continuity conductor of the same size as for metallic conduit. All metal junction and switch boxes shall have an inside earth stud to which the earth conductor shall be connected. The earth conductor shall be distinctly coloured Green and Yellow for easy identification.

6.2 3) Armoured cables shall be earthed by 2 distance earth connections to the armouring at both the ends. In multiple cables earthing a panel / DB, the cable joints shall be bonded together using a bonding wire selected on the basis of the largest size of cable in the group.

6.2 4) In the case of unarmoured cable, an earth continuity conductor shall either be run outside along the cable or should form a separate insulated core of the cable.

6.2 5) 3 pH Power panels and distribution boards shall have 2 distinct earth connections of the size correlated to the incoming cable size. In case of 1 pH DBs a single earth connection is adequate. Similarly, for 3 pH and 1 pH isolating switches there shall be 2 and 1 earth connections respectively, size being correlated to the incoming cable.

## 7.0 Testing

7.1 The following earth resistance values shall be measured with an approved earth megger and recorded.

- 1) Each earthing station.
- 2) Earthing system as a whole
- 3) Earth continuity conductor.

**Important:**

- (i) The details / description mentioned in the tender Part-I & Part-II shall supersede the drawings.
- (ii) Interior Designer or Architect wherever mentioned, shall mean the Bank's Architect.

Place:

Signature of Contractor

Date:

Name and designation:

Name of firm with Seal:

## Section J

### **APPROVED MAKES OF MATERIALS / EQUIPMENTS - Electrical Work**

**Note:**

1. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material or engaging any of the specialized agencies. The Contractor shall make a detailed submittal with catalogues and highlighted proposed specifications, as well as full details of the works executed by the specialized agency, as specified.
2. In case of non-availability of the brand specified in the contract the Contractor shall approach Engineer-in-charge to acquiring alternate equivalent brand of the material subject to submission of documentary evidence of non- availability of the specified brand. No claim on this account shall be entertained.

Sr. No.	Item/ Material	Make/ Name of the manufacturer
1	MCBs, ELCBs and MCB DBs	MDS LEGRAND, HAGER, SIEMENS, L & T
2	PVC INSULATED ARMOURED CABLES (Cu)	POLYCAB, CCI, FINOLEX, RR CABLE
3	FRLS COPPER CONDUCTOR PVC INSULATED WIRES	POLYCAB, FINOLEX, R R Cables
4	PVC CONDUITS (1.5 mm THICK) & ACCESSORIES	PRECISION/AKG/SANCO/KINJAL
5	SWITCHES/PLUG SOCKET, FAN REGULATOR, TEL. SOCKET, INFORMATION OUTLET MODULAR TYPE	MDS LEGRAND, CPL OBSESSION, MKEI, ANCHOR, ABB, HAGER
6	TEL WIRES AND CABLES	POLYCAB, DELTON, ITL, FINOLEX
7	LIGHT FITTINGS, TUBES AND LAMPS	WIPRO, PHILIPS (SIGNIFY), CROMPTON
8	DOUBLE COMPRESSION TYPE CABLE GLAND, SOCKETS CRIMP TYPE	DOWEL'S, SIEMENS, COMET
9	RJ 6 CABLE	AVAYA, D-LINK, POLYCAB, FINOLEX, DELTRON

Sr. No.	Item/ Material	Make/ Name of the manufacturer
10	ANGLE/BATTEN & CEILING ROSE	ABB/ANCHOR/HAGER

Place:

Signature of Contractor

Date:

Name and designation:

Name of firm with Seal:





**Reserve Bank of India  
Estate Department  
Bhubaneswar**

**Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**

**e-Tender no: RBI/Bhubaneswar Regional Office/Estate/38/25-26/ET/738**

**Section K**

**Unpriced bill of quantities**

Name of Contractor \_\_\_\_\_

Address \_\_\_\_\_

**Close Bid Date: - January 02, 2026, up to 14.00 Hrs.**

**Unpriced bill of quantities**

**Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building,  
Bhubaneswar**

Sl. No.	Description of Work / Item(s)	Quantity	Units
	Internal Electrification		
	<b>Lighting Circuit</b>		
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm HR-FRLSH insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc. as required.		
(a)	Group-A	3.00	No
(b)	Group-B	5.00	No
(c)	Group-C	10.00	No
2	Wiring for circuit/ submain wiring along with earth wire with the following sizes of HR-FRLSH insulated copper single core cable in surface/ recessed medium class PVC conduit as required		
(a)	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	450.00	Mtr
	<b>Power Circuit</b>		
3	Wiring for circuit/ submain wiring along with earth wire with the following sizes of HR-FRLSH insulated copper single core cable in surface/ recessed medium class PVC conduit as required		
(a)	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	500.00	Mtr
(b)	2 X 4.0 sq. mm + 1 X 4.0 sq. mm earth wire	100.00	Mtr
4	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	25.00	No
5	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	25.00	No

6	Supply, Installation, Testing & Commissioning (SITC) of following modular switch, socket, modules on the existing modular plate & switch box including connections but excluding modular plate, box etc. as required.		
(a)	5/6 A Switch	25.00	No
(b)	15/16 A switch	25.00	No
(c)	3 pin 5/6 A socket outlet	25.00	No
(d)	6 pin 15/16 A socket outlet	25.00	No
7	Supply and laying of speaker cable Two pair, 2-core, 1.5 sqmm for PA system	150.00	Meter
8	<b>Cable and Earthing</b>		
(a)	SITC of 4 core 16 sq.mm, 1.1 KV grade, XLPE, PVC sheathed armoured copper cable along with termination laid in surface manner on walls by fixing with heavy duty GI saddles etc	110.00	Meter
(b)	SITC of 4 core 10 sq.mm, 1.1 KV grade, XLPE, PVC sheathed armoured copper cable along with termination laid in surface manner on walls by fixing with heavy duty GI saddles etc	40.00	Meter
(c)	Supplying and making end termination with double brass compression gland and copper lugs of PVC insulated and PVC sheathed /XLPE copper conductor cable of 4 core 16 sq.mm 1.1 KV grade as required.	1.00	set
(d)	Supplying and making end termination with double brass compression gland and copper lugs of PVC insulated and PVC sheathed /XLPE copper conductor cable of 4 core 10 sq.mm 1.1 KV grade as required.	2.00	set
(e)	Providing and fixing 12 SWG dia GI wire on surface or in recess for cable earthing along with the existing surface / recess conduit / submain cable as reqd.	320.00	Meter
(f)	Supply and laying of 25 mm X 5 mm copper flat on surface or in recess for cable earthing along with the existing surface / recess conduit / submain cable as reqd. as per direction of Engineer-in-Charge.	30.00	Meter
9	<b>Light fixtures</b>		
(a)	Installation, Testing and Commissioning of pre-wired, fluorescent fitting / compact fluorescent/ LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS/HFFR PVC insulated, copper conductor, single core cable and earthing etc. as required.	70.00	No

(b)	Supply of recess mounted 15-watt LED downlight having Aluminium housing comprising of LED's with White powder coated housing for Sleek and Seamless aesthetics. Opal diffuser for uniform lighting. The Luminaire shall be designed to emit at least 1875 nominal lumens with system efficacy of at least 125lumen/watt. Luminaire should have CRI > 80, and CCT of 5700K.	70.00	No
10	<b>Cable Trays</b>		
	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.		
(a)	150 mm width X 50 mm depth X 1.6 mm thickness	70.00	Meter
11	<b>Electrical Panel</b>		
(a)	Supply, installation, testing and commissioning of wall mounted outdoor (IP65) powder coated with seven tank treatment 16 SWG electrical panel complete with all internal control wire /suitable size of copper earth strip, cable chamber etc. as directed by Bank's Engineer.	1.00	Set
	(a) Main Incomer - 63 A 4 pole MCCB with OL/SC release 415 V, 16 kA.		
	(b) 63 A TPN Copper busbar		
	(c) Distribution feeders with neutral link –		
	(i) 40 A, 100 mA, 4 pole RCCB (2 nos.)		

Place:  
Date:

Signature and Seal of the contractor  
Name & address



**Reserve Bank of India  
Estate Department  
Bhubaneswar**

**Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**

**e-Tender no: RBI/Bhubaneswar Regional Office/Estate/38/25-26/ET/738**

**Part –II (Price-Bid)**

Name of Contractor\_\_\_\_\_

Address \_\_\_\_\_

**Close Bid Date: - January 02, 2026, up to 14.00 Hrs.**

- 1. The bidders must submit the bid via online mode only through MSTC NEW COMMON PORTAL.***
- 2. Bidders are advised to not to quote the amount in this document. All amounts must be quoted online in MSTC Portal. All the items in the charts are shown as representational purpose only.***
- 3. The quoted rate should be including GST.***



**Reserve Bank of India  
Estate Department  
Bhubaneswar**

**“Tender for Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar”**

**Preamble**

The rates quoted shall include the following:

1. The item and quantities indicated in the schedule of quantity are tentative and as per need of work and as decided by the Bank certain items/ quantities may not be required to be executed or may be executed with reduction in quantities to any extent. The contractor must execute items/quantities as per direction of Bank and no claim on this account whatsoever it may will be entertained by the Bank in respect of non-operation of items/reduction in quantities.
2. Charges required to comply with all the provision under contract labor Act 1970(including subsequent revision if any) and rules therein.
3. Providing for all costs and charges incurred by the contractor complying with all safety health and welfare regulations, appertaining to staff and work people employed on the site.
4. Keeping the site free from debris arising from the works during the renovation/construction/repair/ period and leave the site free from debris on completion of work to the satisfaction of the Employer.
5. Providing electric lights, maintain system, all as required for the works and remove the temporary installations on completion.
6. Making necessary holes/pockets/chases in masonry/ concrete/floors/walls/ partition etc. and making good the damages matching to the surrounding specification at no extra cost to the Bank.
7. Providing and erecting necessary scaffolding and providing access for work area as may be required for carrying out the repair works and for inspection of work at all levels and heights and removal the same after satisfactory completion of work.

8. Charges for Inspecting the site and get acquainted with pertaining works just idea for works to be carried out before quoting the rates.
9. Necessary charges towards providing service of a qualified supervisor on the work site during entire working hours and shall be who shall be available at work site to receive instructions from the Bank and act accordingly.
10. Contractors will have to submit a time bound programme just after the award of the work and get it approved from the Bank before commencement of work.
11. The rates shall also include the removal and carting away all debris, etc from Bank's premises.
12. Contractors to provide the original invoices for every supply of materials for Bank's verifications. If it is not provided and the materials found not as per specifications/ approved make shall not be measured for the payment.
13. Curing the items of work involving the use of cement and waterproof paints.
14. The rates should be inclusive of all relevant taxes, GST, INSURANCE transportation charge etc. and for all the accessories required for the completion of the work. No extra amount will be paid for whatsoever. All fluctuations in prices of all materials & labor shall be borne by the contractor.

Place:

Signature and Seal of the contractor

Name & address

### Schedule of Quantities

**Name of the Work: Electrical works for Auditorium at 2nd Floor, Main Office Building, Bhubaneswar**

Sl. No.	Description of Work / Item(s)	Quantity	Units	Rate including GST	Amount including GST
	Internal Electrification				
	<b>Lighting Circuit</b>				
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm HR-FRLSH insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc. as required.			<b>Price bid should be quoted only in MSTC portal only</b>	
(a)	Group-A	3.00	No		
(b)	Group-B	5.00	No		
(c)	Group-C	10.00	No		
2	Wiring for circuit/ submain wiring along with earth wire with the following sizes of HR-FRLSH insulated copper single core cable in surface/ recessed medium class PVC conduit as required				
(a)	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	450.00	Mtr		
	<b>Power Circuit</b>				
3	Wiring for circuit/ submain wiring along with earth wire with the following sizes of HR-FRLSH insulated copper single core cable in surface/ recessed medium class PVC conduit as required				
(a)	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	500.00	Mtr		
(b)	2 X 4.0 sq. mm + 1 X 4.0 sq. mm earth wire	100.00	Mtr		
4	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket	25.00	No		



	outlet and 5/6 amps modular switch, connection etc. as required.				
5	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	25.00	No		
6	Supply, Installation, Testing & Commissioning (SITC) of following modular switch, socket, modules on the existing modular plate & switch box including connections but excluding modular plate, box etc. as required.				
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(c)	3 pin 5/6 A socket outlet	25.00	No		
(d)	6 pin 15/16 A socket outlet	25.00	No		
7	Supply and laying of speaker cable Two pair, 2-core, 1.5 sqmm for PA system	150.00	Meter		
8	<b>Cable and Earthing</b>				
(a)	SITC of 4 core 16 sq.mm, 1.1 KV grade, XLPE, PVC sheathed armoured copper cable along with termination laid in surface manner on walls by fixing with heavy duty GI saddles etc	110.00	Meter		
(b)	SITC of 4 core 10 sq.mm, 1.1 KV grade, XLPE, PVC sheathed armoured copper cable along with termination laid in surface manner on walls by fixing with heavy duty GI saddles etc	40.00	Meter		
(c)	Supplying and making end termination with double brass compression gland and copper lugs of PVC insulated and PVC sheathed /XLPE copper conductor cable of 4 core 16 sq.mm 1.1 KV grade as required.	1.00	set		

(d)	Supplying and making end termination with double brass compression gland and copper lugs of PVC insulated and PVC sheathed /XLPE copper conductor cable of 4 core 10 sq.mm 1.1 KV grade as required.	2.00	set		
(e)	Providing and fixing 12 SWG dia GI wire on surface or in recess for cable earthing along with the existing surface / recess conduit / submain cable as reqd.	320.00	Meter		
(f)	Supply and laying of 25 mm X 5 mm copper flat on surface or in recess for cable earthing along with the existing surface / recess conduit / submain cable as reqd. as per direction of Engineer-in-Charge.	30.00	Meter		
9	<b>Light fixtures</b>				
(a)	Installation, Testing and Commissioning of pre-wired, fluorescent fitting / compact fluorescent/ LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS/HFFR PVC insulated, copper conductor, single core cable and earthing etc. as required.	70.00	No		
(b)	Supply of recess mounted 15-watt LED downlight having Aluminium housing comprising of LED's with White powder coated housing for Sleek and Seamless aesthetics. Opal diffuser for uniform lighting. The Luminaire shall be designed to emit at least 1875 nominal lumens with system efficacy of at least 125lumen/watt.Luminaire should have CRI > 80, and CCT of 5700K.	70.00	No		
10	<b>Cable Trays</b>				
	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastener etc as required.				

(a)	150 mm width X 50 mm depth X 1.6 mm thickness	70.00	Meter		
11	<b>Electrical Panel</b>				
(a)	Supply, installation, testing and commissioning of wall mounted outdoor (IP65) powder coated with seven tank treatment 16 SWG electrical panel complete with all internal control wire /suitable size of copper earth strip, cable chamber etc. as directed by Bank's Engineer.	1.00	Set		
	(a) Main Incomer - 63 A 4 pole MCCB with OL/SC release 415 V, 16 kA.				
	(b) 63 A TPN Copper busbar				
	(c) Distribution feeders with neutral link –				
	(i) 40 A, 100 mA, 4 pole RCCB (2 nos.)				

**Note- Price bid should be quoted only in MSTC portal only. If the price bid is quoted in Part-I of the tender the bid is liable to be rejected.**

**Place:**

**Signature and Seal of the contractor**

**Date:**

**Name & address**