

STATE BANK OF INDIA



TENDER DOCUMENT
FOR

AIR CONDITIONING WORKS

AT

**SME BRANCH AT RAJPUR ROAD,
DEHRADUN. UTTRAKHAND**

CLIENT:

STATE BANK OF INDIA
REGIONAL BUSINESS OFFICE-5,
REGION-1,
1, New Cantt. Road ,
Dehradun-248001.

ARCHITECT:

M/s AAKAAR.
D-168, TOP FLOOR,
NEW RAJENDER NAGAR,
NEW DELHI-110060.
TEL. NO. - 09811126863.

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STATE BANK OF INDIA**Notice Inviting Tender**

State Bank Of India invites online Tenders on item rate basis from the Bank's Empanelled Contractors Delhi Circle category for, **Rs. 5 Lakh to 15 Lakh** for the **Air Conditioning Works** at **State Bank of India, AT SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTARAKHAND**. Details of tenders are as under:

1.	Name of Work	:	Air Conditioning Works at State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN. UTTARAKHAND.
2.	Time allowed for completion	:	60 Days from date of handing over of the site.
3.	Earnest Money Deposit	:	4,000.00/- (Four Thousand Rupees only) to be deposited online
4.	Initial Security Deposit	:	2% of the total value of the contract including Earnest Money.
5.	Total Security Deposit	:	3% of Total Contract Value
6.	Pre- Bid Meeting		N/A
7.	Last date and time of receipt of Tenders	:	23/10/ 2025 up to 11.00 A.M
8.	Address at which the Tenders are to be submitted	:	Technical Bid and Price Bid to be uploaded Online www.tenderwizard.com/SBIETENDER
9.	Date and time of opening of Tenders	:	23/10/ 2025 at 3.00 p.m.
10.	Place of opening Tenders	:	State Bank of India, The Regional Manager, Regional Business Office Region -1,1, New Cantt Road Dehradun-248001
11.	Defects Liability Period	:	12 months from the date of handing over of the project to the satisfaction of Bank.
12.	Validity of Offer	:	60 days from the date of opening the Tenders.
13.	Liquidated Damages	:	At the rate of 0.5% of the contract value per week which Subject to a maximum of 5% of the accepted contract value.

14.	Note	:	If the vendor is found to have delayed the running/in hand project beyond the prescribed time limit specified in related tender document, the vendor will not be issued the new tender until completion of the previous delayed work.
15.	Additional Performance Deposit (ASD) / Additional Performance Guarantee (APG)	:	ASD ASD/ APG shall be deposited by the bidder whose bid is accepted only if their bid amount is 10% or more below to the estimated cost put to tender The a Amount of such ASD / ASG shall be the difference amount between 90 % of the estimated cost and the quoted price / bid Bank Guarantee or FDR receipt favoring SBA but drawn on any other nationalized Bank may also be accepted as ASD / APG. ASD/APG should be deposited/submitted within 7 days of date of issue of letter of Acceptance.

Mode of Submission of Tender:

State Bank of India has the right to accept/reject any or all tenders without assigning any reasons.

For E-Tender related queries: **Service provider:** M/s Antares Systems Limited, Registered Office at: - #24, Sudha Complex, 3rd Stage, 4th Block, Bangalore – 560079. Ph: - 080-49352000/40482000 Fax:-080-49352034

Help Desk: Contact Person: Mr. Pravesh Mani / Mr Abhay / Mr. Sanu

Mobile no. 090443 14492/ 097089 66660/ 096864 49042

(E-mail: praveshmani.t@antaressystems.com)

For any other queries the vendors may contact the Architect **M/s AAKAAR**, D-168, Top Floor, New Rajinder Nagar, New Delhi-110060, TEL:-9811126863.

STATE BANK OF INDIA

SIGNATURE OF THE TENDERER

INSTRUCTIONS TO THE TENDERERS

1.0 Scope of Work

State Bank of India invites online Tenders on item rate basis from the Bank's Empanelled Contractors Delhi Circle category from Upto Rs. **5 Lakh to Rs. 15 Lakh** for the **Air Conditioning** works at **State Bank of India SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND.**

1.1 Site and its Location

The proposed work is to be carried out at **State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND.**

2.0 Tender Documents

- 2.1 The work has to be carried out strictly according to the conditions stipulated in the tender consisting the following documents and the most workmen like manner.

Instructions to Tenderers

General Conditions of Contract

Special Conditions of Contract

Additional Specifications

Drawings

Price Bid

- 2.2 The above documents shall be taken as complementary and mutually explanatory of one another but in case of ambiguities or discrepancies, shall take precedence in the order given below:

- a) Price Bid
- b) Additional Specifications
- c) Technical Specifications
- d) Drawings
- e) Special Conditions of Contract
- f) General Condition of Contract
- g) Instruction to Tenderers

- 2.3 Complete set of tender documents including relative drawings can be downloaded from e-tendering portal of the e-tendering service provider engaged by SBI.

- 2.4 The tender documents are not transferable.

3.0 Site Visit

- 3.1 The tenderer must obtain himself on his own responsibility and his own expenses all information and data which may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The tenderer is requested satisfy himself regarding the availability of water, power, transport and communication facilities, the character quality and quantity of the materials, labour, the law and order situation, climatic conditions, **liaison requirements with local authorities/ authorities maintaining the campus, security agencies guarding the campus, traffic regulations in and around the site etc;**

The tenderer will be fully responsible for considering the financial effect of any or all the factors while submitting his tender.

4.0 Earnest Money

- 4.1 The tenderers are requested to submit the Earnest Money as mentioned in NIT.

4.2 EMD in any other form other than as specified above will not be accepted. Tender not accompanied by the EMD in accordance with clause 4.1 above shall be rejected.

4.3 No interest will be paid on the EMD.

4.4 EMD of unsuccessful tenderers will be refunded/ returned within 30 days of award of Contract.

4.5 EMD of successful tenderer will be retained as a part of security deposit.

5 Initial Security Deposit

The successful tenderer will have to submit a sum as mentioned in the NIT as part of ISD, within a period of 7 days of acceptance of tender.

6 Security Deposit

6.1 Total security deposit shall be as per NIT. Out of this Nil% of contract value is in the form of initial security deposit, which includes the EMD. Balance 3% shall be deducted from the running account bill of the work at the rate of 10% of the respective running account bills i.e., deduction from each running bill account will be 10% till total 3% of contract value is reached. 50% of the total security shall be paid to the contractors on the basis of architect's certifying the virtual completion. The balance 50% would be paid to the contractors after the defects liability period as specified in the contract provided he has carried out all the work and attended to all the defects in accordance with the condition of the contract and clearance, if any, of the observations of the CTE of CVC.

6.2 No interest shall be paid to the amount retained by the Bank as Security Deposit.

7 Signing of Contract Documents

The successful tenderer shall be bound to implement the contract by signing an agreement and conditions of contract attached herewith within 7 days from the receipt of intimation of acceptance of his tender by the Bank. However, the written acceptance of the tender by the Bank will constitute a binding agreement between the Bank and successful tenderer whether such formal agreement is subsequently entered into or not.

8 Completion Period

Time is essence of the contract. The work should be completed in all respects in accordance with the terms of contract within a period as specified in the NIT from the date of handing over of the site.

9 Validity of Tender

Tenders shall remain valid and open for acceptance for a period of ninety days from the date of opening price bid. If the tenderer withdraws his/her offer during the validity period or makes modifications in his/her original offer which are not acceptable to the Bank without prejudice to any other right or remedy the Bank shall be at liberty to forfeit the EMD.

10.0 Liquidated Damages

The liquidated damages shall be as per NIT

11.0 Rate and Prices:

11.1 The tenderers shall quote their rates for individual items both in words and figures. In case of discrepancy between the rate quoted in words and figures the unit rate quoted in words will prevail. If no rate is quoted for a particular item the contractor shall not be paid for that item when it is executed.

The amount of each item shall be calculated and the requisite total is given. In case of discrepancy between the unit rate and the total amount calculated from

multiplication of unit rate and the quantity the unit rate quoted will govern and the total amount will be corrected.

- 11.2.1 The tenderers need not quote their rates for which no quantities have been given. In case the tenderers quote their rates for such items those rates will be ignored and will not be considered during execution.
- 11.2.2 The tenderers should not change the units as specified in the tender. If any unit is changed the tenders would be evaluated as per the original unit and the contractor would be paid accordingly.
- 11.3 The tenderer should not change or modify or delete the description of the item. If any discrepancy is observed he should immediately bring to the knowledge of the Architect/Bank.
- 11.4 Each page of the BOQ shall be signed by the authorized person and cutting or over writing shall be duly attested by him.
- 11.5 Each page shall be totaled and the grand total shall be given.
 - 11.5.1 The rate quoted shall be firm and shall include all costs, allowances, taxes, levies etc. and deduction at source for Income Tax, Work Contract Tax etc. will be made as per statutory rules.
 - 11.5.2 The contractor shall be required to conduct necessary tests of the water brought from tube well or any other outside source, from approved laboratory.
 - 11.5.3 The contractor is required to comply with all act of the Government relating to labour and the rules and regulations made there under from time to time and to submit at the proper times all particulars and statements required to be furnished to the appropriate authorities.

12.0 Nominated Contractor for Allied work, if any.

The contractor shall get allied works executed only through Contractors already in SBI's Panel, for different categories of works.

**Annexure-I
UNDERTAKING**

(Scan Copy to be uploaded after duly signing and putting seal / stamp of the Firm)

To
**REGIONAL MANAGER,
STATE BANK OF INDIA
Regional Business Office,
REGION-1, 1, New Cantt. Road,
Dehradun-248001.**

Dear Sir,

Reg.: Air Conditioning Works at State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND.

1. I / We refer to the tender notice issued by you for Electrical works and allied works in connection with the above.
2. **I undertake to submit in Hard copy the tender document along with all terms & Conditions, Specifications and subsequent annexure and corrigendum's duly signed and stamped by authorized representative/ signatory on becoming L1. However we accept all the terms and conditions along with the specifications, Drawings, Layouts etc defined in the tender documents.**
3. I / We hereby offer to perform, provide, execute, complete and maintain the works in conformity with the drawings, designs, conditions of contracts, specifications, schedule of quantities relating to the works
4. I / We have satisfied myself / ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions, subject to above, I / We do hereby agree, should this tender be accepted in whole or in part, to:
 - a. Abide by and full fill all the terms and provisions of the said conditions annexed here to,
 - b. Complete the works within **the period as mentioned in NIT** as per the work programme enclosed with the tender in two or three shifts if considered necessary by the Employer / Consultants at no extra cost to the Employer.
5. I / We have deposited an **earnest money as per NIT** which, I / We note, will not bear any interest and is liable for forfeiture and I shall not be allowed to participate in any of the tender of SBI for a period of 06 months from the date of opening of this tender
 - I. If our offer is withdrawn within the validity period of acceptance by the Employer.
 - Or
 - II. If the contract agreement is not executed by us within 7 days from the date of receipt of the letter of acceptance.
 - Or
 - III. If we fail to pay the initial security deposit as stipulated.

Or

IV. If the work is not commenced within 3 days after issue of work order.

6. I / We understand that you are not bound to accept the lowest or any tender you receive.

Signature of Authorized Person of the Firm)

(Seal of the Firm)

Name of the Signatory :

Date :

Place :

AGREEMENT

This agreement made on the _____ day of _____ Two Thousand _____ BETWEEN State Bank of India a corporation constructed under the State Bank of India Act, 1955 and having its Local Head Office at New Delhi and many other places, (hereinafter called "the Employer") of the one part and M/s _____ through its _____ having its registered office at _____ (hereinafter called "the Contractor") of the other part.

WHEREAS the Employer is desirous of executing Certain Works to be **carried out at State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND**. to be carried out as per Schedule-I, to this agreement and has caused Drawings, Bills of Quantities and Specification describing the work to be done, prepared by **M/s AAKAAR, D-168, Top Floor, New Rajender Nagar, New Delhi-60**, (hereinafter called "the Architects").

AND WHEREAS the said Drawings, the Bills of Quantities marked pages _____ to _____ (inclusive) and the Specifications as stated have been signed by or on behalf of the parties hereto:

AND WHEREAS the Contractor has agreed to execute the work upon the Conditions of Tender and the Conditions of Contract and further subject to the Special Conditions set forth in Schedule-II hereto attached (hereinafter collectively referred to as "the said Conditions") as per the said Drawings and as described in the said Specification and included in the said Bills of Quantities for the sum of Rupees _____

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the sum of Rupees _____ to be paid at the time and in the manner set forth in the said Conditions, the Contractor shall upon and subject to the said Drawings and described in the said Specification and Bills of Quantities.
2. The Employer shall pay to the Contractor the said sum of Rs. _____ or such other sum as shall become payable hereunder at the
3. The term "The Architects" in the said conditions shall mean **M/s AAKAAR, D-168, Top Floor, New Rajender Nagar, New Delhi-60**, or in the event of their ceasing to be Architects for the purposes of this Contract, such other persons as shall be nominated for that purpose by the Employer, not being a person to whom the contractor shall object for reasons considered to be sufficient by the Employer mentioned in the said Conditions. Provided always that no persons subsequently appointed to be Architects under this Contract shall be entitled to disregard or overrule any decision or approval or direction given or expressed by the Architects for the time being.
4. The said Conditions, Specifications and Priced Bills of Quantities shall be read and construed as forming part of this agreement, and the parties hereto shall respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their parts respectively in such Conditions, Specifications and Priced Bills of Quantities contained.
5. This agreement is subject to jurisdiction of courts in Delhi only.
6. **The Regional Manager, Regional Business Office, Region-1, 1, New Cantt. Road, Dehradun-248001.** shall exercise powers on behalf of the said Employer for the purpose of the Contract Agreement.

7. Whereas both the parties agree to sign the following annexure Annexed to this Agreement in token of their acceptance.
- (i) Agreement
 - (ii) General Conditions of contract.
 - (iii) Special Condition of Contract.
 - (iv) Safety Codes.
 - (v) Specifications.
 - (vi) Material Testing & Their Frequency.
 - (vii) List of Approved Makes/ Brands
 - (viii) Priced Bill of Quantities.
 - (ix) Drawings.
8. The Bank shall pay the contractor such sum as shall become payable hereunder at the times and in the manner specified in the said Conditions mentioned in the General Conditions of Contract.
9. Whereas the Contractor hereby undertakes and agrees to carry out and complete the works within **60 Days** from the date of handing over site or 15 days from the date of issue of letter of acceptances, whichever is later. The Contractor agrees and has deposited the sum of Rs. _____ by way of Initial Security Deposit for due fulfillment of this Contract for the Works. It is agreed that the Security Deposit shall be deducted from each running bills and refunded to the contractor as per clause 2 of the General Conditions of the Contract Annexed herewith.
10. Whereas it is agreed that the earnest money amounting to NIL deposited by the Contractor in the form of Demand Draft along with the tender shall be forfeited in full in case the Contractor doesnot remit the Initial Security Deposit within the stipulated period of the start of the works by the stipulated date mentioned in the award letter.
11. Whereas Shri _____ is the accredited representative(s) of the Contractor who would be responsible for taking instructions from the Employer in relation to the Works. The Contractor agrees to pay Sales Tax or any other Tax on material or finished works like Works Contract Tax, Turnover Tax etc. including Income Tax in respect of this Contract of the Works and the Employer will not entertain any claim whatsoever in this report nor the Employer shall be responsible to pay any Tax as mentioned above. If due to non – payment of any of the aforesaid Tax or other Taxes connected with the Works, the Contractor suffers any loss or damages occurred to the Contractor and the Employer will be entitled to claim damages from the contractor for non completion of the Work within **12 calendar months** stipulated in Para 9, above.
12. Whereas the Contractor hereby declares the list of all the relative working with the Employer which is annexed herewith.

OR

Whereas the Contractor declares that none of his relative is working with the Employer.

OR

Whereas the Contractor declares that he has associated himself with the agencies of the appropriate classes of person for Sanitary and Water Supply Installation etc. or any other specialized job to complete the works.

- 13.** The Plans, Drawings, Specifications, Contract Documents and the Documents above mentioned shall form basis of this Contract and the decision of **Regional Manager, Regional Business Office, Region-1, 1, New Cantt.**

Road,Dehradun-248001.for the time being as mentioned in the Conditions of Contract in reference to all matters of dispute as to material, workmanship or account and as to the intended interpretation of the clauses of the Agreement or any of the document attached hereto shall be final and binding on both parties and may be made rule of the court.

14. The work comprises of the **"Air Conditioning Works for State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN,UTTRAKHAND."** as mentioned above and all subsidiary and other works connected therewith on the same site as may be ordered to be done from time to time by **Regional Manager, Regional Business Office,Region-1, 1, New Cantt. Road,Dehradun-248001.** for the time being even though such works may not have been shown on the , Plans or described in the said Specifications or Schedule of Quantities of various classes of Work to be done.
15. The Employer through the **Regional Manager, Regional Business Office,Region-1, 1, New Cantt. Road,Dehradun-248001.** reserves himself the right of altering the Plans, Drawings and nature of Work of adding to or omitting any items of work or having portions of the same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this Contract.
16. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in Delhi and only the courts of Delhi shall have jurisdiction to determine the same.
17. The several parts of this Contract have been read to us and fully understood by us.
In Witness whereof the parties above named have executed these presents today and year first hereinabove written.

Signed, Sealed and Delivered by:

**Authorised Representative
of Employer**

**Authorised Representative
of Contractor**

SCHEDULE I

Air Conditioning Works State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND. all as described in Tender and Drawings inclusive hereto as Specifications.

SCHEDULE II

The following Letters/ Correspondence form a part of Agreement:

- 1.
- 2.
- 3.

As witness our hands the day and year first written above,

In presence of

Signature:

Name:

Occupation:

Address:

Signature by the said Employer

Name:

Designation:

Address:

In presence of

Signature:

Name:

Occupation:

Address:

Signature by the said Contractor

Name:

Designation:

Address:

GENERAL CONDITIONS OF CONTRACT

1.0 Definitions:

"Contract means the documents forming the tender and the acceptance thereof and the formal agreement executed between State Bank of India (client) and the contractor, together with the documents referred therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the architects / Bank and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

1.1 In the contract the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

1.1.1 'SBI' shall mean State Bank of India (client) having its Corporate Centre at State Bank Bhavan, Madame Cama Road, Mumbai-400 021 and includes the client's representatives, successors and assigns.

'Architects/Consultants' shall mean **M/s AAKAAR, D-168, Top Floor, New Rajender Nagar, New Delhi - 60**. 'Site Engineer' shall mean an Engineer appointed by the Bank as their representative to give instructions to the contractors.

1.1.2 'The Contractor' shall mean the individual or firm or company whether incorporated or not, undertaking the works and shall include legal personal representative of such individual or the composing the firm or company and the permitted assignees of such individual or firms of company.

The expression 'works' or 'work' shall mean the permanent or temporary work described in the "Scope of work" and / or to be executed in accordance with the contract and includes materials, apparatus, equipment, temporary supports, fittings and things of all kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the contract.

1.1.3 'Engineer' shall mean the representative of the Architect/Consultant.

1.1.4 'Drawings' shall mean the drawings prepared by the Architects and issued by the Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time. 'Contract Value' shall mean the value of the entire work as stipulated in the letter of acceptance of tender subject to such additions thereto or deductions there from as may be under the deductions there from as may be made under the provision herein after contained.

1.1.5 'Specifications' shall mean the specifications referred to in the tender and any modifications thereof as may time to time be furnished or approved by the architect / consultant "Month" means calendar month.

1.1.6 "Week" means seven consecutive days.

1.1.7 "Day" means a calendar day beginning and ending at 00 Hrs. and 24 Hrs. respectively.

2.0 Total Security Deposit

Total Security Deposit comprise of

Earnest Money Deposit

Initial Security Deposit

Retention Money

a) Earnest Money Deposit:

The tenderer shall furnish EMD as per NIT. No tender shall be considered unless the EMD is so deposited in the required form. No interest shall be paid on this EMD.

The EMD of the unsuccessful tenderer shall be refunded after the decision to award the contract is taken without interest. The EMD shall stand absolutely forfeited if the tenderer revokes his tender at any time the period when he is required to keep his tender open acceptance by the SBI or after it is accepted by the SBI the contractor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the work within the stipulated time.

b) Initial Security Deposit (ISD)

- c) The amount of ISD shall be as per NIT and shall be deposited within 7 days from the date of acceptance of tender.

d) Retention Money:

Besides the ISD as deposited by the contractor in the above said manner the retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. the ISD plus Retention Money shall both together not exceed 5% of the contract value. 50% of the total security deposit shall be refunded to the contractor without any interest on issue of Virtual Completion certificate by the Architect / consultant. The balance 50% of the total security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects in accordance with the conditions of contract including site clearance.

e) Language

The language in which the contract documents shall be drawn shall be in English.

3.0 Errors, Omissions and Discrepancies

In case of errors, omissions and / or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications etc., the following order shall apply.

- i) Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.
- ii) Between the written or shown description or dimensions in the drawings and the correspondence one in the specification the former shall be taken as correct.
- iii) Between written description of the item in the specifications and descriptions in bills of quantities of the same item, the former shall be adopted.
- a) In case of difference between rates written in figures and words, the rate in words shall prevail.
- b) Between the duplicate / subsequent copies of the tender, the original tender shall be taken as correct.

4.0 Scope of Work:

The contractor shall carryout complete and maintain the said work in every respect in strictly accordance with this contract and with the directions of and to the satisfaction of the Bank/ SBI to be communicated through the architect / consultant. The architect / consultant at the directions of the Bank from time to time issue further drawings and / or written instructions, details directions and explanations which are hereafter collectively referred to as Architect's / Consultant's instructions in regard to the variation or modification of the design, quality or quantity of work or the addition or omission or substitution of any work. Any discrepancy in the drawings or between the BOQ and / or specifications. The removal from the site of any material brought thereon by the contractor and any substitution of any other materials therefore the removal and / or re-execution of any work executed by him. The dismissal from the work of any person employed / engaged thereupon.

6.0 i) Letter of Acceptance:

Within the validity period of the tender the Bank shall issue a letter of acceptance either directly or through the architect by registered post or otherwise depositing at the address of the contractor as given in the tender to enter into a Contract for the execution of the work as per the terms of the tender. The letter of acceptance shall constitute a binding contract between the SBI and the contractor.

ii) Contract Agreement:

On receipt of intimation of the acceptance of tender from the SBI / Architect the successful tenderer shall be bound to implement the contract and within **fifteen days** thereof he shall sign an agreement in a non-judicial stamp paper of appropriate value.

6.0 Ownership of Drawings:

All drawings, specifications and copies thereof furnished by the SBI through its architects / consultants are the properties of the SBI. They are not to be used on other work.

7.0 Detailed Drawings and Instructions:

The SBI through its architects / consultants shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of work. All such drawings and instructions shall be consistent with the contract documents, true developments thereof and reasonably inferable there from.

The work shall be executed in conformity therewith and the contractor prepare a detailed programme schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI through the architect / consultant.

8.0 Copies of Agreement

Two copies of agreement duly signed by both the parties with the drawings shall be handed over to the contractors.

9.0 Liquidated Damages:

If the contractor fails to maintain the required progress in terms of clause 30 of GCC or to complete the work and clear the site including vacating their office on or before the contracted or extended date or completion without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the SBI on account of such breach to pay a liquidated damages at the rate of 0.5% of the contract value per week which is subject to a maximum of 5% of the contract value.

10.0 Materials, Appliances and Employees

Unless or otherwise specified the contractor shall provide and pay for all materials, labour, water, power, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work. Unless or otherwise specified all materials shall be new and both workmanship and materials shall be of best quality. The contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Workman whose work or behavior is found to be unsatisfactory by the SBI / Architect/ Consultant he shall be removed from the site immediately.

11.0 Permits, Laws and Regulations:

Permits and licenses required for the execution of the work shall be obtained by the contractor at his own expenses. The contractor shall give notices and comply with regulations, laws, and ordinances rules, applicable to the contract. If the contractor observes any discrepancy between the drawings and specifications, he

shall promptly notify the SBI in writing under intimation of the Architect / Consultant. If the contractor performs any act which is against the law, rules and regulations he shall meet all the costs arising there from and shall indemnify the SBI any legal actions arising there from.

12.0 Setting out Work:

The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the architect/ consultant before proceeding with the work. If at any time any error in this respect shall appear during the progress of the works, irrespective of the fact that the layout had been approved by the architect / consultant the contractor shall be responsible for the same and shall at his own expenses rectify such error, if so, required to satisfaction of the SBI.

13.0 Protection of Works and Property:

The contractor shall continuously maintain adequate protection of all his work from damage and shall protect the SBI's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss, except due to causes beyond his control and due to his fault or negligence.

He shall take adequate care and steps for protection of the adjacent properties. The contractor shall take all precautions for safety and protections of his employees on the works and shall comply with all applicable provisions of Govt. and local bodies safety laws and building codes to prevent accidents, or injuries to persons or property on, about or adjacent to his place of work. The contractor shall take insurance covers as per clause 26.0 at his own cost. The policy may take in joint names of the contractor and the SBI and the original policy may be lodged with the SBI.

14.0 Inspection of Work:

The SBI / Architect / Consultant or their representatives shall at all reasonable times have free access to the work site and/ or to the workshop, factories, or other places where materials are lying or from where they are obtained and the contractor shall give every facility to the SBI/ Architect / consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorised by the SBI/ Architect / Consultant except the representative of Public authorities shall be allowed on the work at any time. The proposed work either during its construction stage or its completion can also be inspected by the Chief Technical Examiner's organisation a wing of Central Vigilance Commission.

15.0 Assignment and Subletting

The whole of work included in the contract shall be executed the contractor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or share thereof or interest therein without the written consent of the SBI through the architect and no undertaking shall relieve the contractor from the responsibility of the contractor from active superintendence of the work during its progress.

16.0 Quality of Materials, Workmanship & Test

All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Architect / Consultant instructions and shall be subject from time to time to such tests as the architect / consultant may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor shall provide such assistance, instruments, machinery, labour, and materials as are normally required or examining measuring sampling and testing any material or part of work before incorporation in the work before incorporation in the work or testing as may be selected and required by the

Architect / Consultant.

ii) **Samples**

All samples of adequate numbers, size, shades and pattern as per specifications shall be supplied by the contractor with out any extra charges. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site detailed literature / test certificate of the same shall be provided to the satisfaction of the Architect / Consultant. Before submitting the sample / literature the contractor shall satisfy himself that the material / equipment for which he is submitting the sample / literature meet with the requirement of tender specification. Only when the samples are approved in writing by the architect / consultant the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by the Architect / Consultant for identification and shall be kept on record at site office until the completion of the work for inspection / comparison at any time. The Architect / Consultant shall take reasonable time to approve the sample. Any delay that might occur in approving the samples for reasons of its not meeting the specifications or other discrepancies inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment etc. shall be to the account of the contractor.

iii) **Cost of Tests**

The cost / expenditure required for the tests shall be borne by the contractor if such test is intended by or provided for in the specification or BOQ.

iv) **Costs of Tests not provided for**

If any test is ordered by the Architect / Consultant which is either

If so intended by or provided for or (in the cases above mentioned) is not so particularized, or though so intended or provided for but ordered by the Architect / Consultant to be carried out by an independent person at any place other than the site or the place of manufacture or fabrication of the materials tested or any Government / approved laboratory, then the cost of such test shall be borne by the contractor.

17.0 Obtaining Information Related to Execution of Work

No claim by the contractor for additional payment shall be entertained which is consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the work nor any misunderstanding or the obtaining incorrect information or the failure to obtain correct information relieve him from any risks or from the entire responsibility for the fulfillment of contract.

18.0 Contractor's Superintendence

The contractor shall give necessary personal superintendence during the execution of the works and as long, thereafter, as the Architect / consultant may consider necessary until the expiry of the defects liability period stated hereto.

19.0 Quantities

- i) The Bill of Quantities (BOQ) unless or otherwise stated shall be deemed to have been prepared in accordance with the Indian Standard Method of Measurements and quantities. The rate quoted shall remain valid for variation of quantity against individual item to any extent subject to maximum variation of the contract value by 25%. The entire amount paid under Clause 20, 21 hereof as well as amounts of prime cost and provisional sums, if any, shall be excluded.

Variation exceeding 25%: The items of work executed in relation to variation exceeding 25% shall be paid on the basis of provisions of clause 22 (e) hereof.

20.0 Works to be measured

The Architect / Consultant may from time to time intimate to the contractor that he required the work to be measured and the contractor shall forthwith attend or send a qualified representative to assist the Architect in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them. Such measurements shall be taken in accordance with the Mode of measurements detailed in the specifications. The representative of the Architect / Consultant shall take joint measurements with the contractor's representative and the measurements shall be entered in the measurement book. The contractor or his authorised representative shall sign all the pages of the measurement book in which the measurements have been recorded in token of his acceptance. All the corrections shall be duly attested by both representatives. No over writings shall be made in the M book should the contractor not attend or neglect or omit to depute his representative to take measurements then the measurements recorded by the representative of the Architect / consultant shall be final. All authorised extra work, omissions and all variations made shall be included in such measurement.

21.0 Variations

No alteration, omission or variation ordered in writing by the Architect / consultant shall vitiate the contract. In case the SBI / Architect / Consultant thinks proper at any time during the progress of works to make any alteration in, or additions to or omissions from the works or any alteration in the kind or quality of the materials to be used therein, the Architect / Consultant shall give notice thereof in writing to the contractor or shall confirm in writing within seven days of giving such oral instructions the contractor shall alter to, add to, or omit from as the case may be in accordance with such notice, but the contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulations, specifications or contract drawings without previous consent in writing of the Architect / Consultant and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Architect / Consultant and the same shall be added to or deducted from the contract value, as the case may be.

22.0 Valuation of Variations

No claim for an extra shall be allowed unless it shall have been executed under the authority of the Architect / Consultant with the concurrence of the SBI as herein mentioned. Any such extra is herein referred to as authorised extra and shall be made in accordance with the following provisions.

- a)
 - i) The net rates or prices in the contract 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 herein.
 - ii) Rates for all items, wherever possible should be derived out of the rates given in the priced BOQ.
- b) The net prices of the original tender shall determine the value of the items omitted, provided if omissions do not vary the conditions under which any remaining items of works are carried out, otherwise the prices for the same shall be valued under sub-clause (c) hereunder.
- c) 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 or works are carried out, then the contractor shall within 7 days of the receipt of the letter of acceptance inform the Architect / consultant of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the Architect / Consultant shall fix such rate or prices as in the circumstances in his opinion reasonable and proper, based on the market, rate.
- d) Where extra work cannot be properly measured or valued the contractor shall be allowed day work prices at the net rates stated in the tender of the BOQ or, if not, so stated then in accordance with the local day work rates and wages for the

district; provided that in either case, vouchers specifying the daily time (and if required by the Architect / Consultant) the workman's name and materials employed be delivered for verifications to the Architect / consultant at or before the end of the week following that in which the work has been executed.

- e) It is further clarified that for all such authorised extra items where rates cannot be derived from the tender, the Contractor shall submit rates duly supported by rate analysis worked on the market rate basis" for material, labour, hire / running charges of equipment and wastage etc. plus 15% towards establishment charges, contractor's overheads and profit. Such items shall not be eligible for escalation.

23.0 Final Measurement

The final measurement, valuation and payment in respect of the contract shall be completed within six months of the virtual completion of the work.

24.0 Virtual Completion Certificate (VCC)

On successful completion of entire works covered by the contract to the full satisfaction of the Architects / SBI, the contractor shall ensure that the following works have been completed to the satisfaction of the Architects / SBI.

- a) Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour, equipment and machinery.
- b) Demolish, dismantle and remove the contractor's site office, temporary works, structures including labour sheds/camps and constructions and other items and things whatsoever brought upon or erected at the site or any land allotted to the contractor by the SBI and not incorporated in the permanent works.
- c) Remove all rubbish, debris etc. from the site and the land allotted to the contractor by the SBI and shall clear, level and dress, compact the site as required by the SBI.
- d) Shall put the SBI in undisputed custody and possession of the site and all land allotted by the SBI.
- e) Shall hand over the work in a peaceful manner to the SBI.
- f) All defects / imperfections have been attended and rectified as pointed out by the SBI to the full satisfaction of SBI.

Upon the satisfactory fulfillment by the contractor as stated above, the contractor shall be entitled to apply to the Architect / consultant is satisfied of the completion of the work. Relative to which the completion certificate has been sought, the Architect / consultant shall within fourteen (14) days of the receipt of the application for virtual completion certificate, issue a VCC in respect of the work for which the VCC has been applied.

This issuance of a VCC shall be without prejudice to the SBI's rights and contractor's liabilities under the contract including the contractor's liability for defects liability period nor shall the issuance of VCC in respect of the works or work at any site be construed as a waiver of any right or claim of the SBI against the contractor in respect of works or work at the site and in respect of which the VCC has been issued.

25.0 Work by other Agencies

The SBI / Architect / Consultant reserves the rights to use premises and any portion of the site for execution of any work not included in the scope of this contract which it may desire to have carried out by other persons simultaneously and the contractor shall not only allow but also extend reasonable facilities for the execution of such work, the contractor, however, shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI. Such work shall be carried out in such manner as not to impede the progress of the works included in the contract.

26.0 Insurance of Works

26.1 Without limiting his obligations and responsibilities under the contract, the contractor shall insure in the joint names of the SBI and the contractor against all loss of damages from whatever cause arising other than the excepted risks, for which he is responsible under the terms of contract and in such a manner that the SBI and contractor are covered for the period stipulated in clause 28 of GCC and are also covered during the period of maintenance for loss or damage arising from a cause, occurring prior to the period of maintenance for loss or damage arising from a cause, occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under clause.

- a) The works for the time being executed to the estimated current Contract value thereof, or such additional sum as may be specified together with the materials for incorporation in the works at their replacement value.
- b) The constructional plant and other things brought on to the site by the contractor to the replacement value of such constructional plant and other things.
- c) Such insurance shall be effected with an insurer and in terms approved by the SBI which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the Architect / consultant the policy if insurance and the receipts for payment of the current premiums.

26.2 Damage to Persons and Property

The contractor shall, except if and so far as the contract provides otherwise indemnify the SBI against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation of damages for or with respect to:

- a) The permanent use or occupation of land by or any part thereof.
- b) The right of SBI to execute the works or any part thereof on, over, under, in or through any lands.
- c) Injuries or damages to persons or properties which are unavoidable result of the execution or maintenance of the works in accordance with the contract.
- d) Injuries or damage to persons or property resulting from any act or neglect of the SBI their agents, employees or other contractors not being employed by the contractor or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the SBI, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

26.3 Contractor to Indemnify SBI

The contractor shall indemnify the SBI against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the matters referred to in the provision sub-clause 26.2 of this clause.

26.4 Contractor's Superintendence

The contractor shall fully indemnify and keep indemnified the SBI against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claim made under or action brought against SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the

contractor shall be at liberty, at his own expenses to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the SBI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Architect / Consultant in this behalf.

26.5 Third Party Insurance

26.5.1 Before commencing the execution of the work the contractor but without limiting his obligations and responsibilities under clause 26.0 of GCC shall insure against his liability for any material or physical damage, loss or injury which may occur to any property including that of SBI, or to any person, including any employee of the SBI, by or arising out of the execution of the works or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to clause 26.0 thereof.

26.5.2 Minimum amount of Third Party Insurance

Such insurance shall be affected with an insurer and in terms approved by the SBI which approval shall not be reasonably withheld and for at least the amount stated below. The contractor shall, whenever required. Produce of the Architect / consultant the policy or policies of insurance cover and receipts for payment of the current premiums.

26.5.3 The minimum insurance cover for physical property, injury, and death is Rs. 5 lacs per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

26.6 Accident or Injury to Workman

The SBI shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

26.6.1 Insurance against Accidents etc. to Workmen

The contractor shall insure against such liability with an insurer approved by the SBI during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the architect / consultant such policy of insurance and receipt for payment of the current premium. Provided always a that, in respect of any persons employed by any sub-contractor the contractor's obligation to insure as aforesaid under this sub-clause shall be satisfied if the sub contractor shall be insured against the liability in respect of such persons in such manner that SBI in indemnified under the policy but the contractor shall require such sub-contractor to produce to the Architect / Consultant when such policy of insurance and the receipt for the payment of the current premium.

26.6.2 Remedy on Contractor's failure to Insure:

If the contractor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the SBI may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the SBI as aforesaid from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

Without prejudice to the others rights of the SBI against contractors. In respect of such default, the employer shall be entitled to deduct from any sums payable to the contractor the amount of any damages costs, charges, and other expenses

paid by the SBI and which are payable by the contractors under this clause. The contractor shall upon settlement by the insurer of any claim made against the insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the monies received from the insurer in respect of such damage shall be paid to the contractor and the contractor shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.

27.0 Commencement of Works:

The date of commencement of the work will be reckoned as the date of handing over site or three days from the date of issue of letter of acceptance of the tender by the SBI which ever is later.

28.0 Time for Completion

Time is essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within a period of **45 Days** from the date of commencement. If required in the contract or as directed by the Architect / Consultant. The contractor shall complete certain portions of work before completion of the entire work. However the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the contract.

29.0 Extension of Time

If, in the opinion of the Architect/consultant, the work be delayed for reasons beyond the control of the contractor, the Architect/consultant may submit a recommendation to the SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond the due date of completion as stipulated in the contract, the contractor shall apply to the SBI through the Architect / Consultant in writing in detail and his justification if any, for the delays. The Architect/Consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of time. While granting extension of time the contractor shall be informed the period-extended time which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the SBI the provision of liquidated damages as stated under clause 10.0 of Instructions to the Tenderers shall become applicable. Further the contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

30.0 Rate of Progress

Whole of the materials, plant and labour to be provided by the contractor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the Architect / Consultant should the rate of progress of the work or any part thereof be at any time be in the opinion of the Architect / consultant too slow to ensure the completion of the whole of the work by the prescribed time or extended time for completion the Architect / Consultant to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the Architect / Consultant neither shall relieve the contractor from fulfilling obligations under the contract nor will he be entitled to raise any claims arising out of such directions.

31.0 Work during Nights and Holidays

Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the Architect / Consultant, save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the contractor shall immediately advise the Architect / consultant. However the provisions of the clause shall not be applicable

in the case of any work which becomes essential to carry by rotary or double shifts in order to achieve the progress and quality of the part of the works being technically required / continued with the prior approval of the Architect / Consultant at no extra cost to the SBI.

All work at night after obtaining approval from competent authorities shall be carried out without unreasonable noise and disturbance.

32.0 No Compensation or Restriction of Work.

If at any time after acceptance of the SBI shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any part of the work to be carried out. The Architect / Consultant shall give notice in writing to that effect to the contractor and the contractor shall act accordingly. In the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work fully but which he did not derive in consequence of the foreclosure of the whole or part of the work.

Provided that the contractor shall be paid the charges on the cartage only of materials actually and bonafide brought to the site of the work by the contractor and rendered surplus

as a result of the abandonment, curtailment of the work or any portion thereof and then taken back by the contractor, provided however that the Architect / consultant shall have in such cases the option of taking over all or any such materials at their purchase price or a local current rate whichever is less.

"In case of such stores having been issued for SBI stores and returned by the contractor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the contractor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of Architect / consultant shall be final.

33.0 Suspension of Work

- i) The contractor shall, on receipt of the order in writing of the Architect / consultant (whose decision shall be final and binding on the contractor) suspend the progress of works or any part thereof for such time and in such manner as Architect / consultant may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of following reasons.
 - a) One account any default on the part of the contractor, or
 - b) for proper execution of the works or part thereof for reasons other than the default of the contractor, or for safety of the works or part thereof.
 - c) The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Architect / consultant.
- ii) If the suspension is ordered for reasons (b) and (c) sub-para (i) above: the contractor shall be entitled to an extension of time equal to the period of every such suspension. No compensation whatsoever shall be paid on this account.

34.0 Action when the whole Security Deposit is forfeited

In any case in which under any clause or clauses of this contract, the Contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit the Architect / consultant shall have the power to adopt any of the following course as they may deem best suited to the interest of the SBI.

- a) To rescind the contract (of which rescission notice in writing to the contractor by the Architect / consultant shall be conclusive evidence) and in which case the security deposit of the contractor shall be forfeited and be absolutely at the

disposal of SBI.

- b) To employ labour paid by the SBI 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 materials (the cost of such labour and materials as worked out by the Architect /Consultant shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same manner and at the same rates as if it had been carried out by the contractor under the terms of this contract the certificate of Architect / Consultant as to the value of work done shall be final and conclusive against the contractor.
- c) To measure up the work of the contractor, and to take such part thereof as shall be unexecuted, out of his hands, to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess the certificates in writing of the Architects / Consultant shall be final and conclusive) shall be borne by original contractor and may be deducted from any money due to him by SBI under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or sufficient part thereof. In the event of any of above courses being adopted by the SBI the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any material 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 to be paid any sum or any work thereto for actually performed under this contract, unless, and until the Architect / consultant 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.

35.0 Owner's Right to Terminate the Contract

If the contractor being an individual or a firm commit any 'Act of Insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Govt. and of the Official Assignee of the liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him to do so, to show to the reasonable satisfaction of the Architect / Consultant that he is able to carry out and fulfil the contract, and to give security therefore if so required by the Architect / consultant.

Or if the contractor (whether an individual firm or incorporated Company) shall suffer execution to be issued or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor.

Or shall assign or sublet this contract without the consent in writing of the SBI through the Architect / consultant or shall charge or encumber this contract or any payment due to which may become due to the contractor thereunder:

- a) Has abandoned the contract; or
- b) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for days after receiving from the SBI through the Architect / Consultant written notice to proceed, or
- c) Has failed to proceed with the works with such diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or has failed to remove the materials from the site or to pull down and replace work within seven days after written notice from the SBI through the Architect/ Consultant that the said materials were condemned and rejected by the Architect/ Consultant under these conditions; or has neglected or failed persistently

to observe and perform all or any the acts, matters or things by this contract to be observed and performed by the contractor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to be deterrent of good workmanship or in defiance of the SBI's or Architect's/ Consultant's instructions to the contrary subject any part of the contract. Then and in any of said cases the SBI and or the Architect / Consultant, may not withstanding any previous waiver, after giving seven days notice in writing to the contractor, determine the contract, but without thereby affecting the powers of the SBI or the Architect / Consultant or the obligation and liabilities of the contractor the whole of which shall continue in force as fully as if the contract had not been so determined and as if the works subsequently had been executed by or on behalf of the contractor. And further the SBI through the Architect / consultant their agents or employees may enter upon and take possession of the work and all plants, tools, scaffoldings, materials, sheds, machineries lying upon the premises or on the adjoining lands or roads use the same by means of their own employees or workmen in carrying on and completing the work or by engaging any other contractors or persons to complete the work 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 employed for completing and finishing or using the materials and plant for the works.

When the works shall be completed or as soon thereafter as convenient the SBI or the architect / consultant shall give a notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within 14 days after receipt thereof by him the SBI sell the same by public auction after due publication, and shall adjust the amount realised by such auction. The contractor shall have no right to question any of the act of the SBI incidental to the sale of the materials etc.

36.0 Certificate of Payment

The contractor shall be entitled under the certificates to be issued by the Architect / Consultant to the contractor within 14 working days from the date of certificate to the payment from SBI from time to time. The SBI shall recover the statutory recoveries towards Income tax, Work contract tax as per the prevailing bye laws and other dues including the retention amount from the certificate of payment.

Provided always that the issue of any certificate by the Architect/ Consultant during the progress of works or completion shall not have effect as certificate of satisfaction or relieve the contractor from his liability under clause.

The Architect/ Consultant shall have power to withhold the certificate if the work or any part thereof is not carried out to their satisfaction.

The Architect/ Consultant may by any certificate make any corrections required in previous certificate.

The SBI shall modify the certificate of payment as issued by the Architect/ Consultant from time to time while making the payment.

The contractor shall submit interim bills only after taking actual measurements and property recorded in the measurement books

The contractor shall not submit interim bills when the approximate value of work done by him is less than **Rs.4 lacs** and the minimum interval between two such bills shall be **30 days**.

The final bill may be submitted by contractor within a period of one month from the date of virtual completion and Architect/ Consultant shall issue the certificate of payment within a period of two months. The SBI shall pay the amount within a period of three months from the date of issue of certificate provided there is no dispute in respect of rates and quantities.

The contractor shall submit the interim bills in the prescribed format with all details.

37.0 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 any 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 those 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.

- ii) 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 **Regional Manager, State Bank Of India,Regional Business Office,Region-1, 1, New Cantt.Road,Dehradun-248001.**and endorse a copy of the same to the Architect, within 30 days from the date of disallowance thereof or the date of deduction 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 the 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 **Regional Manager, State Bank Of India,Regional Business Office,Region-1, 1, New Cantt.Road,Dehradun-248001.** 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 **Regional Manager, State Bank Of India,Regional Business Office,Region-1, 1, New Cantt.Road,Dehradun-248001.**in writing in the manner and within the time aforesaid.
- iii) **Regional Manager, State Bank Of India,Regional Business Office,Region-1, 1, New Cantt.Road,Dehradun-248001.**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 **Regional Manager, State Bank Of India,Regional Business Office,Region-1, 1, New Cantt.Road,Dehradun-248001.**submit his claims to the conciliating authority namely the **Circle Development Officer, SBI, Dehradun** for conciliation along with all details and copies of correspondence exchanged between him and the Regional Manager.
- iv) 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 **Regional Manager of the Bank** for appointment of an arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.
- v) 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 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 **Regional Manager of the Bank**, It will also be the 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 Contract 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 **Regional Manager of the Bank**, 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 **Regional Manager of the Bank**, 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 re-enactment 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.

38.0 Water Supply

The contractor shall make his own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

That the water used by the contractor shall be fit for construction purposes to the satisfaction of the Architect / Consultant.

The contractor shall make alternative arrangements for the supply of water if the arrangement made by the contractor for procurement of water in the opinion of the Architect/ Consultant is unsatisfactory.

The contractor shall construct temporary well / tube well in SBI land for taking water for construction purposes only after obtaining permission in writing from the SBI. The contractor has to make his own arrangement for drawing and distributing the water at his own cost. He has to make necessary arrangements. To avoid any accidents or damages caused due to construction and subsequent maintenance of the wells. He has to obtain necessary approvals from local authorities, if required, at his own cost. He shall restore the ground to its original conditions after wells are dismantled on completion of work or hand over the well to the SBI without any compensation as directed by the SBI/ Architect/ Consultant.

39.0 Power Supply

The contractor shall make his own arrangements for power and supply / distribution system for driving plant or machinery for the work and for lighting purpose at his own cost. The cost of running and maintenance of the plants are to included in his tender prices. He shall pay all fees and charges required for the power supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approval from the appropriate authorities, if required.

40.0 Treasure Trove etc.

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

41.0 Method of Measurement

Unless otherwise mentioned in the schedule of quantities or in mode of

measurement, the measurement will be on the net quantities or work produced in accordance with up to date. Rules laid down by the Bureau of Indian Standards. In the event any dispute / disagreement the decision of the Architect / consultant shall be final and binding on the contractor.

42.0 Maintenance of Registers

The contractor shall maintain the following registers as per the enclosed Performa at site of work and should produce the same for inspection of SBI/ Architect/ Consultant whenever desired by them. The contractor shall also maintain the records / registers as required by the local authorities / Govt. from time to time.

- i) Register for Cement / Paint / Lead / Specific Materials
- ii) Register for Steel
- iii) Register for Secured Advance
- iv) Register for Bulkage of Sand
- v) Register for Silt Test
- vi) Register for Sieve Analysis for Fine Aggregate
- vii) Register for Sieve Analysis for Course Aggregate
- viii) Register for Slump Test.
- ix) Register for Concrete Cube Test.
- x) Register for Hindrance to Work.
- xi) Register for Consumption of Cement
- xii) Register for Running Account Bill
- xiii) Register for Labour

43.0 Force Majeure

- 43.1 Neither contractor nor SBI shall be considered in default in performance of their obligations if such performance is prevented or delayed by event such as but not to war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of god or for any other cause beyond the reasonable control of the party affected or prevented or delayed. However a notice is required to be given within 30 days from the happening of the even with complete details, to the other party to the contract, if it is not possible to serve a notice, within the shortest possible period without delay.
- 43.2 As soon as the cause of force majeure has been removed the party whose ability to perform its obligations has been affected, shall notify the other such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.
- 43.3 From the date of occurrence of a case of force majeure obligations of the party affected shall be suspended during the continuance of any inability so caused. With the cause itself and inability resulting there from having been removed, the agreed time of completion of the respective obligations under this agreement shall stand extended by a period equal to the period of delay occasioned by such events.
- 43.4 Should one or both parties be prevented from fulfilling the contractual obligations by a state of force majeure lasting to a period of 6 months or more the two parties shall each other to decide regarding the future execution of this Agreement.

44.0 Local Laws, Acts, Regulations:

The contractor shall strictly adhere to all prevailing labour laws inclusive of contract labour (regulation and abolition act of 1970) and other safety regulations. the contractor shall comply with the provision of all labour legislation including the latest requirements of all the Acts, laws, any other regulations that are applicable to the execution of the project.

- i) Minimum wages Act 1948 (Amended)
- ii) Payment of wages Act 1936 (Amended)

- iii) Workmen's compensation Act 1923 (Amended)
- iv) Contract labour regulation and abolition act 1970 and central rules 1971 (Amended)
- v) Apprentice act 1961 (Amended)
- vi) Industrial employed (standing order) Act 1946 (Amended)
- vii) Personal injuries (Compensation insurance) act 1963 and any other modifications
- viii) Employees' provided fund and miscellaneous provisions Act 1952 and amendment thereof.
- ix) Shop and establishment act
- x) Any other act or enactment relating thereto and rules framed there under from time to time.

45.0 Accidents

The contractor shall immediately on occurrence of any accident at or about the site or in connection with the execution of the work report such accident to the Architect / consultant. The contractor shall also such report immediately to the competent authority whenever such report is required to be lodged by the law and take appropriate actions thereof.

Signature of Contractor & Seal

SPECIAL CONDITIONS OF CONTRACT

1.0 Scope of Work

The scope of work is to carry out **Air Conditioning Works** at **State Bank of India, SSME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND.**

2.0 Address of Site

The site is located at **State Bank of India, SME BRANCH AT RAJPUR ROAD, DEHRADUN, UTTRAKHAND.**

3.0 Dimension and Levels

All dimensions and levels shown on the drawing shall be verified by the contractor on the site and he will be held responsible for the accuracy and maintenance of the entire dimension and the levels. Figured dimensions are in all cases to be accepted and no dimension shall be scaled. Large-scale details shall take precedence over small – scale drawing. In case of discrepancy the contractor shall ask for clarification from the Architect / Consultant before proceeding with the work.

4.0 Notice of Operation

The contractor shall not carryout any important operation without the consent in writing from the Architect / Consultant.

5.0 Construction Records

The contractor shall keep and provide to the Architect / Consultant full and accurate records of the dimension and positions of all new work and any other information necessary to prepare complete drawings recording details of the work as constructed.

6.0 Safety of adjacent Structures and Trees

The contractor shall provide and erect to the approval of the Architect / Consultant such supports as may be required to protect effectively all structures and protective guards to trees which may be endangered by the execution of the works or otherwise take such permanent measures as may be required by the Architect to protect the trees and structures.

7.0 Temporary Works

Before any temporary works are commenced, the contractor shall submit at least 7 days in advance to the architect / consultant for approval complete drawings of all temporary works he may require for the execution of the works. The contractor shall carry out the modifications relating to strength, if required by the Architect/ Consultant may require in accordance with the conditions of contract at his own cost. The contractor shall be solely responsible for the stability and safety of all temporary works an unfinished works and for the quality of the permanent works resulting from the arrangement eventually adopted for their execution.

8.0 Temporary Roads

The contractor shall provide access roads to the site from the nearest main road at no extra cost and as directed by the Architect/ Consultant. The contractor shall also responsible for proper maintenance of this access road and would take all care to see that existing services, if any, are maintained in working order at his own cost. The laying and maintaining the temporary roads within the site area shall be the contractor's responsibility and the contractor shall take such measures that are necessary and as directed by the Architect/ Consultant.

9.0 Water, Power and Other Facilities

- a) The rate quoted by the contractor shall include all expenses that are required for providing all the water required for the work and the contractor shall make his

own arrangements for the supply of good quality water suitable for the construction and good quality drinking water for their workers. If necessary, the contractor has to sink a tube well / open well and bring water by means of tankers at his own cost for the purpose. The SBI will not be liable to pay any charges in connection with the above.

The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges.

The contractors for other trades directly appointed by the SBI shall be entitled to take power and water connections from the temporary water and power supply obtained by the contractor. However, the concerned contractor shall make their own arrangements to draw the supply and pay directly the actual consumption charges at mutually agreed rates between them. All municipal charges for drainage and water connection for construction purposes shall be borne by the contractor and charges payable for permanent connections, if any, shall be initially paid by the contractor and the SBI will reimburse the amount on production of receipts.

b) The SBI as well as the Architect / Consultant shall give all possible assistance to the contractors to obtain the requisite.

c) Permission from the various authorities, but the responsibility for obtaining the same in time shall be of the contractor.

10.0 Office Accommodation

a) The contractor shall provide and maintain all necessary offices, workshops, stores, shelters, sanitary facilities, canteens and other temporary structures for themselves in connection with the work at the site own cost after getting the approval from the architect / consultant.

b) All temporary buildings and facilities as mentioned above shall be removed on completion of the work or at any other earlier date as directed by the architect / consultant.

All the expenses for obtaining statutory approvals and maintenance of the above facilities as well as running expense shall be borne by the contractor at no extra cost. It is also the responsibility of the contractor to obtain statutory approvals for providing the above facilities.

11.0 Facilities for Contractors' Employees

The contractor shall make his own arrangement for the housing and welfare of his staff and workmen including adequate drinking water facilities. The contractor shall also make his arrangements at his own cost for transport where necessary for his staff and workmen to and from site of work at his own cost.

12.0 Lighting of Works

The contractor shall at all times provide adequate and approved lighting as required for the proper execution and supervision and inspection of works.

13.0 Fire Fighting Arrangements

i) The contractor shall at all times provide suitable arrangements for the fighting at his own cost. For this purpose he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are of be always kept filled with sand and some with water. These equipments shall be provided at suitable prominent and easily accessible places and shall be properly maintained.

ii) Any deficiency in the fire safety or unsafe conditions shall be corrected by the contractor at his own cost and to the approval of the relevant authorities. The contractor shall make the following arrangements at his own cost but not limited to the following :

a) Proper handling, storage and disposal of combustible materials and waste.

- b) Worked operations which can create fire hazards.
- c) Access for the fire fighting equipments.
- d) Types, number and location of containers for the removal of surplus materials and rubbish.
- e) Type size, number and location of fire extinguishers or other fire fighting equipment.
- f) General house keeping.

14.0 Site Order Book.

A site order book shall be maintained at site for the purpose of quick communication between the Architect/ Consultant. Any communication relating to the works may be conveyed through Records in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract. Each site order book shall have machine numbered pages in triplicate and shall carefully maintained and preserved by the contractor and shall be made available to the Architect/ Consultant as and when demanded. Any instruction which the Architect/ Consultant may like to issue to the contractor or the contractor may like to bring the Architect/ Consultant may like to issue to the Contractor or the Contractor may like to bring to the Architect/ Consultant two copies of such instructions shall be taken from the site order book and one copy will be handed over to the party against proper acknowledgment and the second copy will be retained for their record.

15.0 Site Meetings

Site meetings will be held to review the progress and quality evaluation. The contractors shall depute a senior representative along with the site representative staff of approved sub-contractors and suppliers as required to the site meetings and ensure all follow up actions. Any additional review meetings shall be held if required by the Architect/ Consultant.

16.0 Disposal of Refuse

The contractor shall cart away all debris, refuse etc. arising from the work from the site and deposit the same as directed by the Architect/ Consultant at his own cost. It is the responsibility of the contractor to obtain from the locate authorities concerned to the effect that all rubbish arising out of contractor's activities at the construction site or any other off-site activities borrow pits has been properly disposed off.

17.0 Contractor to Verify Site Measurement

The contractor shall check and verify all site measurements whenever requested by other specialists contractors of other sub contractors to enable them to prepare their own shop drawings and pass on the information with sufficient promptness as will not in any way delay the works.

18.0 Displaying the Name of the Work

The contractor shall put up a name board of suitable size as directed by the Architect/ Consultant indicating there in the name of the project and other details as given by the Architect/ Consultant at his own cost remove the same on completion of work.

19.0 Bar Bending Schedule

The contractor shall prepare a detailed bar bending schedule for all reinforced concrete works and got them approved by the Architect/ Consultant well in advance.

20.0 As Built Drawings

- i) For the drawing issued to the contractor by the Architect/Consultant. The Architect / Consultant will issue two sets of drawings to the contractor for the item for which some changes have been made. From the approved drawings as instructed by the

SBI / Architect / Consultant. The Contractor will make the changes made on these copies and return these copies to the Architect/ Consultant for their approval. In case any revision is required or the corrections are not properly marked the Architect/ Consultant will point out the discrepancies to the contractor. The contractor will have to incorporate these corrections and /or attend to discrepancies either on the copies as directed by the Architect/ Consultant and resubmit to him for approval. The Architect / Consultant will return one copy duly approved by him.

- ii) For the drawings prepared by the Contractor, the Contractor will modify the drawing prepared by him wherever the changes are made by the SBI Architect/ Consultant. And submit two copies of such modified drawings to the Architect/ Consultant for approval. The Architect/ Consultant will return one copy of the approved drawing to the Contractor.

21.0 Approved Make

The Contractor shall provide all materials from the list of approved makes at his own cost. The Architect/ Consultant may approve any make / agency within the approved list as given in the tender after inspection of the sample / mock up.

22.0 Procurement of Materials

The Contractor shall make his own arrangements to procure all the required materials for the work. All wastage's and losses in weight shall be to the contractors account.

23.0 Excise Duty, Taxes, Levies etc.

The contractors shall pay and be responsible for payment of all taxes except GST, duties, levies, royalties, fees cess, or charges in respect of the works including but not limited to sales tax, tax on works contract excise duty, and octroi, payable in respect of materials, equipments plant and other things required for the contract. All of the aforesaid taxes except GST, duties, levies, fees and charges shall be to the contractors account and the SBI shall not be required to pay any additional or extra amount on this account. Variation of taxes, duty fees, levies etc if any, till completion of work shall be deemed to be included in the quoted in the quoted rates and no extra amount on this account. Variation of taxes, duties, fees, levies, etc if any till completion of work shall be deemed to be included in the quoted rates and no extra claim on this account will in any case be entertained. If a new tax or duty or levy or cess or royalty or octroi is imposed under as statue or law during the currency of contract the same shall be borne by the contractor.

24.0 Acceptance of Tender

The SBI/ SBIIMS shall have the right to reject any or all tenders without assigning any reason. They are not to bound to accept the lowest or any tender and the tenderer shall have no right to question the acts of the SBI. However, the adequate transparency would be maintained by the SBI.

SPECIAL CONDITIONS FOR AIR-CONDITIONING

It is proposed to supply install, test and commission air-conditioning system Consisting of cooled Ductable Unit, Air cooled Hi Wall Split Unit, and Mechanical Ventilation System as per Schedule of Quantities given in the tender.

1. The Air- conditioning System shall comprise of following.

- a) Air Cooled Ductable, Hi Wall Split.
- b) Fans
- c) Insulated Refrigerant & Drain Piping With Valves & Fittings, etc.
- d) G.S.S. Ducting, Duct Instruments as, Duct Lining, Grill / Diffusers, VCD etc.
- e) Automatic Controls & Instruments as required.
- f) Power & Control Cabling, Earthing etc.
- g) Balancing, Testing & commissioning of the Entire HVAC System Installation.
- h) All other items as detailed in "**Schedule of Quantities**".

2. GENERAL

The special conditions of contract given below shall be read in conjunction with the other documents forming part of the contract. In case of any variance, these conditions shall supersede any other conditions mentioned in any contract document. The materials, design and workmanship shall satisfy the specifications contained herein and codes referred to. Where the technical specifications stipulate the requirement in addition to those contained in the Standard codes and specifications those additional requirements shall also be satisfied. In the absence of any standard/specifications covering any part of the work covered in this tender document, the instructions/directions of engineer-in-charge will be binding on the contractor.

All HVAC installations shall be of high quality, complete and dully operational including all necessary items and accessories whether or not specified here in. All HVAC work shall be completed in accordance with the regulations and standard to the satisfaction of the Engineer-in-charge.

3. SUBMISSION AND OPENING OF TENDERS

The tender shall be submitted in two separate sealed covers duly complete in all respect viz. one for "Technical cum Commercial Bid" & other for "Price Bid". The "Technical & Commercial Bid" & "Price Bid" shall be submitted simultaneously. The name of the work and the words "Technical cum Commercial Bid Only", "Price Bid Only" as the case may be shall be clearly written on the top of the respective sealed covers.

The Technical Bid shall be complete with the following:

- i) The technical bid shall be submitted in duplicate.
- ii) Complete tender documents as purchased from the Department duly signed for acceptance of all terms & conditions.
- iii) Heat load calculations for all areas to be air-conditioned for summer, monsoon & winter seasons.
- iv) Deviation, if any from N.I.T. specifications.
- v) Complete technical particulars as per appendix performa enclosed.
- vi) A set of technical leaflets and selection charts for all the equipments offered.
- vii) Bidder should clearly mention the make of equipments from the approved makes for each equipment they wish to offer and must furnish full technical data for the each make separately.

The price bid in a separate sealed cover shall be in the same format of schedule of work as given in the tender document.

4. VALIDITY

The tender shall be valid for acceptance for a period of **90 Days** from the date of submission of the tender.

5. COMPLETION PERIOD

Completion period of the project shall be **60 Days** from the date of LOI/Work order with advance.

6. TERMS OF PAYMENT

The following terms of payment shall be mutually agreed upon.

For AC Equipments

- a) 40 % of the total AC equipment value on contractors returning the duplicate copy of letter of Intent duly stamped and signed as token of their acceptance.
- b) 50 % of the total AC equipment value on delivery of equipment on pro-rata basis with in one week of receipt of verified bills from the consultant.
- c) 10 % of the total AC equipment value on satisfactory commissioning & handling over of plant against a bank guarantee of corporate indemnity bond of equivalent amount from scheduled bank valid till defect liability period.

For Low side HVAC Work

- a) 10 % of the low side HVAC work value on contractors returning the duplicate copy of letter of Intent duly stamped & signed as token of their acceptance.
- b) 10 % on pro-rata basis against submission & approval of all shop drawings by the consultant/Architect/Client.
- c) 50 % of contract value on delivery of equipment on pro-rata basis with in one week of receipt of verified bills from the consultant.
- d) 20 % of contract value on pro-rata erection of equipment.
- e) 10 % of contract on satisfactory commissioning & handling over of plant against a bank guarantee or corporate indemnity bond of equivalent amount from scheduled bank valid till defect liability period.

7. SHOP DRAWINGS

On the award of the work, the contractor shall immediately proceed with the preparation of detailed working drawings showing the detail of each equipment that are to be installed and the ancillary works that are to be carried out. All the works are deemed to be included in various items of bill of quantities as applicable.

Three sets of all such working drawings dully signed by the head of the planning & design department of the tenderer shall be submitted to the consultant/Engineer-in-charge for approval to ensure that the work will be carried out in accordance with the specifications and drawings, including such changes as may have been mutually agreed upon. All the drawings shall be received by the consultants/Engineer-in-charge for approval with in 04 (Four) weeks from the date of award of work. The approval of the drawings by the consultants/Engineer-in-charge shall in no way relieve the contractor from his obligations to provide a complete and satisfactory plant installation, testing and commissioning as per intent and purpose as laid down in the specifications. It will be the responsibility of the AC contractor to ensure that laid down inside conditions are maintained at all times.

Any omissions and /or errors shall be made good or rectified whether or not the drawings are approved. Contractor shall obtain written approval for samples (like grills/diffusers) and other

materials before placing the order. Contractor shall guarantee the specified inside conditions at specified outside conditions. Prior to the completion of the work, the contractor shall furnish to the employer (2) two sets of a comprehensive manual for m/c, Fans etc. describing all components furnishing a list of spare parts and setting forth in details the instructions for the operation and maintenance of the plant.

The contractor shall also fix in the operating/maintenance room, neatly typed and framed, instructions in details, for the starting and running of the plant.

The following shop drawings shall be prepared by the AC contractor for approval:

- a) AC Equipment layout with sectional drawings of each installed equipment.
- b) Schematic refrigerant piping layout, pipe support details drawing showing the level of pipes.

- c) Fresh air duct layout plans of all floors with sections, support details, position of duct dampers/splitter dampers, insulation etc.
- d) Indoor units layout plans of all floors with sections, support details etc.
- e) Electrical panel, power & control wiring drawings.
- f) Foundation details of all equipments.
- g) Any other shop drawings necessary for the project.

8. AS BUILT DRAWINGS

At the completion of work and before issuance of certificate of virtual completion the contractor shall submit three (03) sets to the Engineer-in-charge, layout drawing drawn at appropriate scale indicating the complete HVAC system "as installed".

9. INSTRUCTION/MAINTAINANCE MANUAL

The contractor shall prepare and produce instruction, operation and maintenance manuals in English for use, operation and the maintenance of the supplied equipment and installations and submit to the Engineer-in-charge in three copied at the time of handing over. The manual shall generally consist of the following:

- a) Description of the project
- b) Opening instructions
- c) Maintenance instructions including procedures for preventive maintenance
- d) Manufacturers catalogues
- e) Spare parts list
- f) Trouble shooting charts
- g) Drawings
- h) Type and routine test certificates of major items
- i) One (1) set of reproducible "as built" drawings

10. PRICES, UNIT RATES & TAXES/DUTIES ETC.

- 10.1 The prices and unit rates quoted by the bidder in the bid shall be firm and deem to be adequate to cover the entire responsibility involved in the execution and completion of work. The rates shall be complete in all respects including cost of materials, erection, fabrication, labour, supervision, tools and plant, transport, contingencies, breakage, wastage, sundries, scaffoldings, insurance & all government levies such as excise, sales tax, WCT, VAT etc.
- 10.2 The contract value shall be inclusive of custom duty, CVD etc on Imported Equipments (Chillers, Imported Fans etc.) & also inclusive of excise duty & inclusive of VAT/local sales tax on indigenous Equipments/Materials and inclusive of octroi duty or any other duties or fees levied by government or any public or local bodies.
Please indicate separately the assessable value & quantum/rate of custom duty, CVD, excise duty, included on each refrigeration equipment separately in your price bid:
- 10.3 The contract value shall remain firm during the currency of the contract and shall be subject to statutory variation in sales tax on works contract or on rate of custom duty/excise duty applicable on refrigeration equipments only. In case assessable values are increase by the manufacturer of refrigeration equipment during the currency of contract, the client shall not pay any increase in quantum of excise duty on account of change in assessable value. No Increase in prices due to change of rate of excise duty on bought out items such as G.S.S./Aluminium Sheet, M.S. Angles/ Flats, Motor, pumps, cables, controls etc., shall be paid. No increase due to change in daily wages of labour be paid, due to any reasons whatsoever.
- 10.4 The total contract price quoted by the bidders shall be inclusive of works contract/turnover tax if applicable & shall be deducted by the client at source & certificate shall be issued for the same. The works contract price quoted shall remain firm till completion of job and handing over the same in working condition to the client.
- 10.5 The price should not be changed subject to exchange rate variations.
- 10.6 The rates quoted shall be deemed to allow for all minor extras and constructional

details, which are not specifically shown on drawings or given in the specifications but are essential in the opinion of the Engineer-in-charge for the execution of works to conform to good workmanship and sound engineering practice.

- 10.7 The Engineer-in-charge decision to clarify any item under minor changes, minor extras and constructional details shall be final, conclusive and binding on the contractor.
- 10.8 The rates quoted by the contractor shall be net so as to include all the requirements described in the contract agreement and no claim whatsoever due to fluctuations in the price of materials and labour will be entertained.
- 10.9 In case the rates of identical items under different sub-heads/parts are different, the lowest of these will be taken for the purpose of making the payments.
- 10.10 The contractor shall provide all equipments, instruments, labour and such other assistance required by the Engineer-in-charge for measurement of the works, material etc.

11. VARIATION IN QUANTITIES & TENDER DRAWINGS:

The quantities for ancillary works given in the schedule and/or in drawings are for the guidance of the tenderer. The contractor shall be paid on the basis of actual quantities of works carried out. However the contractor shall check these quantities before quoting and will bring to the notice of Consultants/Engineer-in-charge for any major deviation. HVAC drawings issued with the tender are diagrammatic only and indicate the general arrangement only. The data given in the drawings and specifications is as exact as could be secured, but its accuracy is not guaranteed. Contractor shall carry out his own computations and provide all such equipment, as required to achieve the specified conditions. The contract shall be on works contract basis and the Client reserves the right to add/delete any items of work during the currency of contract.

The price variation shall be permitted only if the actual quantities differ from the quantities given in the document to an unlimited extent for the following items:

- a) Ducting/duct lining/duct insulation etc.
- b) Drain water piping, chilled water piping, valves etc.
- c) Powder coated aluminum extruded Grills/Diffusers.
- d) Power & control cabling.

12. PERFORMANCE BOUND CONTRACT

The contract will be a performance bound contract and therefore the Bidder shall make their independent check for Heat Load, selection of equipments etc. The drawings enclosed with the tender documents shall be only tentative layout plans and for guidance purpose only. The detailed shop drawings shall be prepared and submitted for approval to the Client/Consultant.

The contractor shall guarantee the specified inside condition at specified outside condition considering the fresh air as detailed in the basis of design of the tender documents.

The contractor shall guarantee that the capacity of various components as well as the whole system shall be within ± 3 % of the specified capacity.

13. GUARANTEE

The contractor shall guarantee the complete AC system for a period of 12 months from the date of handing over the plant after successful initial testing & one major seasonal test i.e. either summer or monsoon to the client. The tenderer shall guarantee the AC system to maintain space conditions as specified in **Basis of Design/Scheme**. They shall also guarantee that the performance of the various equipments individually or jointly shall be with ± 3 % of the specified ratings when working under operating conditions for the complete installation.

14. REPAIRS/ REPLACEMENT OF PARTS DURING GUARANTEE

Any defects or other faults which may appear within defect liability/guarantee period of twelve months from the date of handing over the plant in a satisfactory working conditions to the Client(except for normal wear & tear) arising in the plant from

material or workmanship not in accordance with the contract specification will be rectified by the contractors free of cost & nothing shall be paid extra on any account.

15. TESTING

All testing instruments, velocity meter, digital/electronic electric energy meter, digital thermometer, psychrometer, measuring steel tapes, tools, scaffolding and ladders etc., that may be required for taking measurements shall be arranged by air conditioning contractor at his own cost.

All types of specified & routine tests of the equipments shall be carried out at the works of the contractor or the manufacturers of the components. The client shall be free to witness any or all tests, if they so desired. The contractor has to inform to the client before dispatch of any material/equipment.

On the completion of the installation the contractor shall arrange to carry out various initial tests as detailed below, in the presence of and to the complete satisfaction of the consultants or his representative/Engineer-in-charge, any defect or short coming found during the tests shall be speedily rectified or made good by the contractor at his own expenses. The initial tests shall include, but, not to be limited to the following:

- a) To operate and check proper functioning of all electrically operated components viz. Compressor motor, pumps, fan or air handling units etc. as well as other electrical motors.
- b) To test and check the proper functioning of electrical gears, safety and other controls to ensure their proper functioning.
- c) To check the air distribution system and to provide designed air flow in all areas by adjusting the grills, diffusers and dampers for air-conditioning.
- d) To check & balance/ adjust the refrigerant in the circuit for smooth and noiseless flow.
- e) To check the systems against leaks in different circuits, alignment of motor, "V" belt adjustments, control setting and all such other tests which are essential for smooth functioning of the plant.
- f) Contractor shall have to submit the capacity test of all equipment at site.
- g) On the satisfactory completion of all "Initial" tests the plant shall be considered '**Virtually Complete**' for the purpose of taking over by the client & balance payment shall be released against BG.
- h) In addition to the 'Initial' test the contractor shall also give summer, monsoon & winter tests of the plant, each of (3) three days duration, and each one during the full specified outside conditions (when the ambient conditions are close to the specified ambient conditions). The first running test may be taken on the completion of the initial test, provided the ambient temperature and humidity are near their peak. Inside condition as per the contract, performance of each equipment, Airflow etc. shall be as per the requirement of the contract during these tests.

It is clarified that guarantee period shall start after successful completion of one major test i.e. either summer or monsoon.

16. LIQUIDATED DAMAGES CLAUSE

For all delays attributed to the contractor in completion of job which do not merit extension of time the contractor shall have to pay 0.5 % per week of delay subject to a maximum of 5.0 % of the contract value of work. The liquidated damages shall be recoverable from the payments due to air-conditioning contractor. It may be noted that the deduction of liquidated damages shall not, however absolve the contractor of his responsibility and obligation under the contract to complete the work in totally as required under the contract.

17. OPERATION OF PLANT

The tenderer shall arrange to operate the plant for a period of **ONE MONTH** from the date of commissioning of plant and successful completion of initial test free of cost.

18. TRAINING OF PERSONAL

The contractor shall impart training to the minimum three technical staffs appointed by the department free of cost during erection and commissioning of the plant.

19. INSPECTIONS & TESTING

All the major equipments may be got inspected & tested before dispatch if desired by the client at the manufacturers work.

The AC Contractor shall intimate the department minimum 10 days in advance about the date of readiness of equipment for inspection & testing at a date to be mutually agreed upon by the client & the AC Contractor.

The manufacturer of these equipments must have a facility of testing the equipments at the test bed on full load at their works. All the test readings mutually taken shall be recorded & evaluated with the technical data furnished by the AC Contractor.

20. STORAGE OF MATERIALS/EQUIPMENTS

Plant room if ready can be used for storage of materials/equipment brought to site by the contractors. Watch and ward of the same shall be the contractor's responsibility. In case the plant room space is not readily available; it shall be contractor's responsibility to make his own temporary structure at site with approved location from the department at his own cost.

21. POWER & WATER SUPPLY

Water and electricity at one location shall be arranged by the client at their own cost and risk for execution, testing & commissioning. All necessary power meter & switchgear from the above mentioned particular location shall be arranged by AC contractor at his own for execution, testing & commissioning.

22. CONTRACT AGREEMENT

Contract document for agreement shall be prepared after award of works to the successful bidder. The contract document shall consist of the following:

- a) Original tender document issued to the bidder.
- b) Addendum/ Corrigendum to tender documents issued, if any.
- c) The detailed letter of Acceptance along with statement of agreed variation (if any) and enclosures attached therewith.
- d) Contract agreement on stamp paper of appropriate value.

23. INSURANCE

The contractor shall be responsible for the storage and safe custody of all equipment/ materials brought to site from time to time till the plant is taken over by the department. The contractor may provide adequate and comprehensive insurance coverage for storage and execution.

The contractor shall be responsible for any injury or damage to persons, buildings, structures, property etc., which may arise from any act of omission on part of the contractor or his servants or sub contractors or his employee etc. The contractor shall indemnify and keep indemnified the owner and hold him harmless in all respects of all and any expenditure liability, loss, claims or preceding arising from any such injury or damage to persons or property as aforesaid.

The Contractor may undertake all risk policy including earthquake risk with an insurance company approved by the owner in the joint names of owner and contractor at his own expense.

24. ARBITRATION

Any dispute or difference arising out of, from or relating to anything contained in the resulting document, shall be referred to the sole arbitration of Head. The award made by the sole arbitrator shall be binding on the parties hereto. Such Arbitration shall be governed by the provisions of the Arbitration Conciliation Act, 1996 or any statutory modification or re-enactment thereof of the being in force. The venue of the arbitration shall be Delhi.

25. FORCE MAJEURE

In the event that contractor/vendor or any of its subcontractors or the purchaser is

delayed in performing any of their respective obligations under the contract, and such delay is caused by Force majeure, including but not limited to war, civil insurrection, fires, floods, epidemics, earthquakes, quarantine restrictions and freight embargoes, such delay may be excused as provided in Article 12 and the period of such delay may be added to the time of performance of the obligation delayed.

If a force majeure situation arises, the contractor/vendor shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, The Contractor/vendor shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event of such.

26. LABOUR LAWS AND SAFTY REGULATIONS

The contractor will be required to make good for any damage caused during the awarded work. Any injury/casualty to any skilled/ unskilled worker during the work execution will be the entire responsibility of the Supplier/ Vendor and your labour should be duly insured.

Contractor will be responsible for the compliance of the provisions of the various labour laws (status) applicable to workmen deployed by the contractor party in relation with the subject services. Following rules/regulations may be concerned in particular.

- a) Employees Provident Fund and Miscellaneous Provisions Act, 1952.
- b) Employees State Insurance Act, 1948.
- c) Payment of Wages Act, 1936.
- d) Minimum Wages Act, 1948.
- e) Equal Remuneration Act, 1965.
- f) Contractor Labour(Regulation and Abolition Act), 1970.
- g) Payment of Bonus Act, 1965.
- h) The Workmen's Compensation Act, 1923.

TECHNICAL SPECIFICATION**1.0 SYSTEM DESCRIPTION****INDOOR UNIT**

This section deals with supply, installation, testing, commissioning of various type of indoor units conforming to general specification and suitable for the duty selected. The type, capacity and size of indoor units shall be as specified in detailed Bill of Quantities as specified in BOQ. These units shall have electronic control valve to control refrigerant flow rate respond to load variations of the room.

a) The address of the indoor unit shall be set automatically in case of individual and group control

b) In case of centralized control, it shall be set by liquid crystal remote controller

The fan shall be dual suction, aerodynamically designed turbo, multi blade type, statically & dynamically balanced to ensure low noise and vibration free operation of the system. The fan shall be direct driven type, mounted directly on motor shaft having supported from housing.

The cooling coil shall be made out of seamless copper tubes and have continuous aluminum fins. The tubes shall be staggered in the direction of airflow. Each coil shall be factory tested at 21kg/sqm air pressure under water.

Unit shall have cleanable type filter fixed to an integrally moulded plastic frame. The filter shall be slide away type and neatly inserted.

Each indoor unit shall have computerized PID control for maintaining design room temperature. Each unit shall be provided with microprocessor thermostat for cooling and heating.

Each unit shall be with wired LCD type remote controller. The controller shall have self-diagnostic features for easy and quick maintenance and service. The controller shall be able to change fan speed and angle of swing flat individually as per requirement.

1.1 CEILING MOUNTED CASSETTE TYPE UNIT

The unit shall be ceiling mounted type with eight directional flows. The unit shall include pre-filter, fan section and DX-coil section. The housing of the unit shall be powder coated Galvanized steel. Each unit shall have high lift drain pump, fresh air intake provision (if specified) Low gas detection system and very low operating sound.

1.2 CEILING MOUNTED DUCTABLE TYPE UNIT

Unit shall be suitable for ceiling mounting type. The unit shall include pre filter, fan section & DX coil section .The housing of unit shall be light weight powder coated galvanized steel. The unit shall have high static pressure fan for Ductable arrangement. The unit has inbuilt drain pump.

1.3 HIGH WALL MOUNTED UNITS

The units shall be wall-mounted type. The unit includes pre filter, fan section & DX coil section. The housing of unit shall be light weight powder coated galvanized steel.

Unit shall have an attractive external casing for supply and return air.

2.0 CABLING BETWEEN INDOOR AND OUTDOOR UNITS

The cable between indoor and outdoor units shall run in PVC conduit.

3.0 REFRIGERANT PIPEWORK:

3.1 Scope of Refrigerant Piping work shall include Supply, installation, testing and commissioning of all interconnecting pipe-work between the condensing unit & indoor units. Refrigerant quality seamless copper tubes with brazed connections and the

appropriate Distribution joints and headers shall be used. The piping should be routed at site in such a manner, that brazed joints in the Refrigeration Piping are kept to a minimum.

3.2 The OD & wall thickness of copper refrigerant piping shall be as follows:

	Thickness	Specification
6.4mm (1/4 in)		C1220T-O (ANNEALED)
9.5mm (3/8 in)		C1220T-O (ANNEALED)
12.7mm (1/2 in)		C1220T-O (ANNEALED)
15.9mm (5/8 in)		C1220T-O (ANNEALED)
19.1mm (3/4 in)		C1220T-1/2 H (HALF-HARD)
22.2mm (7/8 in)		C1220T-1/2 H (HALF-HARD)
28.6mm (1 1/8 in)		C1220T-1/2 H (HALF-HARD)
34.9mm (1 1/4 in)		C1220T-1/2 H (HALF-HARD)

3.3 Pressure Testing:

After complete installation of refrigerant piping, it shall be pre-pressure tested and repaired if necessary and further pressure tested to 3,800 Pa, to hold for a minimum 24 hours with dry nitrogen prior to insulating the joints. After satisfactory testing, the refrigerant pipe shall be evacuated and dehydrated to (- 755 MM HG) and held for one to four hours depending on the pipe length.

3.4 Refrigerant Charge

Refrigerant charge must be calculated based on the actual length of the refrigerant pipe work. The refrigerant charging process must be carried out with an appropriate charging station and under supervision of Consultancy.

3.5 Piping Insulation

All suction & liquid lines of the Refrigerant pipe work shall be insulated with cross linked closed cell Oxide Acetate Foam pipe sections as specified to avoid condensation. The exposed piping insulation shall be painted with U/V paint

3.6 Fixing Pipe Work & Electrical Conduit:

The insulated refrigerant piping and electrical conduit shall run on GI tray properly supported by GI rods. The exposed tray on terrace shall be covered by open able GI covers.

4.0 DRAIN PIPING

4.1The indoor units shall have uPVC drain pipe suitable for 10 kg/cm² pressure rating.

4.2The pipes shall be laid in proper slope for efficient drainage of condensate water.

4.3 Drain Pipe Insulation

Drain pipes carrying condensate water shall be insulated with 6 mm cross linked closed cell Oxide Acetate Foam insulated as specified in boq to avoid any leakage condensation.

The joints shall be properly sealed with synthetic glue to ensure proper bonding of the ends.

5.0 TESTING OF AIR-CONDITIONING SYSTEM

5.1 Routine and types tests for the various items of equipment shall be performed at the contractor's works and test certificates furnished. Functional tests shall be conducted at site.

5.2 The performance tests to determine whether or not the full intent of the specification is meant shall be conducted by the contractor. After notification to the employers that the installation has been completed and the plant has run continuously for a period of at least one weeks, the contractor shall conduct under the direction of the consultants and in the presence of the employer's representatives tests such tests as specified to establish the capacity of various equipment supplied and installed by the contractor.

5.3 The contractor shall operate, test and adjust the air conditioning appliances including adjustment of regulators, dampers, etc.,.

5.4 All test equipment, labour, operating personnel, required for these tests shall be furnished by the contractor to enable the plant to be put in continuous running test for a period of two days after all other tests and adjustments have been made.

The performance tests shall be conducted during peak summer and peak monsoon.

5.5 PROCEDURE

5.5.1 Design Conditions:

The inside and outside conditions will be recorded for 3 days duration on hourly basis. The outside and inside dry bulb and wet bulb temperatures shall be recorded by means of a sling psycho meter with mercury thermometers. The relative humidity shall be computed from the psychometric chart. The inside dry bulb temperature and relative humidity shall fall within the specified limits.

5.6 FUNCTIONAL TESTS

5.6.1 Electrical Equipment:

a) All the cables shall be tested for continuity and absence of cross phasing. Insulation resistance between the phase conductors and the earth shall be measured shall with the help of a 500-V megger.

b) Motors:

- i) Starter operation shall be checked for single phasing.
- ii) Overload protection shall be checked by altering the starter thermal overload setting.

6.0. HEAT RECOVERY UNITS

a.SCOPE

The scope of this section comprises of the supply of double-skin "Heat recovery Units is conform to the following specifications.

TYPE

The Heat recovery units shall be two stream units in double skin construction thermal break, comprising of fresh air section, exhaust air section and Heat Recovery Section. The supply air section shall include Inspection Section.

b.CAPACITY

The Heat recovery units shall be of such capacities and static pressures as mentioned in the Bill of Quantities.

c.CASING

- The housing/ casing of the heat recovery unit shall be of double skin construction. The main framework shall be of suitable structural sections. Framework of all heat recovery units shall be made of thermal break hollow extruded aluminium profile.

- Double skin panels shall be minimum 25mm thick made of 0.6mm (Both inner and outer Sheets) with polyurethane foam insulation of density not less than 38 kg/cum injected in between. These panels shall be joined and connected to the framework/ supports with soft rubber gasket in between (if necessary) to make the joints airtight and low air leakage potential. The gaskets shall be inserted within groove in extruded aluminium profile of the framework. For units installed outdoor, the thickness of double skin panels shall be minimum 40 mm.

- Suitable doors with nylon handles and all access panels should be suitable locking arrangement. Aluminium die-cast powder coated/ Nylon hinges & latches shall be provided for access to various panels for maintenance. The entire housing shall be mounted on galvanized steel channel frame work.

Other panels will be screwed on to the frame with sealant and soft rubber gasket thus making the joints air tight. All screws used for panel fixing shall be covered with PVC caps.

d.FRESH AIR SECTION

The supply air section shall comprise of the following:-

i.FAN SECTION

The fan shall be centrifugal forward curved or backward curved, double inlet double width type. The impeller and the fan casing shall be made of galvanized sheet steel. The impeller shall be mounted on a solid shaft supported to housing with angle iron frame and pillow block heavy duty ball bearing. The impeller shall be statically and dynamically balanced.

ii.MOTOR AND DRIVE

Fan motor shall be energy efficient with efficiency level of IE-3 or EFF1 whichever is more efficient and suitable for 415±10% volts, 50 cycles, 3 phase squirrel cage, totally enclosed fan cooled with IP – 55 protections. Drive shall be provided through belt – drive arrangement. Belts will be of oil resistant type.

iii.FILTER SECTION (Pre Filter (in supply only))

Intake Filters: Cleanable metallic viscous type filter made out of aluminum wire mesh or of dry cleanable synthetic type of minimum 50mm thickness, These filters shall have the efficiency of 90% down to 10 micron particle size. Face velocity across these filters shall not exceed 155 MPM.

iv.DRAIN PAN

Drain pan shall be made out of minimum 1.25 mm stainless steel sheet externally insulated with 6-9 mm thick closed cell Oxide Acetate foam / equivalent suitable insulation with necessary dual slope to facilitate fast removal of condensate.

v.INSPECTION SECTION

The Inspection section shall be for inspection of other functional sections. It shall be available in two options; long and short version and shall be selected as defined in the Bill of Quantities.

e.EXHAUST AIR SECTION

i.FAN SECTION

The fan shall be centrifugal forward curved or backward curved, double inlet double width type. The impeller and the fan casing shall be made of galvanized sheet steel. The impeller shall be mounted on a solid shaft supported to housing with angle iron frame and pillow block heavy duty ball bearing. The impeller shall be statically and dynamically balanced. Fan housing and motor shall be mounted on a common galvanized steel or aluminium block base which can be drawn out from side for ease of maintenance.

ii.MOTOR AND DRIVE

Fan motor shall be energy efficient with efficiency level of IE-3 or EFF1 whichever is more efficient and suitable for 415+10% volts, 50 cycles, 3 phase squirrel cage, totally enclosed fan cooled with minimum of IP – 24 protections. Drive shall be provided through belt – drive arrangement. Belts will be of oil resistant type.

f.HEAT RECOVERY SECTION

The Heat Recovery section shall include enthalpy Plate and shall have minimum recovery of 75 % of total heat, i.e both sensible and latent(each being 75 %). The recovery of sensible and latent shall be equal. Necessary computerized selection of the plate should be provided along with the bid to justify the same.

g.HEAT RECOVERY UNIT SPECIFICATIONS:

- a) quick and efficient uptake of thermal energy.
- b) sufficient mass for optimum heat transfer
- c) maximum sensible heat recovery at a relatively low rotational speed of 20 to 25 rpm.

Non metallic substrates made from paper, plastic, synthetic or glass fibre media, will therefore, not be acceptable.

The support shall not be made from any material which is combustible or supports combustion like synthetic fibrous media.

The plate has to be certified as per DIN EN ISO 846 with 0% fungal and bacterial growth at 95% Relative humidity and above.

The plate should be AHRI & UL certified

Pressure drop:

The pressure drop across the rotary heat exchanger shall not exceed 0.1 inch for every 100 FPM face velocity, or part thereof, for the minimum stated/ required latent recoveries / efficiencies.

INSULATION**1.0 SCOPE**

The scope of this section comprises the supply, Fixing and application of insulation conforming to these specifications.

1.2 DUCT INSULATION**MATERIAL**

- The duct insulation shall be Oxide Acetate foam. Basic material shall be cross linked closed cell Oxide Acetate Foam .Insulation should be of minimum thickness as mention in the BOQ.
- The duct insulation shall be with Factory pre-laminated Aluminium foil with mechanical protection where the men approach to damages the Oxide Acetate foam surface. Insulation should be of minimum thickness as mention in the BOQ.
- Density of Material shall be between 30 to 33 Kg/m3.
- Thermal conductivity of Oxide Acetate foam shall not exceed 0.029 W/m.K at mean temperature of 40°C
- Insulation material shall be UV resistive, anti microbial and anti fungal with zero rating fungal growth as per ASTM -G -21
- Insulation material should not have any effect of acids and alkalis as per IS:9845-1998
- The insulation shall have fire performance such that it passes Class 1 as per BS476 Part 7 for surface spread of flame as per BS 476 and also pass Fire Propagation requirement as per BS476 Part 6 to meet the Class 'O'.
- Water vapour permeability shall be negligible as per DIN EN ISO : 12572 , i.e. Moisture Diffusion Resistance Factor or 'μ' value should be minimum 12800.

External thermal insulation shall be provided as follow:

The thickness of Oxide Acetate foam shall be as shown in the schedule of quantity.

Following installation procedure should be adopted:

- ◆Duct surfaces shall be cleaned to remove all grease, oil, dirt, etc. prior to carrying out insulation work.
- ◆One coat Adhesive must be allowed to tack on the surface of the ducts to dry and then press surface firmly together starting from one end and working towards centre.
- ◆Measurement of surface dimensions shall be taken properly to cut Oxide Acetate Foam sheets to size with sufficient allowance in dimension.
- ◆Material shall be fitted under compression and no stretching of material should be allowed.
- ◆A thin film of adhesive shall be applied on the back of the insulating material sheet and then on to the metal surface.
- ◆When adhesive is tack dry, insulating material sheet shall be placed in position and pressed firmly to achieve a good bond.
- ◆All longitudinal and transverse joints shall be sealed as per manufacturer recommendations.
- ◆The adhesive shall be strictly as recommended by the manufacturer.
- ◆The detailed Application specifications are as per the manufacturer's recommendation.

1.3 PIPING INSULATION

MATERIAL

- The pipe insulation shall be Oxide Acetate foam. Basic material shall be cross linked closed cell Oxide Acetate Foam . Insulation should be of minimum thickness as mention in the BOQ.
- The Pipe insulation shall be with Factory pre-laminated Aluminium foil with mechanical protection where the men approach to damages the Oxide Acetate foam surface. Insulation should be of minimum thickness as mention in the BOQ.
- Density of Material shall be between 30 to 33 Kg/m3.
- Thermal conductivity of Oxide Acetate foam shall not exceed 0.029 W/m.K at mean temperature of are for average chilled water.
- Insulation material shall be UV resistive, anti microbial and anti fungal with zero rating fungal growth as per ASTM -G -21
- Insulation material should not have any effect of acids and alkalis as per IS:9845-1998
- The insulation shall have fire performance such that it passes Class 1 as per BS476 Part 7 for surface spread of flame as per BS 476 and also pass Fire Propagation requirement as per BS476 Part 6 to meet the Class 'O'.
- Water vapour permeability shall be negligible as per DIN EN ISO : 12572 , i.e. Moisture Diffusion Resistance Factor or 'μ' value should be minimum 12800.

All chilled water, refrigerant and condensate drain pipe shall be insulated in the manner specified in the BOQ. An air gap of 100 mm shall be present between adjacent insulated surfaces carrying chilled water or refrigerant and also between the insulated surface and the wall to allow natural ventilation without affecting its external surface coefficient of heat transfer. Before applying insulation, all pipes shall be brushed and cleaned. All Pipe surfaces shall be free from dirt, dust, mortar, grease, oil, etc. Oxide Acetate foam insulation shall be applied as follows:

- Insulating material in tube form shall be sleeved on the pipes.
- On existing piping, slit opened tube of the insulating material (slit with a very sharp knife in a straight line) shall be placed over the pipe and adhesive shall be applied as suggested by the manufacturer.
- Adhesive must be allowed to tack dry and then press surface firmly together starting from butt ends and working towards centre.
- Wherever flat sheets shall be used it shall be cut out in correct dimension. All longitudinal and transverse joints shall be sealed as per manufacturer recommendations.
- The insulation shall be continuous over the entire run of piping, fittings and valves.
- All valves, fittings, joints, strainers, etc. in chilled water piping shall be insulated to the same thickness as specified for the main run of piping and application shall be same as above. Valves bonnet, yokes and spindles shall be insulated in such a manner as not to cause damage to insulation when the valve is used or serviced.
- The manufacturer's trained installer should only be used for installation.
- The pipes insulation shall be of Oxide Acetate foam with factory laminated aluminium foil substrate mechanical protection where the men approach to damages the foam surface. insulation should be of minimum thickness as mention in the BOQ separately
- The exposed pipes shall be factory laminated Oxide Acetate foam. The exposed. Pre-formed insulation should be of minimum thickness as mention in the BOQ separately.

RECOMMENDED ADHESIVE:

In all cases, the manufacturer's recommended Adhesive should be used for the specified purpose.

Installation:

1.4 Chilled Water and Drain Piping:

- The pipe shall be thoroughly cleaned with a wire brush and rendered free from all rust and grease.
- The pipes shall be treated with coats of adhesive properly.
- The insulation preformed section shall be fixed tightly to the surface taking care to seal all joints with 50mm wide aluminum adhesive tape (transverse and circumferential).
- The insulation shall be tied with PVC band not less than 6mm width and 25 Gauge 4 bends per meter or equivalent plastic band using G.I. sheet clamp crimped at the joints.

1.5 Material & Process of Thermal Insulation of Condensate & Refrigerant Pipe

Material

- Insulation material shall be Closed Cell Elastomeric Nitrile Rubber.
- Density of material shall be between 60 +/-10 % Kg/m³.
- Thermal conductivity of elastomeric nitrile rubber shall not exceed 0.035 W/m²K at an average temperature of 0°C.
- The insulation shall have fire performance such that it passes class 1 as per BS476 Part 7 for surface spread of flame as per BS 476 and also pass Fire Propagation requirement as per BS 476 Part 6 to meet the Class 'O' Fire category as per 1991 Building Regulations (England & Wales) and the Building Standards (Scotland) Regulations 1990.
- Water vapour permeability shall not exceed 0.017 Perm inch (2.48×10^{-14} Kg/m.s.Pa), i.e. Moisture Diffusion Resistance Factor or 'μ' value should be minimum 7000.

Thickness of the insulation shall be as specified for the individual application.

Recommended Adhesive

In all cases, the manufacturer's recommended Adhesive (SR-998) should be used for the specified purpose.

Installation Exposed Directly to Sunlight

For installations exposed to sunlight, after giving 36 hours curing time for the adhesive apply manufacturer's recommended UV/Mechanical Protection. Please refer the separate detailed guidelines on UV/Mechanical Protection. FRP coating should be provided for protection from sun light.

Parameter for Selection of Thickness

- a) Design Basis: Condensation Control
- b) Region: Non Coastal Area
- c) Application: Outdoor & Indoor
- d) Design conditions: 30 Deg. C & 82% RH.

Thickness of Insulation

- a) Drain water Pipe Line Temperature 15.0 Deg. C
Up to 50 mm Pipe size - 13 mm thick insulation
- b) Refrigerant Pipe Line Temperature 3.0 Deg. C
Up to 50 mm Pipe size - 25mm thick insulation
Above 50 mm Pipe size & Up to 100 mm Pipe size-32mm thick insulation

Mechanical Protection for Piping (with adhesive and Glass Cloth/CSM)

It's a two component composite system of woven glass cloth and manufacturer approved adhesive.

Procedure:

1. Apply adhesive liberally on Insulation.
2. Immediately spread the 7 mil woven glass cloth on insulation without allowing adhesive to dry.
3. Immediately apply another coat of adhesive liberally on woven glass cloth.
4. Even out with brush and allow it to dry for 2-3 hours.

Note: a) Mechanical Protection should be applied after 36 hours of Curing of adhesive.

It is the minimum time required for complete curing of adhesive.

b) For UV protection apply two coats of special UV resistant paint after the above process

DESIGN PARAMETRES**I) BASIS OF DESIGN**

1.Site Location SBI SME Branch at RAJPUR ROAD, DEHRADUN, UTTARAKHAND.

2. Introduction

A HVAC System shall be designed, installed & commissioned to provide thermally controlled environment for the proposed facility.

3. Outside Design Conditions	DBT °C	WBT °C
Summer/Monsoon/Winter	44.4/35.0/7.2	23.9/28.3/5.0
Inside Design Conditions	DBT °C	RH %
Summer/Monsoon/Winter	23.89 +/-1.0	40% to 60%
Winter	No provision of winter heating	

4. Filtration: Pre filters of efficiency 90% down to 10 micron particle size shall be installed in all the indoor units at the intake for AC application.

5. Exposed Roof: All exposed roof/terraces shall be insulated with 50mm thick expanded polystyrene of density 20 Kg/CMT or equivalent material by AC contractor (If quantified in BOQ otherwise by other agencies) to get an overall heat transmission factor of 0.12 BTU/HR/SFT/°F.

6. Power Supply: Stabilized three phase four wire AC supply i.e. 415 Volts $\pm 10\%$ & 50 Hz $\pm 5\%$ with double earthing shall be made available near each Isolators of Ductable unit & Single phase power supply with earthing near Isolators/MCB of Hi Wall Unit Fan etc.

II) DESIGN PARAMETERS**A) Ducting Work**

a) Method of Duct Design	:	Equal Friction method
b) Maximum air velocity in supply duct MPM	:	500.00
c) Maximum air velocity in return duct MPM	:	450.00
d) Friction loss in duct(maxm.)MM Wg in 100 mt run.:	:	8.33
e) Maximum velocity at supply air grill outlet MPM	:	150.00

III) NOISE & VIBRATION CONTROL

The air conditioning contractor must take all necessary precautions to have minimum noise generation and its transmission. Minimum vibration as permitted by IS relevant code shall be ensured.

MODE OF MEASUREMENT

The following measurement code shall apply to the Contract:

A.1 Sheet Metal Work

1. Ducting

- a) The final finished sheet area in sq.mt. shall be measured only.
- b) Vanes, splitters, flanges, access doors etc. shall not be separately measured. These shall be treated as part of duct work.
- c) Bends, Elbows, Transformation, pieces etc. shall be measured along the centre line and measured as per duct work.
- d) Canvas connections, Duct Supports, Stiffening members, Frames etc. shall not be measured separately and shall form part of duct work.

2. Grills/Diffusers/ Fire Dampers

All Grills/ Diffusers/Fire Damper areas will be measured in terms of effective area (Neck Area). Any extruded aluminum grill/diffusers having an area less than 0.1 sq.mt shall be accounted as 0.1 sq.mt.

3. Box Dampers

- a) No separate measurement of box dampers shall be done since they form part of duct. If quantified in BOQ then shall be measured separately.
- b) Fresh air dampers shall be measured as effective areas only. No separate measurements for bird screen inlet/outlet louvers shall be done.

A.2 Insulation

Insulation of Duct

- 1. This shall be measured on the basis of bare duct surface area i.e. the area of duct insulation & area of duct shall be same.

Acoustic Lining of Duct & Plenum

This shall be measured on the basis of bare duct surface area i.e. the area of duct lining & area of duct shall be same.

A.3 Electrical Cabling work

- a) All power cables/ Controls cables shall be measured on linear basis in meters.
- b) No extra price shall be paid on account of end termination of cables which includes thimble, gland etc.

A.4 Structural Supports

No extra price shall be paid on account of structural supports required for piping, Ducting & cabling work.

SAFETY CODE

1. First aid appliances including adequate supply of sterilised dressing and cotton wool shall be kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm (Clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used an extra mazdoor shall be engaged for holding ladder.
5. Every opening in the floor of a building or in a working platform be provided with suitable means to prevent to fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one meter.
6. No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.
7. Workers employed on mixing and handling material such as asphalt, cement mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand-gloves.
8. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
9. I) No paint containing leads or lead products shall be used except in the form of paste or readymade paint.
ii) The workers should supply suitable facemasks for use when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
10. Overalls shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the periods of cessation of work.
11. Hoisting machines and tackle used in the works, including their attachments, anchorage and supports shall be in perfect condition.
12. The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

PROFORMA FOR RUNNING ACCOUNT BILLS**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 _____ were made have been taken jointly on _____ and are recorded at pages _____ of Measurement Book No. _____.

Date & Signature of
Contractor.

Date & Signature of
Architect's Representative
(Seal).

Date & Signature
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

RUNNING A/C BILL

Name of Contractor/Agency: _____

Name of Work: _____

Sr. No. of this Bill: _____

No. and Date of Previous Bill. _____

Reference to Agreement No. _____

Date of Written Order to Commence. _____

Date of Completion as per Agreement. _____

Sr. No.	Item description	Unit	Rate (Rs.)	As per Tender		Upto Previous R/A Bill		Upto Date (Gross)		Present Bill		Remarks
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	
1.	2.	3.	4.	5.		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.

Date & Signature of Contractor.

PERFORMA FOR APPLICATION BY CONTRACTOR FOR EXTENSION OF TIME

1. Name of the Contractor
2. Name of the Work as given in the Agreement
3. Agreement W O
4. Tender Amount
5. Date of Commencement of Work
6. Period allowed for Completion as per Agreement
7. Date of Completion as per Agreement
8. Period for which Extension of Time has been given

Date**MonthYear**

- a) 1st Extension vide Bank's Letter No
- b) 2nd Extension vide Bank's Letter No
- c) 3rd Extension vide Bank's Letter No

9. Reasons for which extensions have been previously given (Copies of the previous applications should be attached)
10. Period for which extension is applied for and the reasons thereof including hindrances, time for extra work assigned, if any etc.

Signature of Contractor & Seal

PERFORMA OF HINDERANCE REGISTER

Name of Work : Date of State of Work :

Name of Contractor : Period of Completion :

Agreement No : Date of Completion :

Sr No	Nature of Hindrance	Date of occurrence of Hindrance	Date of which Hindrance was removed	Period of Hindrance	Signature SE / PE	Remarks
1	2	3	4	5	6	7

SE = Site Engineer**PE = Project Engineer**

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

No.	Item	Quantity	Unit	Amount	Remarks
1	2	3	4	5	6

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 upon.

Dated Signature of
Site Engineer
preparing the Bill

Designation_____

Dated Signature of
Bank's Architects

(Name of the Architects)

Dated signature of Contractor

APPROVED LIST OF AIR CONDITIONING

The following is the list of products and the names of the approved manufacturers against each product. Where more than one manufacturer is listed. The Contractor shall quote rates for the various items of work based on the materials, after ascertaining the availability, delivery schedule etc of the same

In the event the Contractor is permitted to use materials of lower preferences, because of valid reasons, the contract rates for the relevant items of work shall be suitably adjusted on the basis of the variation in prices of materials of first preference and those actually used. If the prices of material used are higher than the prices of materials of first preference, the Owner shall NOT be liable to make any enhanced payment for the affected item of work on this account.

1	AIR CONDITIONING UNIT (Ductable Split Units / WINDOW / SPLIT / HIGH WALL / CEILING MOUNTED)	Toshiba / Mitsubhishi / Hitachi / Daikin/Carrier / Voltas
2	Voltage Stabilizer Insulation Foam Copper Pipes PVC PIPE (20 Kg density)	Logicstat / Micel PARAMOUNT / SUPREME MET / DIAMOND/ OHTC (Imported) POLY PACK / SETIA
3	GI pipes	ITC / Tata / Zenith or equivalent.
4	G.I. Sheet Duct Vibration Isolators Self adhesive sealing gaskets for Ducts	SAIL / TATA / JINDAL Resistoflex Primakool
5	Powder Coated Grills/Diffuser Grill/Diffuser Dampers/Fire Damper	AIR PRODUCTS, OMICRON, AIRFLOW, HINDALCO , CARYAIRE
6	Glass wool Insulation / Fibre glass rolls	U.P. TWIGA , FGR , Kimco , Owens corning
7	Power Cables	FINOLUX,POLYCAB,RALLISON
8	Control Cable CONDUIT for Elect. Wires	FINOLUX,POLYCAB,RALLISON BEC,AKG , SETIA

NOTES: -The approved makes mentioned above or equivalent makes as approved by the Architect / Engineer in Charge shall be used

All materials shall be used only after quality check / inspection / approval by architect.

Above makes of equipment are approved subject to their meeting the specifications. The contractor however shall seek approval of specific make from Architect / Bank before commencing the work. The decision of Architect / Bank shall be final & binding on the contractor in their respect.

BILL OF QUANTITY**PREAMBLE:**

TO BE READ ALONG WITH DRAWINGS.

1. RATES TO BE QUOTED BOTH IN FIGURES AND WORDS.
2. ALL PAGES TO BE SIGNED AND STAMPED BY THE TENDERER.
3. THE RATE OF THE ITEMS SHALL BE APPLICABLE FOR ANY FLOOR LEVEL/ ANY NUMBER OF FLOORS, OR ANY QUANTITY.
4. THE SPECIFICATION OF THE ITEMS SHALL BE AS PER LATEST INDIAN STANDARD CODES UNLESS OTHERWISE SPECIFIED.
5. ALL MATERIALS SHALL BE AS PER APPROVED LIST AND SHOULD BE OF 1st QUALITY UNLESS OTHERWISE SPECIFIED.
6. THE RATES ARE INCLUSIVE OF ALL DUTIES AND TAXES (EXCEPT GST) OF ALL GOVERNMENT, MUNICIPAL OR ANY OTHER STATUTORY BODY APPLICABLE FROM TIME TO TIME.
7. RATES SHALL BE FOR ITEMS COMPLETE IN ALL RESPECTS AS PER DRAWING, INSTRUCTIONS AND APPROVAL OF THE ARCHITECT/ BANK'S ENGINEER.
8. THE QUANTITIES ARE APPROXIMATE AND TENTATIVE WHICH MAY VARY DURING COURSE OF EXECUTION. THE RATES QUOTED AGAINST PARTICULAR ITEM SHALL NOT BE CHANGED WITH VARIATION IN QUANTITIES.
9. MAKING OF ANY CUTOUT / OPENING FOR ELECTRICAL / AIR - CONDITIONING WIRING / FITTING IN ANY OF THE ITEM OF FALSE CEILING, PARTITIONS, PANELING MASONRY WORK ETC. AND FINISHING EDGES JAMBS / CILLS / SOFFITS OF THE OPENING SHALL NOT BE PAID EXTRA.
10. THE TENDERER SHALL VISIT THE SITE AND SHALL SATISFY HIMSELF AS TO CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. HE SHALL ALSO CHECK, ASCERTAIN THE LOCATIONS OF ANY EXISTING STRUCTURES OR EQUIPMENT OR ANY OTHER SITUATION WHICH MAY AFFECT THE WORK. NO EXTRA CLAIM AS A CONSEQUENCE OF IGNORANCE OR ON GROUND OF INSUFFICIENT DESCRIPTION WILL BE ALLOWED AT A LATER DATE.
11. THE QUOTED PRICE FOR ITEMS SHALL INCLUDE ALL ACCESSORIES, CONSUMMABLES ETC. AS REQUIRED TO MAKE THE ITEM COMPLETE IN ALL RESPECTS, COMPATIBLE WITH OTHER RELATED / ASSOCIATED ITEMS AND FULLY FUNCTIONAL.
12. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY ERROR, DIFFICULTY IN EXECUTION / DAMAGES INCURRED OWING TO DISCREPANCY IN DRAWINGS WHICH HAS BEEN OVERLOOKED BY HIM AND HAS NOT BEEN BROUGHT TO THE NOTICE OF THE ARCHITECT.
13. THERE ARE NUMBER OF ITEMS GIVEN IN THE TENDER WHERE IN BASIC RATES INCLUDING ALL TAXES EXPECTED HAS BEEN MENTIONED IN THE TENDER. THESE ITEMS SHALL BE PURCHASED BY THE CONTRACTOR FROM THE MARKET ONLY AFTER THE APPROVAL OF QUALITY AND RATES BY THE ARCHITECT.
14. ALL HIDDEN SURFACES OF BOARD / PLY / WOOD WORK TO BE PAINTED WITH ANTI BACTERIAL PAINT FROM NAV AIR INTERNATIONAL FR 881 (VIPER) (WHITE COLOUR AS PER MANUFACTURER'S SPECIFICATIONS ON WOOD / BOARD).
15. CONTRACTOR SHALL APPOINT TECHNICALLY QUALIFIED FULL TIME SITE SUPERVISOR TO MONITORING THE DAY TO DAY PROGRESS OF WORK AT SITE ON THEIR OWN COST.

(Refer annexed file/section in e-tender portal for detailed Bill of Quantities)

TENDER DRAWINGS

(Refer annexed file/section in e-tender portal for Tender Drawings)