

TENDER DOCUMENT

FOR

ELECTRICAL WORKS OF BALANGIR BRANCH OF INDIAN BANK AT BALANGIR

CLIENT

ARCHITECT

INDIAN BANK

DESIGNERS FORUM

N2/64, IRC VILLAGE,
BHUBANESWAR.

Ph No- 0674 -2556266,
2558056

Tender Paper issued to

NOTICE INVITING TENDER

INDIAN BANK invites sealed tenders from the empanelled contractors on item rate basis for the Electrical works of INDIAN BANK BALANGIR Branch, BALANGIR.

Details of tenders as under :

- | | | | |
|-----|---|---|---|
| 01. | Name of the work | : | Electrical works of INDIAN BANK
BALANGIR Branch, BALANGIR |
| 02. | Time allowed for completion | : | 15 (Fifteen) Days |
| 03. | Earnest Money Deposit | : | Rs. 2000.00 |
| 04. | Security Deposit | : | 5% of the value of the contract
amount. |
| 05. | Cost of tender document. | : | Rs 500.00 |
| 06. | Last Date of sale of Tender Paper | : | 4.07.2011 upto 17.00 Hrs |
| 07. | Last date and time of submission of
tenders. | : | 5.07.2011 upto 14.00 Hrs. |
| 08. | Date and time of opening of tenders | : | 5.07.2011 at 15.30 Hrs. |
| 09. | Address at which the tender are to
be submitted & opened | : | Deputy General Manager
INDIAN BANK,
Zonal Office
Indian Bank Building, B-2, East,
Sahid Nagar, Bhubaneswar. |
| 10. | Place of opening of tenders | : | Same as above |
| 11. | Defect Liability Period | : | 1 year from the date of virtual
Completion |
| 12. | Validity of offer. | : | 3 (Three) months |
| 13. | Liquidated Damages. | : | 0.5% of the Tender value per week
subject to maximum of 5% of the
accepted tender amount. |

In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.

INDIAN BANK reserves the right to accept/reject any/all tenders without assigning any reasons.

**For and behalf of
INDIAN BANK**

ANNEXURE TO "INSTRUCTIONS TO TENDERERS"

- | | | | |
|----|--|---|---|
| 1. | SITE OF WORKS | : | INDIAN BANK,
BALANGIR |
| 2. | SUPERScription ON THE
SEALED TENDER COVER | : | Electrical work of INDIAN BANK
BALANGIR Branch,
BALANGIR |
| 3. | RECEIVING OFFICER OF
THE EMPLOYER | : | Chief Manager,Premises
INDIAN BANK, Zonal Office,
Bhubaneswar |
| 4. | PERIOD OF FINAL
MEASUREMENT | : | 15 (Fifteen) Days |
| 5. | DATE OF COMMENCEMENT | : | Within 7 days from the date of
receiving work order or the date
of handing over the site which
ever is earlier |
| 6. | VALUE OF WORKS FOR
INTERIM CERTIFICATE | : | Rs 1.00 Lacs |
| 7. | PERIOD OF HONOURING
INTERIM CERTIFICATE | : | 1(One) week from the date of the
receipt of the certificate from the
Architect |
| 8. | PERIOD OF HONOURING
FINAL CERTIFICATE | : | 2(Two) week from the date of the
receipt of the certificate from the
Architect |
| 9. | TOTAL SECURITY DEPOSIT
(EMD+ISD+RM) | : | As per Clause-9 of General
conditions of contract |

**SPECIAL INSTRUCTIONS IN ADDITION
TO NOTICE INVITING TO TENDER**

1. The earnest money shall be deposited in the form of a crossed A/c Payee Demand Draft/Banker's Cheque from a Nationalised Bank in favour of INDIAN BANK & payable at Bhubaneswar. Tender without earnest money in proper form shall be rejected.
2. Tenders are to be submitted on the printed forms issued by us. The Contractor should quote the rates in figures as well as in words. Special care should be taken to write the rates in figures only in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the words "Rs." should be written before the figure of rupees and words "P" after the decimal figures e.g. Rs.2.15 "P" and in case of words, the word "Rupees" should precede and the word "Paise" should be written at the end, unless the rate is in whole rupees and followed by the words "only" it should invariably be up to two decimal places. While quoting the rate in schedule of quantities, the words "Only" should be written closely following the amount and it should not be written in the next line. The amount of each item shall be worked out and the requisite total shall be given. All corrections shall be attested by the initials of the Tenderers. In case of any discrepancy/difference, the rate quoted in words in the original copy of the tender and the amount derived there from shall prevail and be binding. If the rates in words are not written, the Tender will be rejected.
3. Tenders which should always be placed in sealed cover with the name of the project and date of opening of tender written on the envelopes will be received by the Chief Manager, INDIAN BANK, Zonal Office, Bhubaneswar, as mentioned earlier in a sealed envelope of appropriate size containing the documents as under :-

ENVELOPE MARKED No.1

Envelope marked No.1 shall contain the following Documents:

1. Forwarding letter without mentioning the cost of Tender value arrived at with quoted rates.
2. Earnest money deposit furnished in the form of Crossed Demand Draft/Banker's Cheque drawn in favour of INDIAN BANK and payable at Bhubaneswar for the amount indicated in the Notice of Invitation to Tender.
3. Any comment which the tenderer desires to make in the form of a statement as brief as possible and with reference to the items.
4. Latest Photocopies of up to date VAT/TIN Clearance Certificate, VAT, TIN, PAN & Contract License.

ENVELOPE MARKED No.2

Envelope marked No.2 shall contain the Priced Tender Volume-II i.e. Bill of Quantities in duplicate - Marked "ORIGINAL" & "DUPLICATE", on the body of the tender paper issued in which case the tender may be liable for rejection.

ENVELOPE MARKED No.3

Envelope marked No. 1 & 2 shall be put in large envelope of adequate size marked No. 3, which shall be properly sealed. This envelope which shall be endorsed on the outside face "TENDER FOR ELECTRICAL WORKS OF INDIAN BANK BALANGIR BRANCH, BALANGIR".

Outer envelope (Marked No.3) containing the separate tender documents as mentioned herein above shall be opened in the Office of the Chief Manager, as mentioned earlier in the presence of the representatives of the Architect and of those tenderers who choose to remain present.

Envelope 1 containing Earnest money deposit shall be opened first and if the Earnest money deposit is not found as prescribed the tender shall be rejected and other sealed envelope will be returned unopened to the representatives of the concerned tender if present. Then the covering letter without mentioning the tender amount arrived from the quoted rates and other documents as specified herein above will then scrutinized and comments/conditions which has financial implication will be evaluated by the Architect. Based on the recommendations and evaluation of the Architect the employer may discuss comments/conditions with the tenderers.

Envelope 2 containing the priced tender volumes in original and duplicate will be opened on the same day which is mentioned earlier.

The acceptance of the tender will be made by the Owner who does not bind himself to accept the lowest or any other tenderer or part thereof. No reasons will be furnished for acceptance and rejection of the tender.

FORM OF TENDER

Dear Sir/s

Ref: Electrical works of INDIAN BANK BALANGIR Branch, BALANGIR.

I/We refer to the tender notice issued by your Consultant M/s DESIGNERS FORUM ,
N2/64 , I.R.C VILLAGE , BHUBANESWAR .

On your behalf for the _____
_____ in connection
with the above

1. I/We do hereby offer to perform and maintain the works in conformity Bill of Quantities for the sum of Rs..... Rupees.....) only at the respective rates quoted in the bill of quantities.
2. I/We have satisfied myself/ourselves as to the site conditions examined the drawings and all aspects of the tender conditions subject to above, I/We do hereby agree should this tender be accepted in whole of part of :
 - a. Abide by and fulfill all the terms and provisions of the said conditions annexed hereto:
 - b. Complete the works within..... as stipulated in two or three shifts if considered necessary by the Consultants at no extra cost to the Owner.
3. I/We have deposited the earnest money of Rs ----- which we note will not bear any interest and is liable to forfeiture.
 - i) If the offer is withdrawn within the validity period of acceptance.
or
 - ii) If the contract is not executed with 7 days from award of contract.
or
 - iii) The acceptance of this tender shall constitute a binding of contract and any failure as mentioned in Clause.4 shall constitute a breach of contract by us & the tender accepting authority shall be entitled to have the work executed at our risk and cost and to claim extra cost/expenditure incurred by them from us.
4. Unless and until a formal agreement is prepared and executed this tender together with your written acceptance thereof shall constitute as a binding contract.

5. I/We understand that you are not bound to accept the lowest any tender received.
6. I/We have independently considered the amount of liquidated damages in the Appendix to the General conditions of the Contract and agree that it represents fair estimate of the loss likely to be suffered by you in the event of the works not being completed in time.
7. Our Bankers are:-
 - i)
 - ii)

The names of Partners/Directors of the firm Authorised to sign

or Yours faithfully,

Name of person having power of attorney to sign the contract.
(Certified true copy of the power of attorney should be attached).

Signature of the
Contractor.

Signature and address of witness.

1.

2.

INSTRUCTIONS TO TENDERERS

CL1. EXTENT AND SCOPE OF THE CONTRACT

- i) The works under this contract are described in the annexure here-in-after and referred to in the Articles of Agreement hereinafter in accordance with the specifications, schedule of items and quantities, drawings and any other instructions that may be issued and modifications made by the Architect/Employer from time to time as per provisions in the contract.
- ii) The Contract comprises the construction, completion and maintenance of the works and the provisions of all labour, materials constructional plants temporary works and everything (whether of a temporary or permanent nature) required in and for such works so far as the necessity of providing the same is specified in or reasonably to be inferred from the contract.
- iii) Payment to the contractors will be against items of work as included and briefly described in the schedule of quantities (Including that may be subsequently required for additional or altered items or works) and on the basis of rates and prices included in the contract. All expenses of the contractor to fulfill & his obligation as per provisions of the contract shall be deemed to have been fully included in such rates and shall not be paid for separately.

CL2. SITE AND SITE VISIT

- i) The location of the site of works is described in the annexure hereinafter.
- ii) The tenderer must obtain for himself at his own expense and responsibility all the information that may affect his rates and or other wise necessary for submitting a tender and examine the drawings and schedule of quantities etc. for any clarification he may require before submitting the tender.

The tenderer shall visit the site and thoroughly acquaint themselves with the nature and details of the work involved and special requirement of the case facilities of transport access & storage for material and removal of rubbish cost of carriage freight & other charges shall allow and provide in their tenders for any special difficulties in carrying out the work although these may not be mentioned in the specification.

CL3. LAND FOR CONTRACTOR'S ESTABLISHMENT

For the purpose of construction of contractor's store yard gowdown site office and ancillaries the contractor may utilize portion of the land belonging to the employer at such location as would not interfere with the execution of the works. For all these the contractor shall have to obtain permission of the Architect/Employer.

The Contractor shall for this purpose submit to the Architect/Employer for his approval a plan of the proposed layouts for the site facilities. The Architect/Employer reserves the right to alter and modify the Contractor's

proposal as he may deem fit. The Contractor may arrange at his own cost lands for the said purpose from Municipalities, local bodies or other authorities if so required on terms of as they may prescribe but this is subject to approval of Architect/Employer.

CL.4 WATER:

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

If Contractor uses water/Electrical (Power) from the source of the employer, recoveries at the rate of 0.5% (Half percent) for water charges and 0.25% (Point two five percent) for electricity consumption charges shall be effected from the running account bills of the contractor from time to time.

CL.5 POWER

The Contractor shall at his own cost arrange for necessary power for construction and lighting for the entire period of contract. If power is available in the area the Contractor shall make his own arrangement to obtain necessary connections maintains an efficient service of electrical service of electrical lights and power and shall pay for all requisite for the same.

The Employer as well as the Architect/Employer shall give all the recommendations necessary to obtain power and water connection from the concerned authorities but the responsibilities for obtaining the same shall rest with the Contractor. If any other Contractor appointed by the employer is required to use water and power he shall be allowed to use the same and make temporary connection from the supply arranged by the Contractor rates, terms and conditions mutually agreed upon both, failing which at rates, terms and conditions that may be decided by the Architect/Employer.

If Contractor uses water/Electricity (Power) from the source of the employer, recoveries at the rate of 0.5% (Half percent) for water charges and 0.25% (Point two five percent) for electricity consumption charges shall be affected from the running account bill of the Contractor from time to time.

CL.6 FIRE FIGHTING ARRANGEMENT :

The Contractor shall at his own expenses provide at suitable prominent and easily accessible places requisite number of fire extinguishers and buckets some filled with sand and some with water.

CL.7 FIRST AID FACILITIES

The Contractor shall at his own expense arrange to ensure availability of medical attendance promptly when necessary; he shall provide equipped first aid station in charge of qualified person at suitable locations within easy reach of the workmen and staff. The Contractor shall also provide for transport of serious cases to the nearest hospital.

CL.8 REPORTS AND RETURNS

Contractor shall maintain at site records of progress with regard to the works carried out, labour engaged and construction equipment deployed. These will be used as the basis for preparation of fortnightly return which are to be submitted to the Architect/Employer regularly in the form as indicated in the progress report forms. These daily records shall be made accessible to the Architect/Employer as and when required by him. Enlarged progress photographs are also to be submitted as and when advised by the Architect/Employer.

CL.9 SITE BOOK

For the purpose of quick communication the Contractor should maintain and preserve at site a book with machine numbered pages in triplicate. Any instruction/advice given and recorded in the site order book by the Consultant/Employer shall be considered as a notice served on the Contractor in terms of clause 6 of the general condition of contract.

CL.10 RATES ALL INCLUSIVE

The rates shall be inclusive of all duties and taxes contract sales tax, service tax, turnover tax/excise duty, octroi and only other tax/duty or levy levied by the Central Govt., State Govt. and local authority. The rate quoted shall be deemed to be for the finished item of work to be measured at site and shall be inclusive of cost of all materials, labour, power and all that is necessary to conform to the general conditions special conditions and all incidentals so far as the necessity for providing the same is specified in or is reasonably inferred from the contract as also all overhead and profits. No extra claims in any means due to increase rates etc. will be entertained.

CL.11 ITEMS RATE TENDER

The tenderer should note that the tender is to be strictly on the item rate basis and his attention is specifically drawn to the fact that the rate for each individual item should be correct workable (abnormal rate may cause to forfeit the E.M.D.) irrespective of the quantity actually done notwithstanding the quantity stated in the schedule of quantities.

CL.12 SEALED TENDERERS AND EARNEST MONEY

- i. Sealed tenders in duplicate superscribed and addressed in the same manner given in annexure hereinafter and as described in the Notice Inviting tender hereinbefore shall be sent so as to reach the receiving office within the stipulated time limit mentioned in the annexure hereinafter.
- ii. The earnest money deposited will not carry any interest and will be returned to the unsuccessful tenderers at the appropriate time.

CL.13 EXECUTION OF THE CONTRACT

- i. The successful tenderer will be notified in writing of the acceptance of his tender.
- ii. Such written acceptance by the Owner of a Tender will constitute a binding contract between the Owner and the tenderer who shall execute the formal contract agreement within 7 days from the date of receipt of the letter of acceptance.

and

Forthwith take all steps and fulfill all his obligations as required by the Contract.

CL.14 COMPLETION INVENTORY

The Contractor while reporting completion should also furnish inventory of all fittings fixed by him in the works.

- CL.15 The following drawings for the purpose of tender only have been attached hereto. These are to be signed and submitted along with the tender.

Drawing Nos :--

FORM OF AGREEMENT

ARTICLE OF AGREEMENT made this ----- day of 2011 between INDIAN BANK, a company incorporate under the INDIAN BANK Act 1955, having its Head Office at 66, Rajaji Salai, Chennai-600001 & its ZONAL OFFICE at Bhubaneswar (Herein after referred to as "THE OWNER" which expression shall include its successor and assign) of the ONE PART AND M/s..... having its registered office at..... (herein referred to as the "CONTRACTOR" of the OTHER PART WHEREAS the Owner is desirous of *Electrical works of INDIAN BANK BALANGIR Branch, BALANGIR* as stated herein before in Clause 1 in the Annexure to the instruction to the Tenderer (herein called the "WORKS")

AND WHEREAS the Owner in order to effectively carryout the said works at BALANGIR engaged M/s DESIGNERS FORUM , N2/64 , I.R.C VILLAGE , BHUBANESWAR .

(Hereinafter referred to as the "ARCHITECT/CONSULTANT") to prepare Electrical works of INDIAN BANK BALANGIR Branch, BALANGIR, plans, drawings and specifications, describing the works to be executed for of the job to open tender received at the office of the "OWNER" to scrutinise and recommend to the Owner the name and names of the Contractor or Contractors from whom the tenders were received and to issue work order to the Contractor or Contractors so recommended after having the approval and acceptance thereof from the Owner.

AND WHEREAS the Owner has caused the plans, drawing Number _____ and specification priced schedule of quantities of (the Building and allied works etc. for the construction of said works) as per conditions of contract, special conditions additional condition and instructions to the tenderer prepared with the assistance of the said Architect/Consultant subject to which the offer of the contractor shall be accepted.

AND WHEREAS the tender of the contractor for construction of the said works has been approved by the Owner.

AND WHEREAS the contractor has deposited with the Owner Rs.....as security deposit for the due performance of the Agreement.

AND WHEREAS the said Architect/Consultant has issued the work order therefore to the Contractor.

AND WHEREAS the relevant drawings inclusive of the specifications, priced schedule of quantities, conditions of contract, special conditions, additional conditions and instructions to the tenderer (hereinafter collectively referred to as "the said conditions") have been signed by the Parties hereto and contractor has agreed to execute the works upon and subject to the said conditions.

NOW IT IS HEREBY AGREED AS FOLLOWS

1. In consideration of the payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions execute and complete the works shown upon the said drawings etc. and such further detailed drawings as may be furnished to the Contractor by the said Owner through the Architect and described in the said specification & said priced schedule of quantities.
2. The Owner will pay to the Contractor the sum of Rs..... (Rupees.....) herein called the "Contract Sum") or such other sum as shall become payable hereunder at the times and in the manner specified in the said conditions.
3. The terms "The Architect" in the said conditions shall mean the said M/s Designers Forum, and in the event of the said Architect ceasing to be the Architect for the purpose of this contract such other person or persons as shall be nominated for the purpose by the Owner. Provided always that no person subsequently appointed to be the Architect under this contract shall be entitled to disregard or over rule any decision or approval expressed in writing by the outgoing Architect for the time being if the same had been done under instruction from the Owner.
4. The plans agreement and documents above mentioned shall form the basis of this Contract and all disputes to be decided in the manner prescribed in the conditions attached hereto.
5. The said contract comprises the buildings/works above mentioned and all subsidiary works connected there with within the same site as may be ordered to be done from time to time by the said Owner through the said Architect or other Architect as the case may be even though such works may not be shown on the drawings or described in the said specifications or the priced Schedule of Quantities.
6. Notwithstanding what are stated in the Special conditions, Conditions of contract and herein before stated the Owner through the Architect reserves to itself the right of altering the drawings and nature of the works and of adding to or omitting any items of work or of having portions of the same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this contract.
7. The said conditions shall be read and be treated as forming part of this Agreement and the parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and performed.
8. Any dispute arising under this agreement between the parties hereto shall be referred for adjudication to a sole arbitrator in the manner and in terms of the

provisions as laid down in clause 59 of the general conditions of contract. The award of the arbitrator shall be final and binding on both the parties.

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

AS WITNESS our hands this _____
day of 2011

SIGNED BY THE SAID OWNER
in the presence of

SIGNED BY THE SAID CONTRACTOR
in the presence of

CLAUSE - 1 :

CONTRACT DOCUMENTS

- i. Notice inviting tender
- ii. Form of Tender
- iii. Instructions to Tenderers
- iv. Form of Agreement
- v. General conditions of contract
- vi. Technical Specification
- vii. Special Conditions of contract.
- viii. Schedule of items, quantities & approved rates.
- ix. Schedule of Drawings
- x. All letters exchanged between tenderers and consultant/Employer including letter of work order and Acceptance letter by Contractor.

CLAUSE - 2 : INTERPRETATION

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

- i) Employer : The term Employer shall denote INDIAN BANK (Name of the Bank) with their ZONAL OFFICE at Bhubaneswar and any of its employees representative authorised on their behalf.
- ii) Architect : The term Architects shall mean DESIGNERS FORUM , N-2/64 I.R.C VILLAGE (Name of the Architect) or in the event of his/their ceasing to be the Architects for the purpose of this contract such other person/s as the Employer shall nominate for the purpose.
- iii) Contractor: The term Contractor shall mean.....
.....(Name and address of the Contractor) and his/their heirs, legal representatives, assigns and successors.
- iv) Site : The site shall mean the site where the works are to be executed as shown within boundary as mentioned on the site plan including any building and erections thereon allotted by the Employer for the Contractor's use.
- v) Drawings : The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings which may be

supplied or any other instruction which may be given by the Employer during the execution of the work.

All drawings relating to work given to the Contractor together with a copy of schedule of quantities are to be kept at site and the Employer/Architect shall be given access to such drawings or schedule of quantities whenever necessary.

In case any detailed Drawings are necessary Contractor shall prepare such detailed drawings and/or dimensional sketches there for and have it confirmed by the Employer/Architects prior to taking up such work.

The Contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instruction at least 10 days ahead from the time when it is required for implementation so that the Employer may be able to give decision thereon.

- vi) "The work" shall mean the work or works to be executed or done under this contract.
- vii) "Act of Insolvency" shall mean any act as such as defined by the Presidency Towns Insolvency Act or in Provincial Insolvency Act or any amending statutes.
- viii) "The Schedule of Quantities" shall mean the Schedule of Quantities as specified and forming part of this contract.
- ix) "Priced Schedule of Quantities" shall mean the Schedule of quantities duly priced with the accepted quoted rates of the Contractor.

CLAUSE - 3 : SCOPE

The work consists of *Electrical works of INDIAN BANK BALANGIR Branch, BALANGIR* in accordance with the "Drawings" and "Schedule of Quantities". The Electrical wiring, Data cabling etc., are within the scope of this tender. It includes wiring all materials, labour, tools, and equipment and management necessary for and incidental to the construction and completion of the work. The Architect/Employer may in their 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 " The Architect's/Employer'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/rates and/or drawings and/or specifications.
- c. The removal from the site of any materials brought thereon by the Contractor and substitution of any other materials thereof.
- d. The demolition removal and/or re-execution of any works executed by the Contractor/s.
- e. The dismissal from the works of any persons employed thereupon.

- f. The opening up for inspection of any work covered up.
- g. The rectification and making good of any defects under clauses herein after mentioned and those arising during the maintenance period (retention period)

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

The Contractor shall set up a field laboratory with necessary equipments for day to day testing of materials like grading of coarse and fine aggregates, silt content and bulking of sand etc.

Regarding all factory made products for which ISI marked products are available, only products bearing ISI marking shall be used in the work.

CLAUSE - 4 : TENDERER SHALL VISIT THE SITE

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

CLAUSE - 5 : TENDERS

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

The Schedule of quantities shall be filled in as follows:-

- i. The "Rate" column to be legibly filled in ink in both English figures and English words.
- ii. Amount column to be filled in for each item and the amount for each sub head as detailed in the "Bill of Quantities"

- iii. All corrections are to be initialed.
- iv. The 'Rate Column' for alternative items shall be filled up.
- v. The "Amount" column for alternative items of which the quantities are not mentioned shall not be filled up.
- vi. In case of any errors/omissions in the quoted rates, the rates given in the tender marked "Original" shall be taken as correct rates.
- vii. Contractors should quote rates for all items. If rates are not quoted for any item then the tender will be considered as incomplete and is liable to be rejected.

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

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

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

The works will be paid for as "measured work" on the basis of actual work done and not as "lump sum" contract.

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

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

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

CLAUSE - 6 : GOVERNMENT AND LOCAL RULES

The Contractor shall conform to the provisions of all local Bye-laws and Acts relating to the work and to the Regulations etc., of the Government and Local Authorities and of any company with whose system the structure is proposed to be connected. The Contractor

shall give all notices required by said Act, Rules, Regulations and bye-laws etc., and pay all fees payable to such authority/Authorities for execution of the work involved. The cost, if any, shall be deemed to have been included in his quoted rates, taking into account all liabilities for licenses, fees for footpath encroachment and restorations etc., and shall indemnify the Employer against such liabilities and shall defer all actions arising from such claims or liabilities.

CLAUSE - 7 : TAXES AND DUTIES

The tenderers must include in their tender prices quoted for all duties, royalties, cess, excise, service tax and sales tax or any other taxes or local charges, sales tax on works contract etc. whether existing or in future. No extra claim on this account will in any case whatsoever be entertained.

CLAUSE 8 : PROVISIONAL SUMP (P.S.)

All provisional sums described in the schedule of quantities as P.S. shall be exclusively allotted to the purchase of materials and not for handling and fixing to be done by the Contractor. Such costs of handling and fixing with profit (including transport charges if required) shall be separately included in the contract price as described in the schedule of quantities. The disposal of the amounts covered under this head will be absolutely at the discretion of the Employer. Contractor is to make payments for these materials to the Suppliers on certificate or order issued by the Employer/Architects and realise them through his bills from the Employer.

CLAUSE - 9: QUANTITY OF WORK TO BE EXECUTED

The quantities shown in the Schedule of quantities are intended to cover the entire new structure indicated in the drawings but the Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore.

CLAUSE - 10: OTHER PERSONS ENGAGED BY THE EMPLOYER

The employer reserves the right to execute any part of the work included in this contract or any work which is not included in this contract by other Agency or persons and Contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The main Contractor shall extend all cooperation in this regard.

CLAUSE - 11 : EARNEST MONEY AND SECURITY DEPOSIT

The tenderer will have to deposit an amount (as mentioned earlier) in the form of Bank Draft/Pay order/Banker's Cheque drawn in favour of INDIAN BANK payable at Bhubaneswar at the time of submission of tender as an Earnest money. The Employer is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision toward the work is taken or after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit as initial security deposit a further sum to make up 2% of the value of the accepted tender including the Earnest Money. The initial Security Deposit may be submitted in the form of Bank Draft/ Pay order/ Banker's Cheque/ Bank Guarantee in an approved format. The Bank Guarantee shall be from any Nationalised Bank other than the Branches of INDIAN BANK or its subsidiaries. The initial Security deposit will have to be made within 14 days from the date of acceptance of the tender failing which the Employer at his discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with the tender.

Apart from the initial security deposit made as above retention money shall be deducted from progressive running bills @ 10% of the gross value of each running bill until the total security deposit i.e., the initial Security Deposit plus the retention money equals.

- a. 5% on the amount of the accepted tendered cost of work/ of the final bill value.
- b. 50% of the Security deposit will be released to the Contractor on the issue of virtual completion certificate for the whole of the work.
- c. The balance 50% of the Security deposit will be refunded to the Contractor 14 (Fourteen) days after the end of defect liability period provided he has satisfactorily carried out all work and attended to all defects in accordance with the conditions of the contract.
- d. No interest shall be payable on the retention money or of any other dues nor shall the same be payable on advances made by the employer to the Contractor.

CLAUSE - 12 : CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The Contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds and discrepancies therein he shall immediately and in writing, refer the same to the Employer/Architects whose decision shall be final and binding. The Contractor shall provide himself for ground and fresh water for carrying out of the works at his own cost. The Employer shall on no account be responsible for the expenses incurred by the Contractor for hired ground or fresh water obtained from elsewhere.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplating of the contract and beyond the unit price to extra payment will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents.

The Contractor shall supply, fix and maintain at his own cost for the execution of any work, all tools, tackles, machineries and equipments and all the necessary centering, scaffolding, staging planking timbering strutting, shoring, pumping fencing boarding

watching and lighting by night as well as by day required not only for the proper execution and protection of the said work but also for the protection of the public and safety of any adjacent roads, streets, walls houses, building all other erection matters and things and the Contractor shall take down and remove any or all such centering scaffolding planking timbering strutting shoring etc., as occasion shall be required or when ordered so to do and shall fully reinstate and make good all matters and things disturbed during the execution of works to the satisfaction of the Employer/Architects.

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

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

CLAUSE - 13 : TIME OF COMPLETION EXTENSION OF TIME & PROGRESS CHART

1. Time of completion : The entire work is to be completed in all respects within the stipulated period. The work shall deemed to be commenced within seven days from the date of work order or date of handing over of site, which ever is later. Time is the essence of the contract and shall be strictly observed by the Contractor.

The work shall not be considered as complete until the Employer/Architects have certified in writing that this has been completed and the Defects Liability Period shall commence from the date of such certificate.

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

In case of such strikes or lock-outs as are referred to above, the Contractor shall immediately give the Employer, written notice thereof. Nevertheless, the Contractor shall use his best endeavours to prevent delay and shall do all that may

be reasonably required to the satisfaction of the Employer to proceed with the works and on his doing so that it will be ground of consideration by the Employer for an extension of time as above provided. The decision of the Employers to the period to be allowed for an extension of time for completion hereunder (which decision shall be final and binding on the Contractor) shall be promulgated at the conclusion of such strike or lock-out and the Employer shall then in the event of an extension being granted determine and declare the final completion date. The provisions in Clause 15 with respect to payment of liquidated damages shall in such case, be read and construed as if the extended date shall be deducted accordingly.

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

CLAUSE - 14 : LIQUIDATED DAMAGES

Should the work be not completed to the satisfaction of the Employer/Architect within the stipulated period the Contractor shall be bound to pay to the Employer a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains uncompleted or unfinished after the completion date.

0.50% of the tender amount shown in tender per week subject to a ceiling of 5% of the accepted contracted sum but not exceeding the total S.D. of the contract.

CLAUSE 15 : TOOLS, STORAGE OR MATERIALS, PROTECTIVE WORKS AND SITE OFFICE REQUIREMENTS.

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

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

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

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

The Contractor shall arrange for temporary latrines for the use of workers and field staff and keep the same in a clean and sanitary condition to the satisfaction of the public health

authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall make good all the works distributed by these conveniences.

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

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

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

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

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

STORAGE OF MATERIALS : The Contractor shall provide and maintain proper sheds for the proper storage and adequate protection of the materials etc. and other work that may be executed on the site including the tools and materials of sub-Contractors and remove same on completion. Sheds for storage of cement are to have pucca floor raised above the ground.

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

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

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

The Contractor should cover in his rates for making provisions for all reasonable facilities for the use of his scaffolding tools, and plant etc., by subcontractor for their work.

CLAUSE - 16 : NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNERS

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

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

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

CLAUSE - 17 : CLEARING SITE AND SETTING OUT WORKS

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

The Contractor shall set out the works and shall be responsible for the true and perfect settings out of the work and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of work. The Contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the Employer. The Contractor shall further set out the works to the alternative positions at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

CLAUSE - 18 : DATUM

The average ground level will be considered as the crown of the nearest road, which should be taken as "DATUM" which is however, subject to final confirmation by the Employer/Architects. All levels shown in the drawings are to be strictly adhered to.

CLAUSE - 19 : BENCHES

The Contractor is to construct and maintain proper benches of all the main walls, in order that the lines and levels may be accurately checked at all times.

These benches will consist of Salwood post of adequate length and minimum diameter 75mm to be driven in the ground at suitable distance as directed encasted with brickwork. The wire nails will be driven on the top of salwood post on the centre lines of column walls, and outside faces of foundations trenches in order that lines may be stretched between the benches and accurate intersection of excavation centre line of walls, columns etc. may be clearly indicated and checked at any time if it is so required.

CLAUSE - 20 : CONTRACTORS IMMEDIATELY TO REMOVE ALL OFFENSIVE MATTERS

All soil filth or other matters of any offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface but shall be at once carted away by the Contractor to place provided by him.

The Contractor shall keep the foundations and works free from water and shall provide and maintain at his own expenses electrically or other power driven pumps and other plant to the satisfaction of the Employer for the purpose until the building is handed over to the Employer. The Contractor shall arrange for the disposal of the water so accumulated to the satisfaction of the Employer and local authority and no claims will be entertained afterwards if he does not include in his rates for the purpose.

CLAUSE - 21 : ACCESS

Any authorised representative of the Employer shall at all reasonable times have fire access to the works and/or to the workshops, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained and the Contractor shall give every facility to the bank or their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Employer no person shall be allowed at any time without the written permission of the Employer.

CLAUSE - 22 : MATERIALS, WORKMANSHIP, SAMPLES, TESTING OR MATERIALS

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

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

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

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

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

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

CLAUSE - 23 : REMOVAL OF IMPROPER WORKS

The Employer shall during the progress of work 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 Architects/Employer are not in accordance with the specification or the instructions, the substitution or proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions.

In case the Contractor refuses to comply and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Architect/Employer shall be borne by the Contractor or may be deducted from any money due or that may become due to the Contractor. No certificate which may be given by the Architects shall relieve the Contractor from his liability in respect of unsound work or bad materials.

CLAUSE - 26 : CONTRACTOR'S EMPLOYEES

The Contractor shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Employer/Architects. The Contractor shall engage for execution of the work. The Contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job effectively.

The Contractor shall employ local labourers on the work as far as possible.

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

Any labourer supplied by the Contractor to be engaged on the work on day-work basis either wholly or partly under the direct order of control of the Employer or his representative shall be deemed to be a person employed by the Contractor.

The Contractor shall comply with the provisions of all labour legislation including the requirements of

- a) The payment of Wages Act.
- b) Employer's Liability Act.
- c) Workmen's Compensation Act.
- d) Control Labour (Regulation & Abolition) Act 1970 and Central Rules 1971.
- e) Apprentices Act 1961.
- f) Any other Act or enactment relating thereto and Rules framed there under from time to time.

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

The Contractor shall comply at his own cost with the order or requirement of any Health Officer of the State or any local authority or of the Employer regarding the maintenance of proper environmental sanitation of the area where the Contractor's labourers are housed or accommodated for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The Contractor shall provide, maintain and keep good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all times for the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the Contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

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

CLAUSE - 27 : CONTRACTORS SUPERINTENDENCE & EMPLOYMENT OF PERSONNEL

The Contractor shall give all necessary personal superintendence during the execution of the work & as long there after as the Architect/Employer may consider necessary until expiration of the Defect Liability Period.

The Contractor or a competent and authorised agent or representative approved in writing by the Architect/Employer which approval may at any time be withdrawn is to be consequently on the works and shall give his whole time to the superintendence of the same. Any directions, explanations, instructions given to such representative shall be deemed to be given to the Contractor.

If the approval as mentioned above shall be withdrawn by the Architect/Employer, the Contractor after receiving written notice of such withdrawal shall remove the agent from the works and shall not employ him again in any capacity on the works. The Contractor shall at all times enforce strict discipline & good order among his employees and shall not employ and unfit person or anyone not skilled in the work assigned to him.

The Contractor shall employ at least the following technical staff besides other personnel.

One graduate engineer/Sr. Diploma holder having experience of about 10 years.

The above technical staff should be available at site to take instructions whenever required by the Architect/Employer. In case the Contractor fails to employ the technical staff as aforesaid he shall be liable to pay a sum of Rs.5000/- each month or part thereof for default.

The decision of the Architect/Employer so as to the period will be final and binding on the Contractor.

The Architect/Employer shall be at liberty to object to and require the Contractor to remove forthwith from the works any person employed by the Contractor or about the execution or maintenance of the works, who in the opinion of the Architect/Employer misconducts himself or is incompetent or negligent in the performance of his duties of whose employment is consider otherwise undesirable.

CLAUSE - 28 : DISMISSAL OF WORKMEN

The Contractor shall on the request of the employer immediately dismiss from works any person employed thereon by him who may in the opinion of the employer be unsuitable or incompetent or who may misconduct himself such discharges shall not be the basis of any claim for compensation or damages against the employer or any of their Officer or employer.

CLAUSE - 29 : ASSIGNMENT

The whole of the works included in the contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein not shall take a new partner, without written consent of the Employer and no subletting shall relieve the Contractor from the full and entire

responsibility of the contract or from active superintendence of the work during their progress.

CLAUSE - 30 : DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.

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

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

The Contractor shall affect the insurance necessary and indemnify the Employer entirely from all responsibility in this respect. The insurance must be placed in a company approved by the Employer and must be effected, jointly in the name of the Contractor and the Employer & the policy lodge with the latter. The scope of insurance is to include damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be affected from the very initial stage. The Contractor shall also be responsible for anything, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

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

CLAUSE - 31 : INSURANCE

Unless otherwise instructed the Contractor shall insure the works and keep them insured until the virtual completion of the contract against loss or damage by fire and/or earthquake, flood, cyclone, etc. The insurance must be placed with a company approved by the Employer, in the joint names of the Employer and the Contractor for such amount and for any further sum if called to do so by the Employer, the premium of such further sum being allowed to the Contractor as an authorised extra.

The Contractor shall deposit the policy and receipt for premium paid with the Employer within 21 (Twenty one) days from the date of issue of work order unless otherwise instructed. In default of the Contractor insuring as provided above, the Employer on his behalf may so insure and may deduct the premiums paid from any money due or which may become due to the Contractor. The Contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so proceed with due diligence with the completion of the works in the same manner as though the damages has not occurred and in all respect under the conditions of the contract. The Contractor in case of rebinding or reinstatement after shall be entitled to extension of time for completion as the Employer may deem fit.

CLAUSE - 32 : ACCOUNTS RECEIPTS AND VOUCHERS

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

CLAUSE - 33 : MEASUREMENT OF WORK

Before taking any measurement of any work the employer/architect or a subordinate deputed by him shall give reasonable notice to the contractor. If the contractor fails to attend at the measurements after such notice or fails to countersign or to record the difference within a week from the date of measurement in the manner required by the employer/architect then in any such event the measurements taken by the employer/architect or by the subordinate deputed by him as the case may be is final and binding on the contractor and the contractor shall have no right to dispute the same.

CLAUSE - 34 : PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Employer/Architects, format enclosed. Normally one interim bill shall be prepared each month subject to minimum value for interim bill as stated in APPENDIX - I, for interim certificates. The bills in proper forms must be duly accompanied by detailed measurements, duly endorsed by the employer/architect as defined in Clause above in support of the quantities of work done and must show deductions for all previous payments retention money etc. Advance/adhoc payment for work actually executed will not be normally made. However, adhoc payment may be made at the discretion of Architect/Employer in case of exigency.

The Employer/Architects shall issue a certificate after due scrutiny of the contractor's bill stating the amount due to the contractor from the Employer and the contractor shall be entitled to payment thereof, by the Employer within the period of honouring certificates mentioned in the Appendix - I.

The amount stated in an interim certificate (as in Appendix - I) shall be the total value of work properly executed and approx. 75% of invoiced value of material brought to site for permanent incorporation into the work upto the date of the bill less the amount to be retained by the Employer as retention money vide clause of these conditions and less installments previously paid under these conditions , provided that they are of a durable/non-fragile nature. The materials against which secured advance will be considered are steel & cement, stone chips/gravels, manufactured items of steel/cement, bricks, door frames & shutters, window frames & shutters, paints, G.I. pipes & fittings, sanitary fixtures and fittings etc.

The material to be considered for secured advance shall only include the value of the said material and goods as and from such time as they are reasonably, properly and not prematurely brought to or placed adjacent to the work and prematurely brought to or placed adjacent to the work and then only if adequately protected against weather or other casualties, provided also materials are considered acceptable by the employer/architect. An indemnity bond is to be submitted in an appropriate format whenever Secured Advance against materials e prayed for.

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

All the interim payments shall be regarded as advance payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract or any part thereof in any respect or the accruing of any claim, nor shall, it conclude determine or affect in any way the power of the employer under these condition or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the contractor to the Architect within one month of the date fixed for completion of the work or of the date of certificate of completion furnished by the Architects and payment shall be made by the Employer within three months from the date of receipt of the final bill duly verified & certified by the Architect.

CLAUSE - 35 : FINAL PAYMENT

The final bill shall be accompanied by certificate of completion from the employer/Architects payments off final bill shall be made after deduction of Retention money as specified earlier of these conditions, which sum shall be refunded after the completion of the Defects Liability period after receiving the employer's/Architects' certificate that the contractor has rectified all defects to the satisfaction of the Employer/Architects. The acceptance of payment of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

CLAUSE - 37 : SUBSTITUTION

Should the Contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Employer/Architects in writing for any such substitution well in

advance. Materials designed in this specification indefinitely by such term as "Equal" or "Other approved" etc., specific approval of the Employer/Architects has been obtained in writing.

CLAUSE -38 : PREPARATION OF BUILDING WORKS FOR OCCUPATION AND USE ON COMPLETION

The whole of the work will be thoroughly inspected by the Contractor and deficiencies and defects put right. On completion of such inspection the Contractor shall inform the Employer that he has completed the work and it is ready for inspection.

On completion the Contractor shall clean all windows and doors including the cleaning and oiling if necessary of all hardware inside the outside all floors staircase and every part of the building. He will leave the entire building neat and clean & ready immediate occupation and to the satisfaction of the work.

CLAUSE - 39 : CLEARING OF SITE ON COMPLETION

On completion of the works, the Contractor shall clear away and remove from the site all constructional plants and equipments, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workman-like condition to the satisfaction of the Employer/Architects.

CLAUSE - 40 : DEFECTS AFTER COMPLETION

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

CLAUSE - 41 : CONCEALED WORK

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

CLAUSE - 42 : ESCALATION

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

CLAUSE - 43 : IDLE LABOUR

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

CLAUSE - 44 : SUSPENSION

If the Contractor except on account of any legal restraint upon the Employer preventing the continuance of the work or in the opinion of the Employer shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default, the Employer shall have the power to give notice in writing to the Contractor requiring the work to proceed within a reasonable manner and with reasonable despatch, such notice purport to be a notice under this clause.

After such notice the Contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with. If the Contractor shall fail for 7 days after such notice has been given to proceed with the works as therein prescribed, the Employer may proceed as provided in Clause 45 (Termination of Contract by Employer)

CLAUSE - 45 : TERMINATION OF CONTRACT BY EMPLOYER

If the Contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjusted insolvent or shall make assignment or a composition for the benefit of the greater part in number of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the official assignee in insolvency of the Receiver of the Contractor in insolvency, shall repudiate the contract, or if a Receiver of the Contractor's firm appointed by the court shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the employer that he is able to carry out and fulfill the contract, and if so required by the Employer to give reasonable security therefor, or if the Contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the Contractor, or shall assign charge or encumber this contract or any payments due or which may become due to the Contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the Contractor within three clear days after the notice shall have been given to the Contractor in manner hereinafter

mentioned requiring the Contractor to observe or perform the same or shall use improper materials or workmanship in carrying on the works, or shall in the opinion of the employer not exercise such due diligence and take such due progress as would enable the work to be completed within due time agreed upon and shall fail to proceed to the requiring the Contractor so to do shall have been given to the Contractor as hereinafter mentioned, or shall abandon the contract, then and in any of the said cases, the bank may not withstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the Employer of the obligations and liabilities of the Contractor the whole of which so determined and as if the works subsequently executed had been executed by or on behalf of the Contractor (without thereby creating any trust in favour of the Contractor) further the employer or his agent, or servants, may enter upon and take possession of the work and all plants, tools, scaffolding, sheds, machinery, steam and other power, utensils and materials, lying upon premises or the adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor or other persons or person 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 persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon hereafter as conveniently may be, the employer shall give notice in writing to the Contractor to remove his surplus materials and plants and should the contractor fail to do so within a period of 14 days after receipt by him the employer may sell the same by public Auction and shall give credit to the Contractor for the amount so realised. Any expenses or losses incurred by the employer in getting the works carried out by other Contractor's shall be adjusted against the amount payable to the Contractor by way of selling his tools and plants or due on account of work carried out by the Contractor prior to engaging other Contractors or against the Security Deposit.

CLAUSE - 46 : DRAWING & SPECIFICATIONS

- a) The Contractor after the award of the contract and on signing thereof shall be furnished by the Architect/Employers free of cost two copies of each of the drawings specification, description schedule and other details necessary for execution of the work. All further drawings & details as may be prepared by the Architect/Employers from time to time for reasonable developments of the work described in the contract documents and reasonably necessary to explain and simply the contract drawings and to enable the Contractor to execute and complete the works shall also be supplied in duplicate to the Contractor free of cost.

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 specifications, priced schedule of items and quantities on the works & the Architects/Employers or his representative shall at all reasonable times have access to the same.

- b) The Contractor shall provide at his cost everything necessary for the proper execution of the works according to the intent and meaning of the Drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds any discrepancy in the drawings or between drawings, schedule of quantities and specifications he shall immediately & in writing refer the same to the Architect/Employers whose decision shall be final and binding.
- c) Figured dimension on the scale drawings and large size details shall govern. Any work done at any time or even before receipt of such details shall be removed/replaced by the Contractor without any expense to the Owner. If the work is not in order and if so directed by the Architect/Employers error, inconsistencies in drawing & local conditions affecting the works shall be brought to the notice of the Architect/Employers immediately for his decision.
- d) All drawings, bills of quantities and specifications and copies thereof furnished by the Architect/Employer are their property. They shall not be used on any other work and shall be returned to the Architect at his request on completion before issue of final certificate or termination of the contract.
- e) Reinforcing steel and bar bending schedules shall be furnished by the Contractor to the Architect/Employer at least 15 days before the items of work is to be taken up and approval of the Architect/Employer shall be obtained before the fabrications and placing of reinforcement.
- f) Shuttering and tagging drawings if called by the Architect/Employer shall also furnish well in advance for his approval before taking up the work.

CLAUSE - 47 : ASSIGNMENT SUBLETTING

The whole of the works included in the contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet therein without the written consent of the Owner and no undertaking shall relieve the Contractor from any liability or obligation under the contract

CLAUSE - 48 : NOMINATED SUB-CONTRACTOR

As soon as practicable and before awarding any sub-contract, the Contractor shall notify the Architect in writing the names of the sub-Contractor proposed for the principal parts of the work and for such other parts as the Architect may direct and shall not employ any to whom the Architect or the employer may have a reasonable objection.

- 48.1 All specialists merchants tradesman and other executing any work or supplying and fixing any goods who may be nominated or selected by the Architect shall be deemed to be Sub-Contractor employed by the Contractor and are to be referred as Nominated sub-Contractor shall be employed on or in connection with the work

against whom the Contractor shall make reasonable objection or (save where the Architect and Contractor shall otherwise agree) who will not enter in to a contract providing.

- 48.1A That the nominated sub-Contractor shall carryout and complete the sub-contract works in every respect to the reasonable satisfaction of the Contractor and of the Architect and in conformity with all the reasonable directions and requirement of the Contractor
- 48.1B That the nominated sub-Contractor shall observe, perform and comply with all the provisions of this contract on the part of the Contractor to observed, performed and complied with (either than Clause 29 of this conditions if applicable) so as they relate and apply to the sub-Contractor works or to any portion of the same.
- 48.1C That the nominated sub-Contractor shall indemnify the Contractor against the same liabilities in respect of the sub-Contractor work as those for which the Contractor is liable to indemnify the employer under this contract.
- 48.1D That the nominated sub-Contractor shall indemnify the Contractor against claims in respect of any negligence, omission or default of such sub-Contractor, his servants or agents or any misuse by him then of any scaffolding claims and produce the policy or policies and premium receipts as and when required by the Contractor or Architect.
- 48.1E That payment in respect of any work materials or goods comprised in the Sub-Contract shall be made within fourteen days after receipt by the Contractor of the Architect's certificate under clause 18 of this conditions which states as due and amount calculated by including the total value of such work materials or goods & shall when due be subject to the retention by the Contractor of the sums mentioned in sub-paragraph (J) below
- 48.1F That the Architect and his representatives shall have right of access to the workshops & other places of the nominated sub-Contractor as mentioned in Clause-9 of this conditions.
- 48.1G That the sub-Contract work shall be completed within the period of (where they are to be completed in sections) periods therein specified, that the Contractor shall not without the written consent of the Architect, grant any extension of time for the completion of the sub-contract work or any section thereof and that the Contractor shall inform the Architect of any representation made by the nominated sub-Contractor as to the cause of any delay in the progress of completion of the sub-Contractor work or of any section thereof.
- 48.1H That if the nominated sub-Contractor shall fail to complete the sub-contract work or (where the sub-contract works are to be completed in sections) any sections thereof within the period therein specified or within any extended time granted by the Contractor with the written consent of the Architect and the Architect certifies

in writing to the Contractor that the same ought reasonably so to have been completed the nominated sub-Contractor shall pay or allow to the Contractor either a sum calculated at the rate therein agreed as liquidated and ascertained damages for the period during which the said work or any section thereof as the case may be shall so remain or have remained incomplete or (where no such rate is therein agreed) a sum equivalent to any loss or damage suffered or incurred by the Contractor & caused by the failure of the nominated sub- Contractor as aforesaid.

- 48.1J That the Contractor shall retain from the sum directed by the Architect having been included in the calculations of the amount stated as due in any certificate issued under clause 18 under this conditions in respect of the total value of work, materials or goods executed or supplied by the nominated sub-Contractor the percentage of such value named in the appendix to these conditions as percentage of certified value retained upto a total amount not exceeding a sum which bears the same ratio to the sub-contract price as the unreduced sum named in the appendix to these conditions as limited of Retention Fund bears to the contract sum and that the Contractor's interest in any sums so retained (by whomsoever held) shall be fiduciary as trusted for the nominated sub-Contractor beneficial interest in such sums shall be subject only to the right of the Contractor to have recourse thereto from time to time for payment of any amount which he is entitled under the sub-contract to deduct from any sum due or to become due to the nominated sub-Contractor and that if and when such sums of any part thereof are released to the nominated sub-Contractor they shall be paid in full if paid within 14 days of the date fixed for their release in the sub-contract.
- 48.2 Before issuing any certificate under clause 18 of these conditions the Architect may request the Contractor to furnish to him reasonable proof that all amounts included in the calculation of the amount stated as due on previous certificates in respect of the total value of work materials or goods executed or supplied by any nominated sub-Contractor have been duly discharged and if the Contractor fails to comply with any such request the Architect shall issue a certificate to that effect and thereupon the employer may himself pay such amounts to any nominated sub-Contractor concerned and deduct the same from any sums due or to become due to the Contractor.
- 48.3A The Contractor shall not grant to any nominated sub-Contractor any extension of the period within which the sub-Contractor work or (where the sub-contract works are to be completed in sections) any section thereof is to be completed without the written consent of the Architect, provided always that the Contractor shall inform the Architect of any representation made by the nominated sub-Contractor as to the cause of any delay in the progress or completion of the sub-contract work or any section thereof and that the consent of the Architect shall not be unreasonably withheld.
- 48.3B If any nominated sub-Contractor fails to complete the sub-contract work or (where the sub-contract works are to be completed in sections) any sections thereof within

the extended time granted by the Contractor with the written consent of the Architect then if the same ought reasonably so to have been completed the Architect shall be issued to the Contractor and immediately upon issue the Architect shall send a duplicate copy thereof to the nominated sub-Contractor.

- 48.4 If the Architect desires to secure final payment to any nominated sub-contractor before final payment is due to the Contractor and if such sub-Contractor has satisfactorily indemnified the Contractor against any defects then the Architect may in an Interim certificate include an amount to cover the said final payment and thereupon the Contractor shall pay such nominated sub-Contractor the amount certified. Upon such final payment named in the appendix to these conditions as limit of retention fund shall be reduced by the sum which bears the same ratio to the said amount as does such sub- Contractor's price to the contract sum and save for latent defects the Contractor shall be discharged from all liability for the work materials or goods executed or supplied by such sub-Contractor under the sub-Contractor to which the payment relates.
- 48.5 Neither the existence nor the exercise of the foregoing powers nor anything else contained in these conditions shall render the employer in any way liable to any nominated sub-Contractor.
- 48.6 Where the Contractor in the ordinary course of his business directly carries out works for which prime cost of provisional sums are included in the contract bills and the Architect is prepared to receive tenders from the Contractor for such items then the Contractor shall be permitted to tender for the same or any of them but without prejudice to the employer right to reject the lowest or any tender. If the Contractor's tender is accepted he shall not sublet the work without the consent in writing of the Architect.
- 48.7 It shall be a condition of any tender accepted under this paragraph that clause 16 of this conditions shall apply in respect of the item of work included in the tender. If for the reference therein to the contract drawings and the contract bills there were references to the equivalent documents included in or referred to in the tender.
- 48.8 The Contractor shall allow for general attendance upon sub-Contractors including free use of plant, scaffolding and is to allow them use of sanitary, conveniences, storage facilities for storing materials other amenities and affording them all reasonable facilities for carrying out their contracts.

CLAUSE - 49 : VARIATIONSALTERATIONS, ADDITIONS AND OMISSIONS

The Architect/Employer make any variation of the form, of quantity of the works or any part there of that may in his opinion be necessary and for that purpose or if for any other reason it shall in his opinion be desirable he shall have power to order the Contractor to do and the Contractor shall do any or all of the following: -

- a) Increase or decrease the quantity of any work included in the Contract;
- b) Omit any such work;
- c) Change the character or quantity or kind of any such work;
- d) Change the levels, lines, positions and dimensions of any part of the works; and
- e) Execute additional work of any kind necessary for the completion of the works;

and no such variation shall in anyway vitiate or invalidate the contract but the price of all such additional items/ non tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing or on engineering rate analysis based on prevalent fair price of labour, material and other component as required. The tender rate shall hold good for any increase or decrease in the tendered quantities upto variation of 25%. For variation beyond + - 25% the value of all such variations shall taken into account and shall be added to or deducted from the contract sum accordingly as per the NBO with 15% profit and overhead charges.

No order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of any order given under this clause but is the result of actual quantities varying from those stated in the schedule of quantities. The schedule of quantities/Rates shall be deemed to have been prepared in accordance with the method of measurement of work set out in the relevant specifications or in its absence relevant I.S. Code of practice.

Any error in the description or in quantity or omission of any item from the schedule of quantities/rates shall not be adjusted by adding to or deducting from the contract sum provided that no restriction of errors, if any shall be allowed in the Contractor's schedule of rates.

- 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/rates and/or drawings and/or specifications.
- c. The removal from site of any materials brought thereon by the Contractor and substitution of any other materials therefore.
- d. The removal from and/or re-execution of any works executed by the Contractor.
- e. The dismissal from the works of any persons employed thereupon.
- f. The mending and working well of any defects.
- g. The opening up for inspection of any work covered up.

The Contractor shall forthwith comply and duly execute any work comprised in such Architects/Employer instructions provided always that verbal instructions directions and

explanation given to the Contractor or his representative upon the works by the Architect/Employer shall be got confirmed in writing by the Contractor within seven days of such instruction by the Architect/Employer and if not dissented by the Architect/Employer within seven days of such request for confirmation the same shall be deemed to be Architect/Employer instructions as within the scope of the Contract.

All authorised variation shall be adjusted as per valuation of various as herein else where provided but the Contractor shall not have any other claim for compensation by reason of any alterations involving any increase or curtailment of the works having been made in the original specification drawings, designs & instructions not these will vitiate the contract.

CLAUSE - 50 : VALUATION OF VARIATIONS

- a. All extra or additional work done or work omitted shall be valued at rates and prices set out in the priced Schedule of quantities and/or derived there from. If in arriving at the contract sum the Contractors have added to or deducted from the total of the items in the tender any sum either as a percentage or proportion then the same percentage or proportion shall apply to all items of works in the Priced Schedule as also for valuation of variations.
- b. If the contract does not contain any rate or price applicable to the extra or additional work or the rate of price in the price schedule of quantities have become in applicable in the opinion of the Architect/Employer by virtue of such addition or omission then the price of all such additional item/non tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing or in engineering rate analysis based on prevalent fair price of labour, materials and other components as required. The tender rate shall hold good for any increase or decrease in the tendered quantities upto variation of 25% for variation beyond + - 25% such rate shall be derived by analysis based on Standard Schedule of rates of National Building Organisation or in case such is not available there in from any approved schedule with the various elements valued at local market price plus 15% towards profit and overheads.

As far as analysis part is concerned references to C.P.W.D. manuals shall be made.

- c. The Architect/Employer may if in his opinion it is desirable or necessary order in writing that any additional or substituted work shall be done on a Day work basis. The Contractor shall then be paid for such work at the rates and prices on the basis of Day work schedule and the contractor shall furnish such receipts or other vouchers as may be necessary to prove the amount paid and before ordering materials shall submit quotations for the same for approval of the Architect/Employer. Rates for different categories of labour shall conform to the provision of minimum wages/fair wages in force in the area for the time being plus 15% towards profit and overheads.

As far as analysis part is concerned references to C.P.W.D. manuals shall be made.

CLAUSE - 51 : NOTICE OF ANY CLAIMS

The Contractor shall submit within seven days, in case there is any instance for which the Contractor considers himself entitled to or likes to prefer claim for additional payment, a statement giving particulars as full and detailed as possible to enable the Architect/Employer verification, admissibility and assessment, failing which no claim will be entertained.

CLAUSE - 52 : FINAL CLAIMS

1. Not later than 30 calendar days the issue of the completion certificate the Contractor shall submit to the Architect/Employer a statement of final account with supporting documents showing in details the value of work done in accordance with the contract together with all considers due to him.
2. Within 15 calendar days after receipt of the final account and all information reasonably required for verifications, the Architect/Employer shall issue final certificate both to the Contractor and the employer stating the balance amount which as per opinion of the Architect/Employer is due to the Contractor by the employer or payable to the employer by the Contractor after giving credit to the employer for all sums previously paid by the employer and for all sums to which the employer is entitled for credit under the contract.
3. The Contractor on receipt of the final certificate shall either
 - i. Accept the final certificate and sign the documents as evidence of his agreement therewith and refrain from any further claims.
 - or
 - ii. Take exception to the certificate by filling with the employer within a period of 30 calendar days, a written statement setting forth his claim for reconsideration.

CLAUSE - 53 : ABANDONMENT - CURTAILMENT OF WORK

If at any time after the issue of work order the employer for any reason whatsoever not require part or whole of the work as specified in the contract to be carried out, the Architect/Employer shall give notice in writing of the fact to the Contractor who shall have no claim to payment of any compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, provided that the Contractor will be paid transport charges of any bonafied materials actually brought to site and rendered surplus as a result abandonment or curtailment and there taken back by the Contractor, the quality and kind of such materials rendered surplus is to be certified by the Architect whose decision shall be final and binding.

CLAUSE - 54 : CERTIFICATE OF COMPLETION

1. When the whole of the works have been substantially completed and have satisfactorily passed any final test that may be prescribed in the contract the Contractor shall give a written notice to that effect to the Architect/ Employer with

an undertaking to finish any outstanding work during the Defect Liability Period for issue of a certificate of completion in respect of the works.

2. The Architect/Employer within 30 days of receipt of such notice either issue to the Contractor with a copy to the Employer, a certificate of completion stating the date on which in his opinion the works were substantially completed in terms of the contract.

or

give instructions in writing to the Contractor, specifying all the work which requires to be done by the Contractor before the issue of such certificates as also defects in the works affecting substantial completion. The Contractor shall be entitled to receive certificate of completion within 30 days of completion and making good any such defects so notified to the satisfaction of the Architect/Employer.

3. Similarly as in sub-clause (1) above, the Architect/Employer shall issue a certificate of completion in respect of :-
 - a. Any section of the permanent works in respect of which a separate time for completion is provided in the contract.

CLAUSE - 55 : OWNERS RIGHT TO DETERMINE THE CONTRACT

If the Contractor shall become bankrupt or have a receiving order made against him or shall present his petition in bankruptcy or shall make an arrangement with or assignment in favour of his creditors or being a corporation shall go into of amalgamation (or reconstruction) or if the Contractor shall assign the contract without the consent in writing of the employer shall have an execution levied on his goods or if the Architect/Employer shall certify in writing to the employer that in his opinion the Contractor :

- a. Has abandoned the contract
- or
- b. Without reasonable excuse has failed to commence the work or has suspended the progress of work for 150 days after receiving from the Architect/Employer written notices to proceed.
- or
- c. Has failed to proceed with the work with such diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon.
- or
- d. Has failed to remove materials from the site or to pull down and replace work within 10 days after receiving from the Architect/Employer written notice that the said materials or work had been condemned and/or reject by the Architect/Employer under these conditions.

or

- e. Previous warnings by the Architect/Employer in writing is not executing the works in accordance with the contract or is persistently or flagrantly neglecting to carryout his obligations under the contract.

or

- f. Has, to the detriment of good workmanship or in defiance of the Architect/Employer instructions to the Contractor sublet any part of the contract. then the employer may after giving 15 days notice in writing to the Contractor enter upon the site and the works and expel the Contractor there from with out there by voiding the contract, or releasing the Contractor from any of his obligations or liabilities under the contract, affecting the rights and powers conferred on the employer or the Architect/Employer by the contract and may himself complete the works or may employ any other Contractor to complete the works. The employer or such other Contractor employed by him may use for such completion the constructional plants, temporary works and materials, which have been deemed to be reserved exclusively for the execution of the works, under the provisions of the contract, as he or they may think proper and employer may, at any time sell any of the said constructional plant, temporary works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him by the Contractor under the contract. The Contractor shall not in anyway interrupt or do any act, matter or thing to prevent, or hinder the employer or such other Contractor or persons employed for the works.

The Architect/Employer shall as soon as may be practicable after any such entry and expulsion by the employer fix and determine experts, or by or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute and shall certify what amount if any had at the time of such entry & expulsion been reasonably earned by or would reasonably accrue to the Contractor in respect of work then actually done by him under the contract and the value of any of the said unused or partially used materials, any constructional plant and any temporary works.

If the employer shall enter and expel the Contractor under this clause, he shall not be liable to pay to the Contractor any money on account of the contract until the expiration of the "Defect Liability Period" & there after until the cost of execution and maintenance, damage for delay in completion if any and all other expenses incurred by the employer have been ascertained and the amount thereof certified by the Architect/Employer. The Contractor shall then be entitled to receive only such sum or sums, if any as the Architect/Employer may certify, would have been payable to him upon due completion by him after deducting the above amount. If such amount shall exceed the sum which would have been payable to the Contractor on due completion by him, then the contract shall upon demand, pay to employer the amount of such excess and it shall be deemed a debt due by the contractor to the employer and shall be recoverable accordingly.

CLAUSE - 56 : CARE OF WORKS AND EXPECTED RISKS

1. The Contractor shall provide and maintain at his own cost all lights, quaras, fencing and watching when and where necessary or required by the Architect/Employer by any duly constituted authority for the protection of the works or from safety and convenience of the public or others.
2. The Contractor shall take full responsibility for the care and protection of the works, from the commencement to the end of the defect liability period or the date of occupation which is larger, against all risks and in case of any damage loss or injury to the works from any cause whatsoever except the expected risks, shall at his own cost repair and make good the same.
3. The expected risks are war(Declared or not) hostilities, invasion act of foreign enemies, rebellion, revolution, civil war, riot, commotion or rapid active or nuclear explosion/contamination, pressure waves of aircrafts or any such operation of the forces of nature as an experienced Contractor could not foresee or reasonably make provision for or insure against.

CLAUSE - 57 : OPPORTUNITIES FOR OTHER AGENCIES

The employer reserves the right to let other Contractors in connection with his work under similar general conditions. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and execution of their work and shall properly connected co-ordinate his work with theirs. If any part of the Contractor's or sub-Contractor's work depends for proper execution or results upon the work of any other Contractor or sub-Contractor, the Contractor shall inspect and promptly report to the Architect any defects in such work that tender it unsuitable for such proper execution and results. Failure of the Contractor do so inspect and report shall constitute an acceptance of the other Contractor work as fit and proper for the reception of his work except as to defects which may develop in the other Contractor's of sub-Contractor work after the execution of the work, to ensure the proper execution of his subsequent work the Contractor shall measure work already to place and shall at once report to the Architect any discrepancy between the executed work and the drawings.

CLAUSE - 58 : SERVICES OF NOTICES

1. The Contractor shall have a local office at or near the site of work. Full address thereof shall be intimated to the Employer as well as to the Architect/Employer.
2. All certificates, notices or written orders to be given by the Architect/ Employer or by the employer to the Contractor under the terms of contract shall be deemed to have been served by sending post to or delivering the same either to the Contractor's local office or last known registered or business office.
3. All notices to be given to the employer or the Architect/Employer under the terms of the contract shall be served by sending by post to or delivering the same to offices as mentioned in the contract documents, or last known registered/business office.

4. The Contractor, employer and the Architect/Employer may change a nominated address to another address but prior written notice to the other two shall be given.

CLAUSE - 59 : SETTLEMENT OF DISPUTES AND ARBITRATION

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to may other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions orders or these conditions or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter :

- i) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to the Chief Manager INDIAN BANK, Zonal Office, Bhubaneswar and endorse a copy of the same to the Architect, within 30 days from the date of disallowance thereof or the date of deductions or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall be Bank be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to the Chief Manager, in the manner and within the time as aforesaid. The contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the Chief Manager in writing in the manner and within the time aforesaid.
- ii) The Chief Manager shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of the Chief Manager submit his claims to the conciliating authority namely the Zonal Development Officer/General Manger (O.L. & Corporate Services), INDIAN BANK, Zonal Office, Bhubaneswar for conciliation along with all details and copies of correspondence exchanged between him and the Chief Manager.
- iii) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned Chief General Manager/Dy. Managing Director & Corporate Development Officer of the Bank for appointment of an arbitrator to adjudicate the notified claims falling which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.
- iv) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the

contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration, by the Sole Arbitrator appointed by the Chief General Manager/Dy. Managing Director & Corporate Development Officer. It will also be not objection to any such appointment that the Arbitrator so appointed is a Bank Officer and that he had to deal with the matters to which the Contractor relates in the course of his duties as Bank Officer. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said, Chief General Manager/Dy. Managing Director & C.D.O Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by such Chief General Manager/Dy. Managing Director & Corporate Development Officer as aforesaid should act as arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or reenactment thereof and the rules made there under.

It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a Bank Officer.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

CLAUSE - 60 : TREASURE TROVE ETC.

Any treasure, trove coins or objects of antiquity, which may be found at site shall be the property of the owner and shall be handed over to the employer.

CLAUSE - 61 : CLAIMS FOR EXTRA

When any instruction or decision given at site involve an extra or whereby the Contractor may plan to claim an extra it shall be the responsibility of the Contractor to inform the Architect of the extra amount and get written authorisation from the Architect before proceeding with the work involved.

Any modifications carried out for expediting or simplifying work at the request of the Contractor or his representatives at the request of the Contractor or his representatives shall not be taken as the basis for claiming an extra, the rate for such modification shall be settled in advance & written authorisation obtained by the Contractor from the Architect before proceeding with the work involved. If no such information is given by the Contractor in writing to the Architect such modification shall not be accepted as the basis for extra charges.

CLAUSE - 62 : DETERMINATION OF RATES FOR EXTRA WORK

- 62.I. The net rates or prices in the bills of quantities 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.
- 62.II The net prices in the bills of quantities shall be determined the value of the items omitted provided if omissions vary the conditions under which any remaining items of works are carried out and the prices for the same shall be valued under (44.1.3) hereof.
- 62.III 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 omissions 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 Architect, the net rate of price contained in the priced bill of quantities or tender or for any item of the works involves loss or expense beyond that of such omission or addition rendered unreasonable or in applicable, the Architect shall settle such other rate of price on the basis of analysis based on actual observations submitted by the Contractor after obtaining necessary approval from the employer. In such case the rate shall be derived on the basis of cost of materials and labour as per prevailing market rates for the same plus 15% (Fifteen percent) to cover overheads supervision, and profits etc. and in accordance with the standard C.P.W.D. practice for analysis of rates.
- 62.IV Where extra work cannot be properly measured or valued, the same Contractor shall be allowed by the Architect/Employer day work prices as the net rates stated in the tender or priced bill of quantities or if not so stated, then in the district as approved provided that in either case voucher specifying the time (and if required by the Architect, the workmen names) and materials employed submitted for verification to the Architect/ Employer at or before the end of the work following that in which the work has been executed.
- 62.V The measurement and valuation in respect of the contract shall be completed within the period of final measurement stated herein.

CLAUSE - 63 : PAYMENT WITHHELD

The Bank's Engineer may withhold or on account of a subsequently discovered evidence nullify the whole or a part of any certificate to such extent as may be necessary in his opinion to protect the employer from loss on account of :-

- a. Defective work not remedied.
- b. Failure of the Contractor to make payments properly to sub-Contractor or for materials or labours.
- c. A reasonable doubt that the contract can be completed for the balance then unpaid.
- d. Damages to another Contractor or sub-Contractor.
- e. Claims filed or reasonable evidence indicating probable filling of claims. When grounds are removed payment shall be made for amounts withheld because of them.

CLAUSE - 64 : TOLERANCE

The Contractor shall exercise every care to ensure that all structural members are sufficiently plumb and true to dimensions called for on the drawings to receive per fabricated finishing elements such as doors, windows ceramic work, concrete tiles etc. Any variation may require rectification in the structural members or any involvement remaking or replacing the finishing elements fabricated to fit into the openings or spaces as called for on the drawings.

In case of separate contract the Contractor whose work does not conform to dimensions called for shall be liable for all the expenses, which may have to be incurred for rectification, or replacement as may be required by the Architect for the proper installation of the finishing elements. The Architect's decision in this respect shall be final and binding on the parties concerned.

CLAUSE - 65 : UNFIXED GOODS AND MATERIALS

Unfixed materials and goods intended for delivered to and placed on or adjacent to the work shall not be removed except for use upon the work unless the Architect has consented in writing to such removal which consent shall not be unreasonably withheld. Where the value of any such materials or goods has in accordance with clause 18 of these condition been included in any interim certificate under the contract for which the Contractor has received payment such materials and goods shall become the property of the employer and the Contractor shall remain responsible for loss or damage to the same.

CLAUSE - 66 : PRIME COST

The following provision of these conditions shall apply where prime cost sums are included in the contract bills or arises as a result of Architect's instructions given in regard to the expenditure of provisional sums in respect of any materials or goods to be fixed by the Contractor.

Such sums shall be understood to mean the net cost to be defrayed as a prime cost after deducting any trade or other discount and shall include Sales Tax (where applicable) and other taxes and duties and the cost of Packing carriage & delivery provided that where in the opinion of the Architect the Contractor has incurred expense for special packing or special carriage, such special expenses shall be allowed as part of the sums actually paid by the Contractor.

Such sums shall be expended in favour of such persons as Architect shall instruct and all specialists, merchants, tradesman or other who are nominated by the Architect to supply materials or goods are hereby declared to be supplies to the Contractor and are referred to in these conditions as "Nominated Suppliers" provided that the Architect shall not (Save where the Architect and Contractor shall otherwise agree) nominate as a supplier a person who will not enter into a contract of Sales which provides (Interalia).

- A. That the materials or goods to be supplied shall be to the reasonable satisfaction of the Architect/Site Engineer.
- B. That the nominated supplier shall make good by replacement or otherwise any defects in the materials or good supplied which appears within such a period as is therein mentioned and shall bear any expenses reasonably incurred by the Contractor as a direct consequence of such defects provided that :-
 - i. Where the materials or goods have been used on fixed such defects are not such that examination by the Contractor ought to have revealed them before using or fixing.
 - ii. Such defects are due solely to defective manufacture of material in the roads supplied and shall not have been caused by improper storage by the Contractor or misuse or by any act neglect of the Contractor.
- C. That delivery of the materials or goods supplied shall be commenced and completed at such times as the Contractor may reasonably direct.

All payments by the Contractor for materials or goods supplied by a nominated supplier shall be in full and shall be paid within 30 days of the end of the month during which delivery is made.

CLAUSE - 67 : ADVANCE PAYMENTS AND SECURED ADVANCES

- 67.1 Advance payment for works actually executed should not be made. Payment should only be made after the detailed measurement of the work are taken and recorded and the Contractor's bill for the same is approved by the competent authority

67.2 Secured advances on the security of materials brought to site may be made to the contractors whose contract is for finished work. In such cases, the competent authority may sanction advances up to an amount not exceeding 75% of the value (as assessed by themselves) of such materials, provided that they are of an imperishable nature and that formal agreement is drawn up with the contractor under which the bank secures a lien on the materials and is safeguarded against losses due to the contractor postponing the execution of the work or to the storage or misuse of the materials, and against the expense entailed for their proper watch and safe custody. Recoveries of advances so made should not be postponed until the whole of the work entrusted to the contractor is completed. They should be made from his bills for works done as the materials are used, the necessary deductions being made whenever, the item of work in which they are used are billed for.

CLAUSE -68. MOBILISATION OF ADVANCE

The Owner may pay to the Contractor maximum 5% of the contract value as mobilization advance at the interest rate per annum prevailing at the time of grant of such advance and subsequent revision, if any, against submission of suitable Bank Guarantee of equivalent amount as approved by the Owner. Such mobilization advance together, with interest thereon shall be recovered from the contractor's from first running bill on pro-rata basis up to 5th running bill so that total mobilization advance inclusive of interest is recovered before final bill.

CLAUSE -69.INSPECTION OF WORKS

The proposed work covered under this tender during its progress can also be inspected by the Chief Technical Examiner/Technical Examiner or by an Officer of the Vigilance Cell of the authority on behalf of the Owner/Architects.

CLAUSE -70.SUPERITENDENCE SUPERVISION

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

CLAUSE -71. FAILURE BY CONTRACTORS TO COMPLY WITH OWNER'S/ARCHITECT'S INSTRUCTIONS

If the contractor after receipt of written notice from the Owner and/or the Architect requiring compliance within ten days fails to comply with such further drawings and/or Owner's/Architect's instructions, the Owner through the Architect or other person, may employ other person to execute any such work whatsoever that may be necessary to give

effect thereto and pay all cost incurred in connection therewith and same shall be recoverable from the contractor by the Owner on the certificate of the Architect as a debt or shall have right to deduct same from any moneys due or to become due to the contractor.

CLAUSE -72.CO-OPERATION

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

CLAUSE -73.PERMITS AND LICENCES

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

CLAUSE -74.POSSESSION PRIOR TO COMPLETION

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

CLAUSE -77.LAND FOR CONTRACTOR'S ESTABLISHMENT

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

CLAUSE -78.METHOD OF MEASUREMENT

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

CLAUSE -79.ACTION WHERE NO SPECIFICATION

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

**CLAUSE -80. CONTRACTOR NOT TO DEPOSIT MATERIALS IN A MANNER
THAT MAY INCONVENIENCE TO THE PUBLIC**

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

CLAUSE -81. ACTION WHEN WHOLE OF SECURITY DEPOSIT IS FORFEITED

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

- a) To rescind the contract(of rescission notice writing to the contractor under hand of the Owner/Architect shall be conclusive evidence), and in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the Owner.
- b) To employ labour paid by the Owner and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and price of materials (of the amount of which cost and price of a certificate of the Architect/Owner shall be final and conclusive against the contractor) and crediting him with the same rates as if it had been carried out by the contractor under the terms of this contract the certificate of Architects/Owner as to the value of the work done, shall be final and conclusive against the contractor.
- c) The measure up the work of the contractor, and to take such part thereof as shall be unexecuted, out of his hands, and to give it to another contractors to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess the certificates in writing of the Architects/Owner shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by the Owner under the contract or any money due to him by the Owner under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or a sufficient part thereof.

In the event of any of above courses being adopted by the Owner/Architects the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements, or make any advances on account of, or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescind under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum or any work thereto for actually performed under this contract,

unless, and until the Owner/Architects will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

CLAUSE -82.GUARANTEE FOR THE SPECIALISED WORKS

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

CLAUSE -83.TESTS/RESULTS/SITE REGISTERS ETC.

The contractor will be required to maintain the following registers at site of work and should produce the same for inspection of the Owner/Architects whenever desired by them.

Typical proforma are enclosed (Refer Table I to VI).

i)	Table - I	Proforma of Materials at Site Account.
ii)	Table - II	Proforma of Accounts of Secured advance (to be submitted along with bills if necessary)
iii)	Table - III	Proforma of Hindrance to work.
iv)	Table - IV	Proforma of Running Account Bill.
v)	Table - V	Proforma of Memorandum of payment.
vi)	Table – VI	Proforma of Secured advance on materials held at site.

Contractor will have to submit their Running Account Bills in printed form shown in Table.

CLAUSE -84.INCOME TAX/SALES TAX ON WORKS CONTRACT

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

CLAUSE -85. AGREEMENT

The successful contractor shall sign the agreement as per draft agreement annexed within 15 days from the date of issue of formal work order and he shall pay for all stamps and legal expenses, incidental thereto. However, the written acceptance of the tender by the Employer/Consultant on behalf of Employer will constitute a binding contract between the Employer and the person so tendering whether such formal agreement is or is not subsequently executed.

CLAUSE -86.TECHNICAL EXAMINATIONS

The project work covered under this tender during its progress is subject to inspection by the Chief Technical Examiner/Technical Examiner/Central Vigilance Commission, Govt. of India or by an officer of the Vigilance Cell of the Authority, the Contractor will be required to extend all assistance or facilities for such inspections.

CLAUSE -87. NO COMPENSATION FOR ALTERATION IN, OR RESTRICTION OF WORK TO BE CARRIED OUT

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

CLAUSE -88.DECLARATION

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

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

Signature of Tenderer

Witness : Address : _____

Date : _____

SAFETY CODE

SCAFFOLDING :

- i) Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground or from solid construction except in the case of short duration work, which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made either of good quality wood or steel. The steps shall have a minimum width of 450mm and a maximum rise of 300mm. Suitable hand holds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than 1/4 to 1(1/4 horizontal and 1 vertical).
- ii) Scaffolding or staging more than 4 m above the ground floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly bolted, braced or otherwise secured at least 1 m above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from the building or structure.
- iii) Working platforms, gangways and stairway shall be so constructed that they do not sag unduly or unequally and if the height of the platform, gangway or stairway is more than 4 m above ground level or floor level, they shall be closely boarded and shall have adequate width and be suitably fenced as described in (ii) above.
- iv) Every Opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 m.

Wherever there are open excavations in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.
- v) Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. in length while the width between side rails in rung ladder shall in no case, be less than 290mm for

ladder up to and including 3 m. in length. For ladders this width shall be increased at least 20mm. for each additional meter of length.

- vi) A sketch of the ladders & scaffolding proposed to be used shall be prepared and approval of the engineer obtained prior to construction.

OTHER SAFETY MEASURES :

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

EXCAVATION AND TRENCHING :

- ix) All trenches, 1.25 m or more in depth shall at all time be supplied with at least one ladder for each 30m in length or fraction thereof. The ladder shall be extended from bottom of the trench to at least 1 m above the surface of the ground. Sides of trenches, which are 1.5 m or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m of edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
- x) The Contractor shall take all measures on the site of the work to protect the public from accidents and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any such persons or which may with the consent of the Contractor, be paid to comprise any claim by any such person.

DEMOLITION :

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

PERSONAL SAFETY EQUIPMENTS :

- xii) All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the person employed on the site & maintained in a condition suitable for immediate use and the Contractor should take adequate steps to ensure proper use of equipment by those concerned.
 - a. Workers employed on mining asphaltic materials, cement & lime mortar shall be provided with protective footwear and protective goggles.
 - b. Those engaged in white washing and mixing or stacking of cement bags or any material, which is injurious to eyes shall be provided with protective goggles.
 - c. Those engaged in welding works shall be provided with welder's protective eyesight lids.
 - d. Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficient safe intervals.
 - e. When workers are employed in sewers and manholes which are in use, the Contractor shall ensure that the manhole covers are opened & are ventilated at least for an hour before the workers are allowed to get into manholes and the manholes so opened shall be cordoned off with suitable railing & provided with warning signals or boards to prevent accident to the public.
 - f. The Contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age 18 are employed on the work of lead painting, the following precautions should be taken.
 - i. No paint containing lead or lead products shall be used except in the form of paste or ready-made paint. Paints like vinyl and epoxies having toxic fumes should be applied after following all precautions laid down by manufactures.
 - ii. Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
 - iii. Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
- xiii) When the work is done near any public place where there is risk of drawings all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

HOISTING MACHINES :

- xiv) Use of hoisting machines and tackle including their attachments, encourage and supports shall conform to the following stands or conditions :
 - 1a. These shall be of good mechanical constructions sound material and adequate strength and free from patent defect and shall be kept in good repair & in good working order.
 - b. Every rope used in hoisting or lowering materials or as means of suspensions shall be of durable quality and adequate strength and free from patent defects.
 - 2. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in-charge of any hoisting machine including any scaffolding winch or give signals to operators.
 - 3. In case of every hoisting machine & of every chain ring hook, shackle shovel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine & all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load. Each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - 4. In case of departmental machines, the safe working load shall be notified by the Engineer. As regards Contractor's machine the Contractor shall notify the safe working load of the machine to the engineer whenever he brings any machinery to site of work & get it verified by the Engineer concerned.
- xv) Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards, hoisting appliances should be provided with such means as will reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.
- xvi) All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use.
Adequate washing facilities should be provided at or near places or work.
- xvii) These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safe code shall be named therein by the Contractor.

- xviii) To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the Contractor shall be open to inspection by the labour Officer, Engineer of the Department or their representatives.
- xix) Notwithstanding the above clause from (i) to (xviii) there is nothing in these to exempt the Contractor from the operations of any other Act or Rule in force in the Republic of India.

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

1. APPLICATION :
These rules shall apply to all building & construction works in charge of Proposed Electrical works and Computer wiring of BALANGIR Branch of INDIAN BANK, BALANGIR.
2. DEFINITION :
 - 2.a. "Workplace" means a place at which, at an average 50 workers are employed in connection with construction work.
 - 2.b. "Large Work place" means a place at which an average 500 or more workers are employed in connection with the construction work.
3. FIRST AID :
 - 3.a. At every work place, there shall be maintained in readily accessible place first aid appliance including an adequate supply of sterilised dressings and sterilised cotton wool. The appliance shall be kept in good order and in large work place they shall be placed under the charge of a responsible person who shall be readily available during working hours.
 - 3.b. At large work place, where hospital facilities are not available within easy distance of the works, first aid posts shall be established and be run by a trained compounder.
 - 3.c. Where large work place are remote from regular hospitals an indoor ward should be provided with one bed for every 250 employees.
 - 3.d. Where large work places are situated in cities, towns in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to the hospitals. At other work places, some conveyance facilities such as a car, shall be kept readily available to take injured person or persons suddenly taken ill to the nearest hospital.
4. DRINKING WATER :
 - 4.a. In every work place there shall be provided & maintained at suitable places easily accessible to labour sufficient supply of cold water fit for drinking.

- 4.b. Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- 4.c. Every water supply of storage shall be at a distance of not less than 15m from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well, which is within the proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with trap door, which shall be dust and waterproof.
- 4.d. A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.
5. **WASHING & BATHING PLACES :**
 - 5.a. Adequate washing and bathing places shall be provided separately for men and women.
 - 5.b. Such places shall be kept in clean & drained condition.
6. **SCALE OF ACCOMMODATION IN LATRINES AND URINALS :**
 There shall be provided within the precincts of every work place latrines and urinals in an accessible place, and the accommodation, separately for each of them shall not be less than the following scale :-

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

In particular case the Engineer shall have the power to vary the scale where necessary.
7. **LATRINES AND URINALS FOR WOMEN :**

 If women are employed, separate latrines and urinals screened from those men and marked in the vernacular in conspicuous letters "For Women Only" shall be provided on the scale laid in Rule 6. Those for men shall be similarly marked "For Men Only". A poster showing the figure of a man or a woman shall also be exhibited at the entrance of latrines for the respective sex. There shall be adequate supply of water close to the urinals and latrines.
8. **LATRINES AND URINALS :**
 All latrines shall be provided with septic tanks or leach pits in case of small units. All the latrines shall be kept in good sanitary conditions.
9. **CONSTRUCTION OF LATRINES :**

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

10. DISPOSAL FOR EXCRETA :

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

11. PROVISIONS OF SHELTER DURING REST :

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

12. CRECHES :

- a. At every work place at which 50 or more women workers are ordinarily employed there shall be provided two huts for the use of children under the age of 6 years belonging to such women one hut shall be used for infants game and play and the other as their bed room. The hut shall not be constructed on a lower standard than the following :-

- i) Thatched roofs.
- ii) Mud floors and walls.
- iii) Planks spread over the mud floor & covered with matting.

The huts shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the place clean. There shall be two days in attendance. Sanitary utensils shall be provided to the satisfaction of the Health Officer of the area concerned. The use of the hut shall be restricted to children, their attendants and mothers of the children.

- b. Where the number of women workers is more than 25 but less than 50, the Contractor shall provide at least one hut and one dai to look after the children of women workers.
- c. The size of crèche or crèches shall vary according to the number of women workers.
- d. The crèche or crèches shall be properly maintained and necessary equipments like toys etc., shall be provided.

13. CANTEEN :

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

The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contract.

PROFORMA FOR APPLICATION FOR

EXTENSION OF TIME PERIOD

1. Name of the Contractor :
2. Name of the work as given in the Agreement :
3. Agreement No. :
4. Estimated Tender amount. :
5. Date of commencement of work as per Agreement :
6. Period allowed for completion of work as per Agreement :
7. Date of completion Stipulated in Agreement. :
8. Period for which extension of time has been given previously :
- a. Ist extension vide Architect/ Employer's letter
No. Date Month Days
- b. 2nd extension vide Architect/Employer's letter
No. Date " "
- c. 3rd extension vide Architect/Employer's letter
No. Date " "

d. 4th extension vide Architect/Employer's letter

No.	Date	"	"
-----	------	---	---

Total Extension previously given

9. Reasons for which extensions have been previously given (Copies of the previous application should be attached) :

10. Period for which extension is applied for :

11. Hindrances on account of which extension is applied for with dates on which hindrance occurred and the period for which these are likely to last :

a. Serial No. :

b. Nature of hindrance :

c. Date of Occurrence :

d. Period for which it is likely to last :

e. Period for which extension required :
for this particular hindrance.

f. Overlapping period if any with :
reference to item (e) above

g. Net extension applied for :

h. Remarks if any :

12. Extension of time required for :
extra work

13. Details of extra work and the :
amount involved.

a. Total value of extra work :

b. Proportionate period of extension of :
time on estimated amount put to tender

14. Total extension of time required :
for 11 & 12

Submitted to the Architect/Employer
 Date

Signature of the Contractor.

RUNNING A/C BILL

- i) Name of Contractor/Agency :
- ii) Name of work :
- iii) Sr. No. of this bill :
- iv) No. and date of previous bill :
- v) Reference to Agreement No. :
- vi) Date of written order to commerce :
- vii) Date of completion as per agreement :

Sr no.	Item Description	Unit	Rate (Rs.)	<u>As per tender</u> Qty. Amount (Rs.)
1	2	3	4	5

<i>Upto previous R/A Bill</i> Qty. Amount (Rs.)	<u>Upto date (Gross)</u> Qty. Amount (Rs.)	Present Bill Qty. Amount (Rs.)	Remark
6	7	8	9

Note: 1) If part rate is allowed for any item, it should be indicated with reasons for allowing such a rate.

2. If adhoc payment is made, it should be mentioned specifically.

Net value since previous bill

**ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ON MATERIALS
HELD AT SITE BY THE CONTRACTOR**

No. 1	Item 2	Quantity 3	Unit 4	Amount 5	Remarks 7
----------	-----------	---------------	-----------	-------------	--------------

Total value of materials at site
Secured Advance @% of above value B
CERTIFIED (I) That the materials mentioned above have actually been brought by the contractor to the site of the work and no advance on any quantity of any of this item is outstanding on their security, (ii) that the materials are of imperishable nature and are all required by the contractor for use in the work in connection with the items for which rates of finished work have been agreed up on.

Dated signature of Site
Engineer Preparing the bill

Designation_____

Dated signature of Bank's
Architects

(Name of the Architects)

Dated signature of Contractor.

C E R T I F I C A T E

The measurements on the basis of which the above entries for the Running Bill No. _____ were made have been taken jointly on _____ and are recorded at pages _____ to _____ of measurement book No. _____.

Signature and date of
Contractor

Signature and date of Architect's

Signature and date of
site engineer.

The work recorded in the above-mentioned measurements has been done at the site satisfactorily as per tender drawings, conditions and specifications.

Architect.

Site Engineer/ Bank's Engineer

MEMORANDUM FOR PAYMENT

R. BILL No. _____

- | | |
|--|-------------------------|
| 1. Total amount due since previous bill
(D) (A+B)* | Rs. _____ |
| 2. P.V.A. on account of escalation in
price of steel, cement and other
materials and labour as detailed in
separate statements enclosed | Rs. _____ |
| 3. <u>DEDUCTIONS:</u> | |
| (i) Secured advance paid in the previous
R.A. bill | Rs. _____ |
| (ii) Retention money on value of works
as per accepted tenders : upto date
amount | Rs. _____ |
| Less : Already recovered | (-) Rs. _____ |
| Balance to be recovered | Rs. _____ Rs. _____ |
| (iii) Mobilisation advance, if any | |
| (a) Outstanding amount
(Principal + interest) as on date | Rs. _____ |
| (b) To be recovered in this bill | Rs. _____ |
| (iv) Any other departmental material cost
to be recovered as per contract, if
any | Rs. _____ |
| (v) Any other departmental service
charges to be recovered if any, as per
contract (water, power etc.) Enclose
statement | Rs. _____ |
| Total deduction as per contractor | Rs. _____ (-) Rs. _____ |
| Net amount payable as per contract (E-F) | Rs. _____ (G) |

(Rupees) in words

The bill amounting to (both figures and words) has been scrutinised by me after due test check of the measurement of works as required and is recommended for payment.

Dated signature of Bank's Engineer

In charge of the project

STATUTORY DEDUCTIONS:

1.	Total amount due (E)	Rs. _____
2.	Less : Income Tax payable	Rs. _____
	NET PAYABLE :	Rs. _____

The figure given in the Memorandum for Payment has been verified and the bill passed for payment (words and figures).

Date :

Signature of Premises Officer

*For A & B refer Running Bill.

SPECIAL CONDITIONS OF CONTRACT

PRICE VARIATION ADJUSTMENT (P.V.A.)

Price variation adjustment for all materials including labour in partial modification of the provision made else where in this contract regarding the quoted rate being not subject to any variations price adjustments to the value of work payable to the contractor at tendered rates shall be paid towards variation in the prices of materials and labour in the manner specified hereunder. If after the written order to commence the work and during the operating period of this contract including any authorized extensions of the original stipulated period of completion.

- a) In partial modification of the stipulation that the rates quoted shall be firm and shall not be subject to any exchange variations, labour conditions, fluctuations in railway freight and any conditions whatsoever under this clause any increase or decrease in prices of materials and labour rates shall be adjusted on the basis of formula given below:

i) Materials: $V_m = (70/100) [0.88 v - (C+S+X)] \times \{(WI - WIO)/WIO\}$

Where :

V_m = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

V = Value of work done excluding advances on materials, if any during the period under reckoning.

C = Cost of grey cement used in the work.
Covered by clause 22 of the General Instruction to the contractor and Special Conditions.

S = Cost of Steel used in the work.

X = Cost of any other materials supplied at fixed basis rate.

WI = Average All India Wholesale Price Index for all commodities for the period under reckoning as published in the RBI Bulletin. In case the tender is opened on or before 10th day of a month, on Index, of previous month shall be considered.

WIO = All India Wholesale Price Index for all Commodities during the month of opening of the tender, as published in the RBI Bulletin.

ii) Labour: $VL = (30/100) [0.88 V - (C - S)] \times \{(I - IO)/IO\}$

Where:

VL = Variation in labour cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

$V, S \& S$ = As stated under (i) above.

- I = Average All India Consumer Price Index Number for Industrial Workers declared by Labour Bureau, Government of India as published in R.B.I., Bulletin, during the period under reckoning.
- IO = All India Consumer Price Index Number for Industrial Workers declared by labour Bureau, Government of India, as published in RBI, Bulletin during the months of opening of the tender. In case the tenders are opened on or before 10th day of a month the Index for last month shall be considered.
1. Adjustments based on the above formulae will be made for each bill as and when the indices are published. The contractors shall submit the bill for price adjustment with detail calculations.
 2. The downward adjustment on account of labour element will be made only if the minimum wages also register corresponding fall compared to the minimum wages prevailing in the month of opening of the tenders.
 3. The price adjustment clause shall be applicable only for the work executed during the contract period including authorized extension, if any. In case the work is not completed within the contract period including authorized extension and the provision of liquidated damages has to be enforced, this adjustment clause will not be applicable for work done during that period. It is also clarified that price adjustment clause will not be applicable to any extra variation items, the rates of which are based on prevailing market rate.
 4. In view of the price adjustment in cost being covered as above, no other adjustments viz., increase or decrease due to statutory measures/levies, etc., will be allowed for any reason whatsoever.
 5. In case the bill is submitted to the Asst. Engineer prior to 15th of a particular month, index for that month will not be reckoned for calculating the average indices for arriving at the adjustment. If however, the bill is submitted on or after 15th, the Index for that particular month shall be taken into consideration.
 6. Immediately on award of contract, the contractor shall register with the appropriate authority obtain Sales Tax Registration No. and produce the details thereof to the Bank within 30 days of the award of the work and in no case later than the submission of his first running bill.
 7. The successful tenderers may also note that the Bank reserves the right to deduct Sales Tax on works contract applicable and to be levied under relevant Act, from the bills and amount due to them from the Bank and remit the same directly to the Government in case they are not submitting the proof/evidence of having paid the Sales Tax on work executed under this contract.

TECHNICAL SPECIFICATIONS FOR CONCEALED CONDUIT LAYING

1. Type and size of Conduit :

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

2. Accessories : Only screwed type of accessories are to be used.

3. Conduit Joints :

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

4. Protection against dampness and rust :

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

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

5. Bends in Conduits :

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

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

650/1100V PVC copper wire -----	in 20mm dia conduit -----	in 25mm dia conduit -----
1.5 Sq.mm	4 Nos.	10 Nos.

2.5 Sq.mm	4 Nos.	10 Nos.
4.0 Sq.mm	3 Nos.	8 Nos.
6.0 Sq.mm	2 Nos.	6 Nos.
10 Sq.mm	--	4 Nos.
16 Sq.mm	--	2 Nos.
7. Fish Wire :		

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

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

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

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

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

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

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

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

It will be mandatory for the contractor to get the layouts approved by the Bank's Engineer/Architect when the conduits are laid and bound to steel reinforcement rods, before he can release the work for casting of floor/roof.

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

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

10. Fan Hook Boxes :

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

TECHNICAL SPECIFICATION FOR ELECTRICAL WIRING

1. GENERAL REQUIREMENTS

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

2. MATERIALS

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

3. MAIN SWITCH GEAR

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

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

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

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

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

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

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

Lettering shall be done for identification of switches as directed. The contractor shall submit fully dimensioned drawing of the board with the physical position of the switches and other components to the Architects for their approval before the same is fabricated.

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

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

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

6. DISTRIBUTION BOARDS

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

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

The minimum ratings of phase and neutral busbars shall be 67% of the total rating of fuse ways. Above 32 Amps Neutral Busbars may be half the size of the Phase Bus bars.

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

Cables shall be connected to a terminal by crimped lugs.

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

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

7. CABLES AND CONDUCTORS

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

8. TESTING OF INSTALLATION

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

a) Polarity of switches :

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

b) Insulation test :

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

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

c) Earth continuity Test

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

d) Earth Resistance Test

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

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

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

10. SPECIAL SPECIFICATIONS

- a) Before fixing all switches, fittings etc. should be produced before Engineer in Charge and get approved.
- b) All metal switch boards and switch/regulator boxes to be used in work shall be painted with two coats of anti rust primer (red oxide paint) prior to erection. After erection they shall be again painted with two coats of enamel paint of approved quality.
- c) Before execution of any portion of conduit work for wiring neat proper layout should be made out by the contractor and got approved from the Engineer in charge. For this purpose contractor is advised to get acquainted with the layout drawings of the Consultant/Architect.
- d) While laying the conduits for concealed wiring in the ceiling or in the beams and columns and before casting the contractor must ensure that all the inlets and both ends of the conduits are plugged by means of dead end socket so that no foreign matter can enter the conduits and choke them.
- e) Damage to any fitting during erection and before handing over the installation by contractor shall be set right or replaced by the contractor at his own cost.
- f) Caution Board of proper size wherever required, shall be provided, as per I.E.E. regulations for which no extra payment will be admissible.
- g) Any repairs done to wall etc. should match with the surrounding surface otherwise same will be got done through Building Contractor at the cost of the Electrical Contractor.
- h) Earthing Installation shall be done in the presence of Engineer in charge or his representative.
- i) The installation should not be energized without adequate earthing.
- j) The I.C. switches and Distribution Fuse Boards shall be provided with neat lettering in block letters with paint for identification of the I.C. switches and for the points connected to each fuse way of the D.B's for which no extra payment will be admissible.
- k) Completion Drawings

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

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

i) Locations of Main Switch Board, Distribution boards (with the circuit numbers controlled by them).

ii) The runs of mains and submains.

iii) Location of lights, fans, wall sockets, other power consuming devices together with type of fittings and fixtures including circuit numbers.

iv) Position of lightning conductors and route of running conductor.

v) Position of Earthing Stations for light and power and Lightning Conductor Installation.

and giving the following information on the plans :-

a) Name of work with job no. Accepted Tender No.

b) Date of completion.

c) Name of the Place.

d) Name and Signature of the Contractor.

e) Scale of Drawings.

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

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

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

TECHNICAL SPECIFICATION FOR CABLE INSTALLATIONS

1. General

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

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

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

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

2. Laying of Cables

a) Direct in Ground

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

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

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

b) Inside Building

Cables shall be laid on walls/ceilings/structure, unless specified otherwise, with M.S. brackets and suitable clamps or over claw type aluminium cleats fixed on M.S. brackets,

spaced not more than 450mm apart. G.I. Bolts of suitable sizes are to be grouted on the wall properly for fixing the brackets.

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

No Cable jointing is allowed between two terminals points.

3. Cable Jointing

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

4. Testing of Cables

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

After installation and end termination, the cables shall be again subjected to the above test. Insulation value for HT Cables shall not be less than 100 megohms and for MV Cables 1.0 megohm.

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

5. Testing of Installation

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

TECHNICAL SPECIFICATION FOR EARTHING INSTALLATION

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

1. Earthing Electrode

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

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

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

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

2. Masonry Inspection pit

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

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

3. Locations for Earth Electrodes

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

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

4. Earth Busbar

a) Galvanised M.S. Flat

The busbar shall be of suitable size and length, as specified in the Schedule of Items, heavily galvanised and having adequate number of drilled and tapped holes 30mm apart, complete with G.I. bolts, nuts, washers for securely connecting the earth leads and earth continuity conductors. The busbar shall be fixed on wall, having clearance of 6mm from wall with spacing insulators with at least the numbers 13mm (1/2") G.I. rag bolts spaced about 0.46 M (1'-6") apart.

b) Copper Flats

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

5. Value of Earth Resistance

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

For sub-station, the value is 1 ohm.

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

TECHNICAL SPECIFICATIONS FOR L.C. INSTALLATION

Specifications :

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

1. Conductor for L.C. System

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

2. Air Terminals

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

3. Conductors on Parapet

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

4. Vertical Down Conductors

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

5. Protection Against Damage and corrosion

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

6. Metallic Objects near conductors

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

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

7. Joints & Bonds

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

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

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

8. Earth Stations :

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

9. Installation Tests :

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

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

The above tests shall be made in the presence of the representative of the Engineer-in-charge/Architects and the results recorded.

10. Completion Drawings :

This shall be submitted along with the final bill.

ADDITIONAL CONDITION FOR ELECTRICAL INSTALLATION

1.0 General Requirements :

The installation shall generally be carried out in conformity with the requirements of the Indian Electricity Act, 1910 as amended upto date and the Indian Electricity Rules, 1956 framed there under, the relevant regulations of Electric Supply Authority concerned, and also the specifications laid down in the Indian Standard IS 732-1963 Code of practice (revised) for Electrical Wiring Installations (System Voltage not Exceeding 650 volts) and IS 2309-1969 Code of practice for the protection of Building and Allied Structures against lightning. The wiring shall also be according to the specification of Local Authority and as per N.E.C.

Electrical Installation work shall be carried out only by contractor (s) holding valid contractor's licence issued by the concerned state Government as applicable to the voltage grade and nature of electrical installation work in accordance with rule 45 of Indian Electricity Rules, 1956 with its latest amendments. The work shall also be carried out under the direct supervision of a person holding a certificate of competency and by a person holding Licence / permit issued or recognized by the concerned state Government.

2.0 Materials :

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

3.0 Eligibility, Licence, Supervision

Only Contractor having valid contractors' licence issued by the concerned State Government for doing the category of work as per tender shall be eligible for award of contract. A Xerox copy of such licence shall be enclosed with the contract offer.

All work shall be carried out under direct supervision of Licensed electrical Supervisor and Tradesman, certified by Electrical Authority for the requisite part.

The contractor shall ensure that all the above statutory licenses are renewed before they lapse, during tenure of this work.

Owner shall have the right to call for verification of all licenses as and when felt necessary by them or their authorized representative.

The licensed supervisor shall be available at site at all reasonable hours to receive instruction from the owner/ Architect/ Engineer.

4.0 Insurance

Contractors rates should include for necessary Insurance Policies on Companies approved by the owner to cover all the risks against theft, fire hazard, workmen compensation, injury to persons, animals things etc during the progress of the work as detailed in conditions of Contract and produce all such documents for Architect's verification before submission to the Owner. For further clarification in this respect please refer Clause No. 26 of the General Conditions of Contract.

5.0 Site Condition :

The contractor should inspect the work site, where the works under this contract are to be carried out and obtain for himself at his own responsibility all the information which may be necessary for the purpose of the successful execution of the contract.

He must also make himself conversant with all the local conditions, means of access to the site of work, nature, extent of transport facilities & character of the work and supply of materials, conditions affecting labour and other matters that may affect his tender.

The work shall be carried out in coordination with the interior decoration work of the building using modular type furniture, partitions, false ceiling with recessed type wireways, cabling and earthing arrangements and installation of modular type switches, socket outlets and other terminal outlets required for telephone (Internal & External), Computer terminals etc.

6.0 Contractor to Ensure

Notwithstanding whatever has been stated elsewhere the contractor will take action as follows :

- a) The agreement is to be executed as per tender terms within 30 days of the date of work order.
- b) The initial formalities as per tender are to be completed within 30 days of the work order.
- c) Various insurance policies as per tender are to be effected within 30 days of the work order.
- d) Valid labour licences are to be submitted before commencement of work.

The contractor is to note that incase he fails to attend any of the above, the owner may take action as per tender terms and the Owner will be within his rights to forfeit the E.M.D. and cancel the work order.

7.0 Contractor to Provide

The contractor will have to arrange for the work to be supervised by a whole time licensed Supervisor holding requisite part, who will be available at all reasonable hours at site to receive instructions from the owner / Architect/ Engineer.

The contractor shall provide and maintain proper shed/storage space for storage and protection of tools, materials etc and arrange for watchman for protection of materials and executed work.

The mistries and supervisors of the contractor shall always carry with them measuring tape (30 metre) one test lamp with leads and one neon tester and make

available to the Architect/Owner/Engineer all the measuring instrument and tools that are required for checking the work.

The contractor shall keep one copy of all drawings and specifications of the work at the site in good order to be available to the Owner and its Architect and for their respective representatives for inspection or for such other purpose the owner or its Architect may require.

The concealed conduits in slabs are to be firmly tied down using 22 gauge M.S. binding wire before casting the slabs. The conduits in wall chases are to be fixed using approved staples. The chasing of walls is to be done preferably using a cutting machine electrically operated. No bends will be used for the drops in slabs or beams but the pipe will be given the required bend /shape using bending machine at site to suit the site conditions.

The contractor shall maintain a Site Instruction Book wherein the directions or instructions given at site by the Owner/Architect will be recorded (except where such directions or instruction are given by separate letters) and he will carry out the directions/ instruction recorded in the Site Instruction Book and signed by the Owner/Architect/Site Engineer.

8.0 Deviations from Specifications & Drawings

In the tendering stage, no deviations shall be permitted.

During actual installation, the Owner or their authorized representative shall check progress and carry out inspection on work done as well as equipment brought to site. Any work / equipment found at variance from those specified, shall be rectified / replaced as to be instructed to the contractor.

Any deviation permitted by the Owner during the course of work shall be written by the authorized representative in Site Order Book to be maintained at site by the contractor.

9.0 Procurement of Steel

The Electrical Contractor will have to procure steel for his requirement on his own and in his own cost. No extra cost whatsoever shall be made to the contractor other than those specified in the schedule of work.

10.0 Procurement of Cement

The Electrical Contractor will have to procure cement for his requirement on his own and in his own cost. No extra cost whatsoever shall be made to the contractor other than those specified in the schedule of work.

11.0 Protection of work and property

The contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's property from injury or loss arising in connection with this contract. He shall make good any such damage, injury or loss, except due to causes beyond the contractor's control and not due to his fault or negligence. He shall take adequate care and steps for the protection of the adjacent property. The contractor shall take all necessary precautions for the safety and protection of his employees on the works and shall comply with all applicable provisions of Govt and Municipal safety laws and building codes to prevent accidents, or injury to persons or property on about or adjacent to his premises where the works are being performed.

12.0 Scaffolding

The contractor shall make his own arrangement for provisions of necessary scaffolding for the work and include the same in the rates quoted by them. No additional cost shall be payable other than specified in the specified tender schedule.

13.0 Wires & cables

All wires and cables to be used in electrical wiring shall have ISI marking on it.

14.0 Conduits

The conduits to be used in wiring shall conform to IS 9537 (Part II)-1981 or latest in all respects and shall have ISI marking on it.

15.0 Prices

The rates quoted by the contractor shall be inclusive of all taxes and duties including Sales Tax on works contract and shall be firm through out the tenure of the contract (including extension of time granted if any) and will not be subject to any fluctuations due to increase in cost of materials, labour, excise duty, octroi, sales tax etc. However PVA clause as stated elsewhere (clause-43 of G.C.C.) will not be in force and applicable.

16.0 Order of Precedence in case of variance

If the stipulation of the various contract documents be at variance in any respect one will override the other only (in so far as they are at variance) in order of precedence given below:

- i) Notice inviting tender
- ii) Schedule of Items
- iii) Technical specification
- iv) Special condition
- v) General conditions of Contract

17.0 Date of Commencement and completion

The date of commencement will be 7(seven) days from the date of issue of Work Order or the date on which the contractor is instructed to take possession of site whichever is earlier.

The work will be completed within 30 days.

18.0 Co-operation / Co-ordination

If due negligence, non-cooperation, non coordination of the contractor executed work of other agency / contractor suffers damage, loss, etc. the loss, damage etc will be got rectified by the Site Engineer and the cost will be recovered from the defaulting contractor. The decision of the Site Engineer / Architect / Owner in the matter will be final and binding on the contractor.

19.0 Payment

Certificate of payment can not be issued until the initial tender formalities are observed by the contractor.

The Architect may in his discretion with the prior consent of the owner allow interim payments in the Running Account Bills of the Electrical Contractor considering the progress of work.

The above payments shall be subject to deduction of Retention Money.

20.0 Test Certificate

- 20.1 The Electrical contractor shall have to furnish manufacturer's test certificates, if asked by the Architect, for particular material(s) brought at site for incorporation in work.
- 20.2 The contractor shall have to carry out insulation tests, continuity tests, earth resistance test and any other tests required as per specification and furnish test certificates to Owner / Architect the same in quadruplicate duly signed by them with their licence no. supervisors licence no. and his signature certifying the above.
- 20.3 Certificates of High Voltage Insulation Tests, Conductivity Tests and any other tests required as per specifications are to be procured and furnished by the Electrical Contractor. The contractor will have to get the metal conduit pipes tested as per IS specification from an approved test laboratory and use them at site only if

the pipes pass the tests. The testing will be done by the contractor at his cost. Samples for testing will be drawn jointly by the Owner's Engineer /Architect / PMC representative and contractor's representative. For other items like cables, Copper Wires etc manufacturer's test certificate / ISI Certificate will be submitted by the contractor for each lot of materials delivered at site.

21.0 Licensees Requirements etc.

The contractor should ensure that all installations conform to local / Statutory Regulations and requirements. In case of any deficiency / discrepancy or contradictions found in the technical Specifications or Schedule of items, these shall be immediately brought to the notice of the Owner / Architect and the same should be got modified before execution of the work.

22.0 Effecting Connection & Commissioning, Electrical Inspection etc.

- 22.1 The Owner will apply for Service Connection. However, all the necessary forms required for Electrical Service Connection and Electrical Inspection etc are to be collected / arranged and to be filled up by the contractor and submitted to Authority after the endorsement by the Owner along with necessary fees, if required. Owner will reimburse the necessary / statutory fees paid by the contractor on his behalf, on production of the money receipt of the Inspecting Authority.
- 22.2 The contractor will have to carry out the formalities with the licensee including negotiations for the same with licenses for the subject installation as necessary.
- 22.3 The contractor has to take all initiative/responsibility towards approval of the electrical installation and permission to switch on power supply and get the installation passed by the Electrical Inspector/Local Authority in all respects including any variations, alterations and modifications after instructions of Licensee/Inspector/Authority, if any for permanent energisation. All the above are in the Contractor's scope of work and the necessary cost for the same should be included in the rates quoted by them. No other payment shall be made whatsoever in this connection except the payment of the statutory fees against production of documentary evidences only.
- 22.4 The contractor shall submit to the Electrical Authority necessary Test Forms, Electrical Layout Drawings. Single line Diagram etc as required, for approval and permanent energisation of the installation without delay.

23.0 Handing Over/Taking Over

The assets will be taken over from the contractor within about one month after the issue of completion certificate by the Owner/ Architect. The contractor shall be responsible for the installation and its maintenance in all its aspects and respects until the installation is taken over by the Owner or his Authorized representative. In case the handing over / taking over is delayed, extra financial implications for

providing security etc by the Contractor shall be considered separately on the merits of the case.

23.1 Handing and taking over report and inventories/statements (in quadruplicate) at the time of handing over shall be prepared. The reports and inventories shall be signed by :

- a) The Contractor (only the relevant papers)
- b) The Site Engineer and
- c) Competent Authority in the Bank

The following inventories/statements shall be prepared:

- i) Inventory of Electrical fittings and fixtures (Lights/ Fans/ Panels/ DBs/ Switches/ Plug Sockets etc)
- ii) Information folders & test reports for installation like electrical pumps.
- iii) Surplus electrical goods including (fans, tubes, lights etc) pending further instruction for disposal from higher authorities
- iv) Information folders & test reports for electrical installations.
- v) Warranties issued by suppliers/manufacturers of electrical equipments.
- vi) The Engineer on behalf of the Bank associated with this operation shall be apprised of the importance to carry out periodic inspections (at two months interval) for defects not rectified or fresh ones that crop up and issuing notices for this rectification to concerned contractors and final inspection just before the expiry of the defects liability period.

24.0 Extension of Completion Time

Whenever the contracted work is not likely to be completed within the contract period due to non availability of site clearance, suitable extension shall be prayed from the Owner well ahead on the prescribed proforma as per tender terms stated elsewhere.

25.0 Completion Drawing

On completion of work, the contractor shall submit three copies of ammonia print along with one tracing /reproducible transparency for each “as built” drawings as detailed in the specifications, along with final bill, if not submitted earlier.

1. Electrical Lay out Drawing for each floor indicating location for Electrical points, switch boards, distribution boards, main switch board, socket outlets, power points, telephone points (Internal & External), computer terminals, UPS & raw power supply terminals, floor wire, starting from the point of supply to the terminals including earthing as necessary.

2. Plan with cable routes for L.T. Panels, switches, MCB DBs (UPS & Raw power etc.), telephone lines from CT boxes to terminals, computer lines from HUB etc.
3. Control schematic diagram drawings
4. Single Line Diagrams with bill of quantities, cable scheduling etc.

26.0 Safety Code –Electrical Installation

The Safety Code will be as per Indian Electricity Rules 1956 and subsequent amendments made upto date and as per various prevailing IS Codes of practice for Electrical Installation.

Temporary Electrical Wiring shall be done in the manner as advised by the Owner/Architect with necessary supports when drawn overhead and proper clamping / fixing and should conform to requirement of Indian Electricity Rules, various IS codes of Practice for Electrical Installation and Local Regulations.

27.0 Deduction of Income Tax

Deduction of Income Tax from the Contractor's bill shall be made as laid down in Memo No. 275/19/72 ITO dt 29.5.72 of the Ministry of Finance (Department of Revenue and Insurance) Govt. of India with its amendments if any.

Works Contract Tax as per the present provision shall be recovered from all payments. Revision of tax / duty structures or fresh imposition thereof shall be liable for deduction from the R.A bills or any amount due to the contractor.

LIST OF MATERIALS OF APPROVED BRAND AND OR MANUFACTURERS FOR ELECTRICAL WORK

SINo	Material Description	Make of materials
01.	M.S.conduit pipe	BEC/Supreme/Kalinga/Any other make with ISI mark

02.	M.S.conduit accessories	Universal/ Laxmi
03.	Switch,socket,holder,ceiling rose,modular switch box etc	MKIndia WRAPAROUND/ABB SchneiderElectric(LKFuga)
04.	PVC insulated wires	Finolex
05.	Bakelite sheets	Hylam/Formica
06.	PVC insulated cables (with ISI mark only)	NICCO/INCAB/Fort Gloster/CCI/ Universal
07.	Cable lugs	Dowells/Ismal/Clipon
08.	Cable jointing kits	M Seal
09.	Switch gears viz isolator switches,SFU,starter,change over switch,HRC fuse holder etc	EE/Siemens/L&T/Havells/GEC Alsthom/Indo-Asian
10.	MCB, RCCB and associated	MDS/L & T/Standard/Indo -Asian/ABB distribution board
11.	Instrument viz voltmeter etc	AE/IMP/Meco
12.	Selector switch	Kaycee/Saltzer
13.	Energy meters	GEC/Capital/Jaipur/Havells
14.	LT Distribution Board (Fabricated)	ESS/VeeESS/Technocrat/East Coast or any other standard panel manufacturing unit.
15.	Kitkats	Anchor
16.	HRC fuses	EE/Siemens/L&T/Indo-Asian
17.	CTs & PTs	AE/Kappa/Eastern Switchgear

SINo	Material Description	Make of materials
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18.	Metal clad plug socket	Crompton/Havells/Indo-Asian
19.	Trim tubes/ Structurella	Decon
20.	CFL/Fluorescent fixtures	Philips/Crompton/Bajaj/PACE/K-Lite/
21.	Lamps (CFL/Fluorescent)	Philips/Bajaj/Crompton/ECE/ Sylvania/Osram
22.	Cabin & Pedestal fans	Crompton/Khaitan/Usha/Orient Almonard
23.	Exhaust fan	Almonard/Crompton Khaitan
24.	Adhesive & Insulating Tapes	Steelgrip
25.	G.I.Pipes	TATA/Jindal/Prakash
26.	Clip-in-type modular switches & plug sockets.	MK(India)WRAPAROUND/ABB Schneider Electric(LKFuga)

BOQ FOR ELECTRICAL WORK OF INDIAN BANK BRANCH AT BALANGIR.					
Sl No	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	(A) FOR SYSTEM ROOM & UPS				
	ELECTRICAL & COMPUTER WIRING				

1	Supply of all required materials and recessed wiring to proposed light points / fan/ exhaust fan/ call bell points with 2 (1x1.5 sq.mm) PVC insulated copper wire run inside 20 mm PVC conduit pipe of 16 SWG or flexible conduit pipe laid on surface of wall / ceiling along with 1 (1 x 1 sq.mm.) PVC insulated copper wire as earth continuity conductor and complete in all respect including with use of clip-in type modular plates, boxes, switches, ceiling roses, junction boxes with bakelite cover as specified and making good to the damages caused and complete as per direction of Engineer-in-charge / Consultant. Make by LK Fuga walnut cover, Crabtree piccadilly etc.				
(a)	One light point controlled by one switch.	5.0	Nos		
	Rate in words :				
2	Supply of all required materials and recessed wiring to 2/3 pin clip-in modular type 5 Amp plug socket points with 2 (1 x 1.5 sq.mm.) PVC insulated 1100/650 V grade stranded single core copper wire run inside 20 mm PVC Conduit (16 S.W.G) pipe laid on surface wall / ceiling along with 1 (1 x 1 sq.mm) PVC insulated copper wire as earth continuity conductor and complete in all respect including 3 pin 5 A sockets, switches, plates, boxes and cover as specified and making good to the damages caused and complete with all respect as per the direction of Engineer-in-charge / Consultant.				
(a)	Existing	2.0	Nos		
	Rate in words :				
(b)	Separate	1.0	Nos		
	Rate in words :				
3	Supplying and fixing of A/C 11-18 Amps stator complete with 20Amps socket in modular type box .(MDS/North-West make)	1.0	Nos		
	Rate in words :				
4	Supply of all required materials and recessed wiring to circuit / sub-mains with following number and sizes of PVC insulated 1100/650 volt grade stranded copper wire run inside 20 mm PVC conduit (16 S.W.G.) pipe laid on surface of wall / ceiling and copper wire as earth continuity conductor and complete in all respect including making good to all damages caused and as per the direction of Consultant and Engineer-in-charge.				
(i)	Recessed wiring with 2 (1 x 2.5 sqmm) + 1 x (1 x 1 sqmm) copper wire from B.D.B. to individual switch board.	30.0	Mtrs		
	Rate in words :				

(ii)	Recessed wiring with 2 (1 x 6 sqmm) + 1 x (1 x 2.5 sqmm) copper wire from main panel to AC point.	20.0	Mtrs		
	Rate in words :				
5.(i)	Supplying, laying and connection of same as item no 1 but with 2 pair 0.51 sqmm tinned CU conductor through PVC rigid ISI marked pipe from telephone point to Krone DB complete with RJ-11 telephone socket modular type in MS conceal box.	1.0	Nos		
	Rate in words :				
(ii)	Supply of all required materials and recessed wiring with the following sizes telephone wires and including the fixing of junction box and distribution box and complete with all respect as per the instruction of Engineer-in-charge or Consultant.				
	2 pairs telephone cable.	30	Mtr		
	Rate in words :				
6	Supply of all required materials and recessed wiring to 4 Nos. of 5 Amp. Socket for computer including the modular boxes, clip-in-type plates, switches, screws and complete in all respect making good to the damages caused as per the direction of Engineer-in-charge / Consultant. Make by LK Fuga walnut cover, Crabtree piccadilly etc.	4.0	Nos		
	Rate in words :				
7	Recessed conduit wiring to be hidden inside the table, false ceiling & panels from Computer Distribution Board to computer terminals with (2.5 sqmm x 2 + 1 sqmm x 1) PVC single core copper wire in PVC / Conduit / Casing capping of thicker gauge fixed properly as per direction of Engineer-in-charge / Consultant.	80.0	Mtrs		
	Rate in words :				
8	Recessed wiring (Hidden inside false ceiling) to submain with 2 x 6 sqmm 1.1 KV PVC insulated single core multistrand copper wire of ISI marked conforming to I.S. 694 / 1990 in 20 mm dia non metallic conduit heavy duty conforming to IS 6946 / 1973 earth continuity with 1 x 2.5 sqmm dia 1.1 KV PVC insulated single core multistrand copper wire from main panel to UPS incoming distribution board and complete with all accessories and connection as per the direction of Engineer-in-charge / Consultant.	20.0	Mtr		
	Rate in words :				
9	Supply of all required materials, installation, testing and commissioning company made board of approved make on the				

	wall and making good to all damages caused and complete with all respect as per direction of Engineer-in-charge.				
(i)	UPS Incoming Distribution Board : Incoming : 63 Amp DP MCB-1 NO. Outgoing : 40 Amp DP MCB - 2Nos.	1.0	Set		
	Rate in words :				
(iii)	UPS Outgoing Distribution Board : 40 Amp DP ELCB - 1 No. Outgoing 32 Amp DP MCB - 2 Nos, 10A SP MCB 2 Nos.	1.0	Set		
	Rate in words				
10	Earthing installation as per IE rule conforming to IS 3043-1987 or its latest amendent by making earth station with 600x600x3 mm(minimum) thick copper plate electrode to be installed such that its top edge shall be at a minimum depth of 3.3 mtrs below ground level after preparation of ground with charcoal,sand and salt connecting the 25x3mm copper lead in strip (upto 10mtr length) by bolting and brazing to the copper plate complete with brass bolt of suitable length double nuts and washer including supply and fixing of 50mm dia 2.3 mtr long partly perforated GI pipe with funnel for watering arrangement. NB:The copper plate to be buried under 3.3 mtr depth from ground level,including CI pit 300x300mm with necessary brick wall.(For UPS earthing)	1.0	Set		
	Rate in words				
11	Supplying of all required materials laying under Ground /wall/floor making and termination and testing of No-8 Copper wire to be inside PVC Conduit pipe complete as per Directionof ENG.	50.0	Rmt		
	Rate in words				
12	Installation and testing of 1 x 40 W box type fittings with lamp with 20mm dia, 300mm long down rod as applicable mounted on ceiling , round block , socket , screws as applicable and complete with all respect as per the instruction of engg-in-charge / consultant .	1.0	EA		
	Rate in words :				
13	Installation and testing of 18 watt CFL lamp on existing angle / batten holder as required as per direction of Engineer-in-charge.	1.0	EA		

	Rate in words :				
14	Fixing of indoor decorative luminaire with mirror optics comprising bright anodised aluminium reflector and vacuum metalized T5 paralite covers for low glare applications well as wall mounting Philips/Crompton Greaves Make Cat. No T5CQ11314EB (for reference) box type slim for 3x 14W T5 FTL lamp and complete with all other accessories and making good in all respect with complete testing as per the instruction of Engineer-in-charge. (for detail see the list of approved materials)	1.0	EA		
	Rate in words :				
15	Installation and testing of 400mm sweeps of a.c. wall fan complete with fan blades, down rod, canopies, capacitor etc including supply of sundry materials, making connection from the suitable point outlet and as per Electrical Engineer-in-Charge and consultants.	1.0	EA		
	Rate in words :				
16	Installation and testing of 300 mm sweep 900 RPM exhaust fan, suitable for operation and 230 V 50Hz A.C. supply complete with a set of propeller blade, tripod leg for motor mounting, ring frame, blades and gravity louver with wire mesh complete assembly including making hold of suitable size for housing of exhaust fan, making good to be damages caused, connection of exhaust fan with 3 core 1.5 sqmm PVC insulated and stranded copper cord as per direction of consultant or Engineer-in-charge.	1.0	EA		
	COMPUTER NETWORKING & EPBAX WIRING				
1	Supply of all required materials, fixing/termination of cat-6 information outlet box supply of jack and complete as per direction of consultant or Engineer-in-charge.	10.0	Nos		
	Rate in words :				
2	Supply of all required materials, laying underground/walls/floor, hidden inside the table and testing of cat-6 lan cable, ISI marked only to be laid inside PVC Conduit pipe complete as per direction of consultant or Engineer-in-charge.	150.0	Mtrs		
	Rate in words :				
3	Supply & fixing of all Required Materials wire manager, self 2nos etc 19"/12" 9u Rack .	1.0	Nos		
	Rate in words :				

4	Supply Installation of 16 port Switch testing and commissioning of company made D link (as per direction of consultant or Engineer-in-charge.)	1.0	Set		
	Rate in words :				
5	Supply Installation of 24 port patch panel testing and commissioning of company made D link (as per direction of consultant or Engineer-in-charge.)	1.0	Set		
	Rate in words :				
6	Supply and fixing of 2mtrs long patch coard.	10.0	EA		
	Rate in words :				
7	Supply and fixing of 1mtrs long patch coard.	10.0	EA		
	Rate in words :				
	TOTAL FOR YSTEM ROOM & UPS				
	(A) FOR BANKING HALL & BM ROOM				
1	Supply of all required materials and recessed wiring to proposed light points / fan/ exhaust fan/ call bell points with 2 (1x1.5 sq.mm) PVC insulated copper wire run inside 20 mm PVC conduit pipe of 16 SWG or flexible conduit pipe laid on surface of wall / ceiling along with 1 (1 x 1 sq.mm.) PVC insulated copper wire as earth continuity conductor and complete in all respect including with use of clip-in type modular plates, boxes, switches, ceiling roses, junction bozes with bakelite cover as specified and making good to the damages caused and complete as per direction of Engineer-in-charge / Consultant. Make by LK Fuga walnut cover,Crabtree piccadilly etc.				
A	One point controled by one switch.	30.0	Nos		
	Rate in words :				
B	Two point controled by one switch	2.0	Nos		
	Rate in words :				
C	Call bell point wiring.	1.0	Nos		
	Rate in words :				
2	Supply of all required materials and recessed wiring to 2/3 pin clip-in modular type 5 Amp plug socket points with 2 (1 x 1.5 sq.mm.) PVC insulated 1100/650 V grade stranded single core copper wire run inside 20 mm PVC Conduit (16 S.W.G) pipe laid on surface wall / ceiling along with 1 (1 x 1 sq.mm) PVC insulated copper wire as earth continuity conductor and				

	complete in all respect including 3 pin 5 A sockets, switches, plates, boxes and cover as specified and making good to the damages caused and complete with all respect as per the direction of Engineer-in-charge / Consultant.				
A	Existing board	4.0	Nos		
	Rate in words :				
B	Separate board	4.0	Nos		
	Rate in words :				
3	Supply of all required materials and recessed wiring to circuit / sub-mains with following number and sizes of PVC insulated 1100/650 volt grade stranded copper wire run inside 20 mm PVC conduit (16 S.W.G.) pipe laid on surface of wall / ceiling and copper wire as earth continuity conductor and complete in all respect including making good to all damages caused and as per the direction of Consultant and Engineer-in-charge.				
A	Recessed wiring with 2 (1 x 2.5 sqmm) + 1 x (1 x 1 sqmm) copper wire from B.D.B. to individual switch board.	130.0	Mtr		
	Rate in words :				
B	Recessed wiring with 2x (1 x 6sqmm) + 1 x (1 x 4 sqmm) copper wire from MDB To A/C starter and MDB to LDB.	50.0	Mtr		
	Rate in words :				
4	Supply of all required materials and recessed wiring with the following sizes telephone wires and including the fixing of junction box and distribution box and complete with all respect as per the instruction of Engineer-in-charge or Consultant.				
	2 pairs telephone cable.	30.0	Mtr		
	Rate in words :				
5	Supply of all required material and fixing of phone socket, modular box and complete with all respect as per the instruction of Engineer-in-charge or Consultant.	2.0	Nos		
	Rate in words :				
6	Supply of all required materials and recessed wiring to 4 Nos. of 5 Amp. Socket & one Indicator for computer including the modular boxes, clip-in-type plates, switches, screws and complete in all respect making good to the damages caused as per the direction of Engineer-in-charge / Consultant. Make by LK Fuga walnut cover, Crabtree piccadilly etc.	9.0	Nos		
	Rate in words :				
7	Recessed conduit wiring to be hidden inside the table, false	130.0	Mtr		

	ceiling & panels from Computer Distribution Board to computer terminals with (2.5 sqmm x 2 + 1 sqmm x 1) PVC single core copper wire in PVC / Conduit / Casing capping of thicker gauge fixed properly as per direction of Engineer-in-charge / Consultant.				
	Rate in words :				
8	Recessed wiring (Hidden inside false ceiling) to submain with 2 x 4 sqmm 1.1 KV PVC insulated single core multistrand copper wire of ISI marked conforming to I.S. 694 / 1990 in 20 mm dia non metallic conduit heavy duty conforming to IS 6946 / 1973 earth continuity with 1 x 2.5 sqmm dia 1.1 KV PVC insulated single core multistrand copper wire from UPS out going to Computer Distribution Board and complete with all accessories and connection as per the direction of Engineer-in-charge / Consultant.	20.0	Mtr		
	Rate in words :				
9	Supply of all required materials, installation, testing and commissioning company made board of approved make on the wall and making good to all damages caused and complete with all respect as per direction of Engineer-in-charge.				
	ight Distribution Board (single phase double door BDB. ABB, SIEMENS or equivalent make.) Incoming : 40 Amp. DP MCB. - 1No. Outgoing : 10 Amp. SP MCB - 12 Nos.	1.0	Set		
	Rate in words :				
10	Computer Distribution Board (12 way single phase BDB) Incoming :40 Amp D.P ELCB-1NO. Out going 10 Amp SP MCB - 10 Nos.	1.0	Set		
	Rate in words :				
11	Supply of all required materials and fixing of 14 - 20 Amp. Starter, Modular box with 16 Amp. Socket for Air-conditioner machine and complete with all respect as per the direction of Engineer-in-charge / Consultant.	1	Set		
	Rate in words :				
12	Supply, delivery, installation, testing and commissioning of L.T. indoor wall/floor mounted type distribution boards made out of 2 mm thick CR sheet metal duly acid treated, primed and painted with 2 coats of enamel paint of approved shade,				

	having hinged door and compartmental arrangement for each equipment and busbar chamber on the top of the panel running horizontal throughout its length duly dust, damp and vermin proof having provision for cable/conduit entry, earthing stud as per specification mentioned below, duly factory wired conforming to the relevant ISS and as per special conditions of contract, making good to the damages caused and complete as per direction of Engineer-in-charge or Consultant.				
	Main panel : Incoming 63Amp TPN MCCB - 1 No. 63Amp FP Change over - 1 Nos. RYB Indicator - Set – 1 0-500 V voltmeter - 1 No. 0-100 Amp Ampere Metre - 1 No. 4 x 100 Amp Electrolytic copper busbar - 1 Set. 4 x 100 Amp. E.L.C.O. B/B - 2 Sets. Out going 63 Amp DP MCB - 4 Nos. for UPS input D.B. 32 Amp DP MCB - 2Nos. For L.D.B. 32 Amp DP MCB - 3Nos. For A.C. machine 16 Amp DP MCB - 2Nos.for signage	1.0	Set		
	Rate in words :				
13	EARTHING				
	Supply and installation including all connections of earth electrode stations comprising of :				
	40 mm dia class - 'B' G.I. Pipe 2.5 mt. long.				
	Digging of earth pit, placing of G.I. Pipe in the pit and filling up of the same with a mixture of 150 kg. Salt 50 kg. of charcoal and rest with good clay earth all firmly compact into the pit.				
	30 cm. at the top portion at the pipe having a G.I. Hinges shall be enclosed in a brick work chamber built up to 10 cm below G.I. and upto 30 cm above G.I. Chamber which shall have 450 mm x 450 mm inside dimension will have a G.I. Hinge cover with the bare frame firmly grouted.	2.0	Nos		
	Rate in words :				
14	Supplying of all required materials laying under Ground /wall/floor making and termination and testing of No-8 Copper wire to be inside PVC Conduit pipe complete as per Direction of ENG.	50.0	Mtr		
	Rate in words				
15	CABLING WORK				
	Supply of all required material and laying, testing,				

	commissioning of following sizes 1.1KV grade PVC insulated armored aluminium power cable excavation of cable trench of 750 mm deep in all kinds of soil, 150 mm thick and filling, brick covering, back filling etc. including laying in pre-laid Hume pipe/G.I. pipe and fixing only of cable channel support as supplied and painted with red oxide and aluminium paint including supply of cleats, supports, fasteners and accessories etc. properly clamping of cable and complete with all respect as per the instruction of Engineer-in-charge or Consultant.				
	3 x ½ x 35sqmm Ar. AL cable.	25.0	Mtr		
	Rate in words :				
	FITTING OF FIXTURES:-				
16	Fixing of superior type call bell buzzer on entrance door way and as per the direction of Engineer-in-charge or Consultant.	1.0	Nos		
	Rate in words :				
17	Fixing of Pati type Fluorescent fittings with 1x40 watt Fluorescent type tube.	4.0	Nos		
	Rate in words :				
18	Fixing of surface mounted Fitting suitable for use with 2X28 W CFL(Philips cat no TMS 122/128E HF) with electronic ballast	11.0	Nos		
	Rate in words :				
19	Installation and testing of 18 watt CFL lamp on existing angle / batten holder as required as per direction of Engineer-in-charge.	4.0	Nos		
	Rate in words :				
20	Fixing of indoor decorative luminaire with mirror optics comprising bright anodised aluminium reflector and vacuum metalized T5 paralite covers for low glare applications well as wall mounting Philips/Crompton Greaves Make Cat. No T5CQ11314EB (for reference) box type slim for 3x 14W T5 FTL lamp and complete with all other accessories and making good in all respect with complete testing as per the instruction of Engineer-in-charge. (for detail see the list of approved materials)	1.0	Nos		
	Rate in words :				
21	Installation and testing of spot lights with CFL Lamp - P&F recessed 1 x 18w PL Spot lights, fixture with lamps of make GE Philips .Wipro , Opelite , Crompton, Clipsal. Bajaj ,Thorn or equivalent make	4.0	Nos		

	Rate in words :				
22	Installation and testing of 400mm sweeps of a.c. wall/cealing fan complete with fan blades, down rod, canopies, capacitor etc including supply of sundry materials, making connection from the suitable point outlet and as per Electrical Engineer-in-Charge and consultants.	2.0	Nos		
	Rate in words :				
23	Installation and testing of following sweeps of a.c. ceiling fan (USHA, CROMPTON, BAJAJ, ORIENT make) complete with fan blades, down rod, canopies, capacitor etc including supply of sundry materials, making connection from the suitable point outlet but excluding cost of fan regulator complete as required and as per the direction of Engineer-in-charge.	11.0	Nos		
	Rate in words :				
20.0	Insalation of 300 mm sweep 900 RPM exhaust fan, suitable for operation and 230 V 50Hz A.C. supply complete with a set of propeller blade, tripod leg for motor mounting, ring frame, blades and gravity louvre with wire mess complete assembly including making hold of suitable size for housing of exhaust fan, making good to be damages caused, connection of exhaust fan with 3 core 1.5 sqmm PVC insulated and stranded copper cord as per direction of consultant or Engineer-in-charge.	2.0	Nos		
	Rate in words :				
	TOTAL FOR BANKING HALL & BM ROOM				
	1. TOTAL (A+B) FOR ELECTRICAL WORK				