

INDIAN BANK
ZONAL OFFICE – VELLORE
PEARL ARCADE, 2ND FLOOR,
8TH EAST MAIN ROAD,
GANDHI NAGAR, VELLORE – 632 006.

TENDER FOR PROPOSED INTERIOR WORKS AT INDIAN BANK, JOLARPETTAI BRANCH, ALTERNATE PREMISES AT NO:23, TIRUPATTUR MAIN ROAD, S. KODIYUR, JOLARPET – 635 851

(Electrical and Air Conditioning work) (Branch & ATM)

(Only from Indian Bank Empanelled Contractors for works in Tamil Nadu and Union Territory of Puducherry who have undertaken works under relevant category need to apply)



SI. No	CONTENTS - PART - A
1	Notice Invitation of Tender
2	General Rules & Instructions for the Guidance of tenderers
3	General Conditions of Contract
4	Outline Conditions of contract
5	Additional conditions of contract
6	Preamble of Schedule of quantities
7	Articles of Agreement
8	Specifications

General rules



1.NOTICE OF INVITATION TO TENDER

Sealed tenders on item rate basis are invited from the shortlisted contractors having sound, technical and financial capacity to do Interior works of Proposed Electrical and Air Conditioning work (Branch & ATM) Indian Bank, Jolarpettai Branch, alternate premises, at No:23, Tirupattur Main Road, S. Kodiyur Jolarpet – 635 851. Tender documents can be downloaded from Indian Bank website www.indianbank.in.

Earnest Money deposit

: Rs.9,800/-(Excluding GST) (Rupees Nine Thousand Eight Hundred and Fifty only) by crossed pay order/bankers cheque in favour of Indian bank ,Zonal Office – Vellore payable at Vellore

Time of completion

: 21 (Twenty One) Calendar days.

Time and Date of submission of tender

: 03.00 P.M. on 16.12.2024 at Indian Bank, Zonal Office Vellore .

Time and Date of opening of tender

: 05.00P.M.on 16.12.2024 at the same address where tender is submitted.

Liquidated Damages for delay

: 1%(One percent) per week of the contracted amount subject to a maximum 10% of the accepted contracted sum.

Defects liability period

: 12months.

Validity of the Tender

: 90 Calendar Days

Rate to exclude GST

: GST registration is a must GST will be paid separately as per prevailing norms only. Rates quoted should exclude GST. But TCS (for GST) will be deducted if mandatory apart from TDS (for income tax). The rates quoted should also include the cost of transportation, carting wastages for all leads and lifts, night work etc.

Note:

The bank is not bound to accept the lowest tender and reserves the right to accept or reject any or all tender without assigning any reason whatsoever.



2.GENERAL RULES & INSTRUCTIONS FOR THE GUIDANCE OF TENDERERS

1. Tenders are invited on behalf of Indian Bank Zonal office Vellore Pearl Arcade, 2d Floor, 8th East Main Road, Gandhi Nagar, Vellore – 632 006. of Proposed Electrical and Air Conditioning work (Branch & ATM) Indian Bank Jolarpettai Branch, alternate premises at No:23, Tirupattur Main Road, S. Kodiyur Jolarpet – 635 851. Tender documents consisting of the plans, complete specifications, the schedule of quantities of the various classes of work to be done, and the set of conditions of contract to be complied with by the person. The tender shall be available in Indian Bank website www.indianbank.in.

The site for the work is available / or the site for the work shall be made available in parts as specified below.

- 2. Tenders, which should always be placed in a sealed cover, with the name of the project written on the envelope will be received by the Zonal Manager Indian Bank Zonal office Vellore Pearl Arcode, 2nd Floor, 8th East Main Road, Gandhi Nagar, Vellore 632 006. up to 03.00 pm on 16.12.2024. The tenders will be opened on the same day by 05.00 pm.
- 3. The time allowed for the carrying out of the work is 21 days from the date of written orders to commence work.
- 4. The contractors should quote in figures as well as in words the rates, and amount tendered by them. The amount for each item should be worked out and the requisite totals given.
- 5. Earnest money, amounting to Rs.9,800/-(Excluding GST) (Rupees Nine Thousand and Eight Hundred Only) in the form of Bank draft draw in favour of "INDIAN BANK" Zonal office -Vellore Vellore 632 006. must accompany each tender and each tender is to be in a sealed cover subscribed of Proposed Electrical and Air Conditioning work (Branch & ATM) Indian Bank Jolarpettai Branch, alternate premises at No:23, Tirupattur Main Road, S. Kodiyur Jolarpet 635 851. The EMD of the contractor, whose tender is accepted, shall be forfeited in full in case he does not remit the Initial Security Deposit within the stipulated period or start the work by the stipulated date mentioned in the award letter.
- 6. The acceptance of tender will rest with "INDIAN BANK" which does not bind itself to accept the lowest tender, and or reserves to itself the authority to reject any or all of the tenders received without the assignment of a reason. All tenders in whom any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

INDIAN BANK reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other conditions if his tender is accepted in parts.

- 7. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 8. All rates shall be quoted on the proper form of the tender alone.
- 9. An item rate tenders containing percentage below/ above will be summarily rejected.
- 10. On acceptance of the tender, the name of the accredited representative (s) of the contractor who would be responsible for taking instructions from the Employer/ Architects shall be communicated to the Employer.
- 11. Special care should be taken to write the rates in figures as well as in words and the amounts in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and words. `p' after the decimal figures, E.g Rs. 2.15 "p", and in case of words, the word "Rupees" should precede and the word "Paise" should be written at the end, unless the rate is in whole rupees and followed by the words `only' it should invariably be up to two decimal places. While quoting the rate in schedule of quantities, the word `only' should be written closely following the amount and it should not be written in the next line.

General rules



- 12. INDIAN BANK does not bind itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the quoted rates.
- 13. Sales Tax or any other tax on material or on finished works like work's contract tax, Turnover Tax etc., in respect of this contract shall be payable by the contractor and the **INDIAN BANK** will not entertain any claim whatsoever in this respect. This particular aspect should be mentioned in tender notice.
- 14. The tender for works shall remain open for acceptance for a period of 3 months from the date of opening of tenders. If any tenderer withdraws his tender before the said period, then the bank shall be at liberty to forfeit Earnest Money paid along with the tender.
- 15. The tender for the work shall not be witnessed by a contractor or contractor's who himself/ themselves has/have tendered or who may and had/have tendered for the same work. Failure to observe these conditions would render tenders of the contractors tendering as well as witnessing the tender liable to summary rejection.
- 16. It will be obligatory on the part of the tenderer to tender and sign the tender document for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the competent authority INDIAN BANK.
- 17. The tenderer, apart from being a competent contractor must associate himself with agencies of the appropriate class who are eligible to tender for other works.
- 18. The quoted price shall be firm & no discounts are acceptable on the final price.
- 19. If the contractor or his representatives are found to be absent from the site for more than 3 days the contract is deemed to be terminated by him.

General rules

3.GENERAL CONDITIONS OF CONTRACT

Except where provided for in the description of the individual item in the schedule of quantities and in the specifications and conditions laid down here in after and in the drawings, the work shall be carried out as per standard specification and under the direction of Employer/ Architects.

1. INTERPRETATION

In construing these conditions, the specifications, the schedule of quantities, tender and agreement, the following words shall have the meaning here in assigned to them except where the subject or context otherwise require

Employer: The term Employer shall denote Indian Bank Zonal office Vellore Pearl Arcade 2nd Floor, 8th East Main Road, Gandhi Nagar, Vellore – 632 006. any of its employees representative authorized on their behalf.

Contractor: The term Contractor shall mean his/their heirs, legal representative, assignees and successors.

Site: The site shall mean the site where the works are to be executed as shown within boundary in red border on the site plan including any building and creations thereon allotted by the Employer for the contractor use.

Drawings: The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the Employer during the execution of the work. All drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Employer/ Architects shall be given access to such drawings or schedule of quantities whenever necessary.

In case any detailed drawings are necessary the contractor shall prepare such detailed drawings and / or dimensional sketches there for and have it confirmed by the Employer / Architects prior to taking up such work. The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or for additional instructions at least 5 days ahead from the time when it is required for implementation so that the employer may be able to give decision thereon.

"The Works" shall mean the work to be excited or done under this contract.

"Act of Insolvency" shall mean any act as such as defined by the Presidency Towns Insolvency Act or in Provincial insolvency Act or any amending statuaries.

"The Schedule of Quantities" shall mean the schedule of quantities as specified and forming part of this contractor.

2. Scope

The work consists of construction of Employer's (details of work) in accordance with the "drawings" and Schedule of Quantities". It includes all materials, labour, tools and equipment and management necessary for and incidental to the construction and completion of the work, during its progress and upon completion, shall conform to the lines elevations and grades as shown on the drawings furnished by the employer/architects. Should any detail essential for efficient completion of the work be omitted from the drawings and specifications it shall be for responsibility of the contractor to inform the Employers / Architects details with Employers/ Architects concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use.



Employer / Architects may in their absolute direction issue; further drawings and written instructions, details, directions and explanations, which are, here after collectively referred to as "The Employers' / Architects Instructions" in regard to:

- a. The variation or modification of the design quality or quality of works or the addition or omission or substitution of any work.
- b. Any discrepancy in the drawing
- c. The removal from the site of defective material brought there on by the contractor and the substitution of any other material thereof.
- d. The demolition, removal and re-execution of any work executed by the contractors.
- e. The dismissal from the work any persons employed there upon.
- f. The opening from the work of any persons covered up.
- g. The rectification and making good of any defects under causes hereinafter Mentioned and those arising during the maintenance period (retention period)

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

Regarding all factory make products for which BIS (Bureau of Indian Standard) marked products are available, only products bearing BIS marking shall be used in work.

2. TENDERER SHALL VISIT THE SITE

Intending tenderer shall visit the site and make himself thoroughly acquainted with the local site conditions, nature and requirements of the works, facilities of transport condition, effective use of materials, access and storage for materials and removal or rubbish. The tenderer shall provide in their tender for cost of carriage, Freight and other charges as also for any special difficulties including police restriction for transport etc. for proper execution of work as indicated in the drawings.

The successful tenderer will not be entitled to any claim of commencement of the work or which in the opinion of employer/Architects might be deemed to have been inferred to so exist before commencement of work.

TENDERS

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

The Schedule of quantities shall be filled as follows:

XIX. The rate column to be legibly filled in ink in both English figures and English Words.



- XX. Amount column to be filled in for each item and the amount for each sub head as detailed in "Scheduled of Quantities"
- XXI. All corrections are to be initialed.
- XXII. The Amount column for alternative items for which the quantities are to be mentioned shall not be filled up.
- XXIII. In case of any errors, the rates given in the tender marked `original' shall be taken as correct rates.

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

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

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

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

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

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

5. AGREEMENT

The successful contractor may be required to sign an agreement as may be drawn up to suit local conditions and shall pay for all stamps and legal expenses, incidental there to.

6. TAXES AND DUTIES

The tenderers must include in their tender prices quoted for all duties royalties, less and sales for or any other taxes or local charges if applicable.

7. PROVISIONAL SUMS

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



8. QUANTITY OF WORK OF BE EXECUTED

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

9. OTHER PERSONS ENGAGED BY THE EMPLOYEES

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

10. EARNEST MONEY AND SECURITY DEPOSIT

The tender will have to deposit an amount equivalent to Rs.9,800/- (Rupees Nine Thousand and Eight Hundred Only) (Excluding GST) in the form of Bank Draft in favour of Indian Bank, Zonal office – Vellore payable at Vellore – 632006. at the time of submission of tender as an Earnest Money Deposit. The Employer is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken or after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit as initial security deposit a further sum to make up 2% of the value of the accepted tender including the Earnest Money. The initial security Deposit will have to be made within 3 days from the date of acceptance of tender, failing which the Employer at his discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with tender. The initial security deposit will be refunded after satisfactory completion of work (as certified by architect). Apart from the initial security deposit made as above, retention money shall be deducted from progressive running bill @ 8% of the gross value of each running bills.

The retention amount will be refunded to the contractor 14 (fourteen) days after the end of defect liability period provided he has satisfactorily carried out all the work and attended to all defects in accordance with the conditions of the contract. No interest in allowed on retention money.

11. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The contractor shall provide everything necessary for the purpose of execution of the Work according to the intent and meaning of the drawings, schedule of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown described therein provided that the same can reasonably be inferred there from. The contractor shall provide himself for ground and fresh water carrying out of the works at his own cost. The Employer shall on no account be responsible for the expenses incurred by the contractor for hired ground or fresh water obtained from elsewhere.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items or work within the contemplation of the contract, and beyond the unit price no extra payment, will be allowed for incidental or contingent work. Labour and / or materials inclusive of all taxes and duties, whatever except for specific items, if any stipulated in the tender documents.

The contractor shall at all time give access to workers employed by the Employer or any employed on the buildings and to provide them with water and leave or make any holes, grooves etc., in work. Where directed by the employer as may be required to enable such workman to lay or fix pipes, electrical wiring special fittings etc. The quoted rates of the tenderers shall accordingly include all these above mentionable contingent works.

12. TIME OF COMPLETION / EXTENSION OF TIME & PROGRESS CHART

The entire work is to be completed in all respects within the stipulated period of **21 days**. The work shall deem to be commenced within 2 days from the date of acceptance letter or date of handing over of site, whichever is earlier. Time is the essence of contract and shall be strictly observed by the contractor.

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

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

In case of such strikes or lockouts as are referred to above, the contractor, shall, immediately give the employer, written notice thereof. Nevertheless he shall use his best endeavors to prevent delay, and shall do all that may be reasonably required, to the satisfaction of the Employer for any extension of time for completion hereunder (which shall be final and binding on the contractor) shall be promulgated at the conclusion of such strike or lock – out and the Employer shall be then, in the event of an extension being, granted, determine, and declare the final completion date. The provision in clause 13 with respect to payment of liquidated damages shall be construed as if the extended date fixed by the Employer was submitted for and the damages shall be deducted accordingly.

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

13. LIQUIDATED DAMAGES

The entry for the quantum of LD per week of delay, appropriate for the case in hand, should be selected from the following:

For contracts having time for completion 6	1.00% of the estimated amount shown in
months and less.	Tender per week.
For contracts having time for completion	0.50% of the Estimated amount shown in
Exceeding 6 months But not exceeding 2 years (tender per week
months)	
For contracts having Time for completion In	0.25% of the Estimated amount shown in
excess of 2 years	tender per week.
The entry of the quantum of the maximum LD, the	accrual of which entitles the Bank to conclude
the contract should be selected from the following	as may applicable:
For contracts having Time for completion 6	10.0% of the accepted Contract Sum
months and less	, , , , , , , , , , , , , , , , , , , ,
For contracts having Time for completion	7.5% of the accepted contract sum. Subject
Exceeding 6 months But not exceeding 1 year	To the provision of para below.
Exposeding a monthly but not exposeding 1 year	To the provision of para select.
	I



14. NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNERS

The contractor shall conform to the provisions of any acts of the legislature relating to the work, and to the Regulations and Bye laws of any authorities and / or any water, lighting and other companies, and / or authorities with whose systems the structures were proposed to have connection.

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

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

15. ACCESS:

Any authorized representative of the employer shall at the reasonable times have free access to the workshop, factories or other place where materials are being prepared or constructed for the works and also to any place where the materials are lying or from where that are being obtained, and the contractor shall give every facility to the bank or their representative everything necessary for inspection and examination and test of the materials and workmanship. Except the representative of the employer no person shall be allowed at any time without the written permission of the Employer.

16. MATERIALS, WORKMANSHIP, SAMPLE, TESTING OF MATERIALS

All the works specified and provided for in the specifications or which may be required to be done in the manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications as any from their entire satisfaction. If required by the Employer / Architects during the execution of the work, and their entire satisfaction. If required by the employer / Architects the contractor shall carry tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Employer/Architects at his own cost to prove that the materials etc. under test conform to the relevant B.I.S. or as specified in the specifications. The necessary charges for preparation of mould (in case of concrete cube) transporting, testing etc, shall have to be borne by the contractor. No extra payments in this account should in any case be entertained. All the materials (Except where otherwise described) stores equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales, tax control and other charges and must be the best of their kind available and the contractor's must be entirely responsible for the proper and efficient carrying out of work.

The work must be done in the best workman like manner. Samples of all materials to be used would be submitted to the Employer / Architects when so directed by the Employer / Architects and written approval from Employer / Architects must be obtained prior to placement of order. Should the work be suspended by reason of rain, strike, lock out or any other cause the contractor shall take all precautions necessary for the protection of work at his own expenses and shall make good any damage arising from, any of these causes. The contractor shall cover up and protect from damage from any cause, all new work and supply, temporary/doors, protection to windows and any other requisite protection for execution of the work whether by himself or special trades men or sub contractor and any damage caused must be made good by the contractor at his own expense.

17. REMOVAL OF IMPROPER WORK

The Employer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or time as they be specified in the order of any materials which in the opinion of the Employer/Architects are not in accordance with specification or instructions. The substitution or proper re-execution of any work executed with materials or workmanship



not in accordance with the drawings and specification or instructions, in case the contract or refuses to complete and pay other agencies to carry out the work and all expenses consequent thereon or incidental therein or incidental thereto as certified by the Employer / Architects shall be borne by the contractor or may be deducted from any money that may become due to the contractor. No certificate, which may be given by the Architects, shall relieve the contractor from his liability in respect of unsound work or bad work.

18. CONTRACTOR EMPLOYEES

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

The contractor shall employ labourers on the work as far as possible.

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

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

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

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

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

19. DISMISSAL OF WORKMEN

The contractor shall on the request of the Employer immediately dismiss from works any person employed thereon by him, who in the opinion of Employer is unsuitable or incompetent or who may misconduct himself. Such discharge shall not be the basis of any claim for compensation damages against the Employer or their office or employees.

20. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.,

The contractor shall be responsible for any injury to the work or workmen to persons, animals or things and for all damages to the structural and / or of any sub-contractor or of any of his or sub-contractor's employees, whether such injury or damages arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The causes shall be held to include inter – alias, streets, foot path or ways as well as damages caused to the buildings and the works forming the subject of this Contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the employer and hold harmless in respect of all and any expenses arising from any such injury or damages to persons or property as aforesaid or damage consequent upon such claim.



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

21. INSURANCE

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

The contractor shall deposit the policy and receipt for premiums paid with the Employer within 7 days from the date of issue of work order unless otherwise instructed. In default of the contractor insuring as provided above, the employer on his behalf may insure and may deduct the premium paid from any bills which may become due to the contractor. The contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as through the fire has not occurred and in respects of the conditions of the contract.

22. ACCOUNTS RECEIPT AND VOUCHERS

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

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

23. ADVANCE PAYMENTS AND SECURED ADVANCES

Advance payment for works actually executed but not measured and billed for, should not be made generally. Payment should only be made after the detailed measurements of the work are taken recorded and the contractor's bill for the same is approved by the competent Authority.

However, advance payment on the running bills to the extent of 75% of the Architect certified amount might be made whenever found necessary. In such cases, it shall be the test checking of the measurements & scrutiny of bills are completed before payment of the next running bills.

Secured advances on the security of materials brought to site may be made to the contractor's whose contract is for finished work. In such cases, the competent Authority may sanction advances up to an amount not exceeding 75% of the value (invoiced/assessed value) of such materials, provided that they are of a durable / non – failure nature and that an Indemnity Bond is required on the materials and is a safeguard against losses due to the contractor postponing the execution of the work or to the shortage or misuse or the materials, and against the expense entitled, if any, for their proper watch and safe custody. Recoveries of advances so made should not be postponed until the whole of the work entrusted to the contractor is completed. They should be made from his bills for works done as the materials are used, the necessary deductions being made wherever the item of work in which they are used are billed for.



24. PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Employer/Architects. One interim bill shall be prepared every week subject to minimum value for interim certificate as stated in these documents. The bills in proper forms must be duly accompanied by detailed measurements in support of the quantities or work done and must show deductions for all previous payments etc.,

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

The Amount stated in an interim certificate shall be the total values of work properly executed and 70% of invoiced value of materials brought to site for permanent incorporation into the work up to the date of the bill less the amount to be retained by the employer as retention money vide clause 10 of these conditions and less installment previously paid under these conditions provided the certificate shall only include the value of said materials and goods as from such time as they are reasonably, properly and not prematurely brought and placed adjacent to the work and then only if adequately protected against weather or other causalities.

The employer will deduct retention money as described in clause 10 of these conditions. The refund of retention money will be made as specified in the said clause. If the Employer has supplied materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due the contractor, in accordance. All the interim payments shall be regarded as payments for work actually done and completed, and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the according of any claim, nor shall, it determine or affect in anyway the power of the employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way affect the contract. The final bill shall be submitted by the contractor within one week of the date fixed for completion of the work or of the date of certificate of completion furnished by the Site Engineer. All final payments shall be made within 3 months.

25. FINAL PAYMENTS

The final bill shall be accompanied by a certificate of completion from the Architects. Payments of final bill shall be made after deduction of Retention Money as specified in clause 10 of these conditions, which sums shall be refunded after the completion of Defects Liability Period after receiving the Architects' certificate that the contractor has rectified all defects to the satisfaction of Employer. The acceptance of payment of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

26. VARIATON /DEVIATION

The price of all such additional items/non – tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing or on engineering rate analysis based on prevalent fair price of labour, material and other components are required. The tender rates shall hold good for any increase or decrease in the tendered quantities upon variation of 25%. For variation beyond + or -25% the rate for the respective item may be reviewed on mutually agreed terms.

27. SUBSTITUTION

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the designated in this specification indefinitely by such terms as "Equals" or "Other approved" etc. specific approval of the Employer/Architects has to be obtained in writing.



28. PREPARATORY OF BUILDING WORKS FOR OCCUPATION AND USE ON COMPLETION

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

29. CLEARING SITE ON COMPLETION

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

30. PERIOD OF FINAL MEASUREMENT

The entry for the period of final measurement after completion shall be made after taking into account the complexity of the work and staff available for carrying out measurements.

All hidden works shall have already been measured as the work progressed.

It should be noted that unless a longer period is stipulated, the condition of contract generally lays down three months (maximum) from the date of completion of the contract as the period of final measurement.

Even though the maximum period of three months is mentioned, it shall be endeavored to complete the measurements as expeditiously as possible.

31. VALUE OF WORK FOR INTERIM CERTIFICATE

The maximum value of work done, entitling the contractor to receive an interim payment is generally arrived at after dividing the estimated value of the contract (as announced in the Notice of Tender) by the time (in months) allowed for completion of work.

The above value rounded off to the nearest thousand is entered.

32. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of employer all defects, Shrinkage, settlements or other faults, which may appear within 12 months after completion of work. In default the Employer may employ a person and amend and make good such damage, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from his by the Employer or may be deducted from the contractor deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the contractor from amount retaining under clause No.10 together with any expenses the Employer may have incurred in connection their with.

33. ESCALATION

The rate quoted shall be firm throughout the tenure of the contract (including extension of time, if any, granted) and will not be subject to any fluctuation due to increase in cost of materials, sales tax, octroi, etc., Unless specifically provided in the documents. The price variation clause being adopted by the RBI may be followed, if such a situation arises on a case – to – case basis.



34. IDLE LABOUR:

Whatever the reasons may be, no claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would not be entertained under any circumstance.

35. SUSPENSION

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

After such notice shall have been given the contractor shall be at liberty to remove from the site of the works or from any contiguous there to any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with.

36. TERMINATION OF CONTRACT BY EMPLOYER

If the contractor being a company into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in numbers of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the official Assignee in insolvency, or the Receiver of the contractor in solvency, shall repudiate the contract, or if a insolvency, or if a Receiver of the contractor's firm appointed by the court shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the employer that he is able to carry out and fulfill the contract. and if so required by the employer to give reasonable security therefore, or if the contractor shall suffer execution to be issued, or hall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by contract, to be observed and performed by the contractor within the clear days after the notice shall use improper materials on workmanship in carrying on the works, or shall in the opinion of the employer not exercise such due diligence and make such due progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the employer after three clear days notice requiring the contractor so to do shall have been given to the contactor as hereinafter mentioned or shall abandon the contract, then and in any of the said case, the employer may notwithstanding previous wavier determine the same by a notice in writing to the effect as hereafter, mentioned, but without hereby effecting the powers of the employer of the obligations and liabilities of the contactor the whole of which shall continue in force as fully as if the contract, had not been so determined and as if the works subsequently executed had been executed by or on behalf of the contractor (without thereby creating any trust in favour of the contractor) further the employer or his agent, or servants, may other power, utensils ad materials lying upon a premises or the adjoining lands or roads and sell the same as his own servants and workmen in carrying on and completing the works or by the employing any other contractor or other persons or person to complete the works and the contractor shall not in anyway interrupt or contractor or others person to complete the works and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be the employer shall give notice writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within a period of 14 days after receipt by him the employer may sell the same by public auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the employer in getting the works carried out by other contactor shall be adjusted against the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractor or against the security deposit.

37. ARBITRATION

All disputes or difference of any kind whatsoever which shall at any time arise between the parties to touching or concerning the works or the execution or maintenance there of this contract or the rights over the remaining operation or effect therefore or to the right or liabilities of the parties or arising our of in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of nay person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the either of them to employer hereinafter mentioned be referred for adjudicating to a sole arbitrator to be appointed as hereinafter provided. For the purpose of appointing the sole arbitrator referred to above, the employee shall send within thirty days of receipt of the notice, to the contractor a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed. The contractor shall on receipt of the names as aforesaid, select any one of the persons name to be appointed as a sole arbitrator and communicate his name to the employer within thirty days of receipt of the names. The employer shall thereupon without any delay appoint the said person as the sole arbitrator. If the contractor fails to communicate such selection as provided above within the period, specified the competent authority shall make the selection and appoint the selected person as the Sole Arbitrator.

The work under the Contractor, shall, however, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.

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

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

The fees, if any, of the arbitrator, shall, if required, to be paid before the award is made ad published, be paid half and half by each of the parties. The cost of the reference and of the award including the fees, if any, of the Arbitrator who may direct to and by whom and in what manner, such costs or any part there of shall be paid and, may fix or settle and amount of costs to be so said.

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

Subject to aforesaid the provisions of Arbitrator Act 1940 or any statutory modification or reenactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration under this clause.

The Employer and the contractor hereby also agree that arbitration under clause shall be a condition precedent to any right to action under the regard to the matter hereby expressly agreed to be so referred to arbitration.



4. OUTLINE CONDITIONS OF CONTRACT

1. Earnest Money Deposit

Rs.9,800/-(Excluding GST)

2. Defects liability period (DLP)

One Year

3. Date of Commencement

Two days from the date of award

Of work.

4. Date of Completion

21 days

5. Security Deposit (ISD)

2%

6. Period of Final Measurement

One week from the date of

Completion

7. Liquidated damages

1% per week

8. Value of work of interim certificate

Rs. 5.00 Lakhs

9. Retention Money

8% of the certified bill

10. Period of Honouring Certificate

15 days

11. Insurance

Workmen compensation and

Contractor all risk for full Value of contract, third

party liability.



Outline of contract

5. ADDITIONAL CONDITIONS OF CONTRACT

1. SCOPE OF WORK

The schedule of Quantities and the tender drawings are only indicative of the scope of work. There may be variation in quantities of individual items as well as in the total quantum of work of upto + 20%. The contractor will not be liable to omission altogether of some of the items.

2. COMPLETION SCHEDULE

The contractor will be required to work according to a program me given to them by the Consulting Architects, based on the priorities of the Employers. The contractor will be required to prepare bar charts on the basis of the program me given to them and get these approved by Employer/Architects. While the overall completion program me of the work will be 14 days, certain items may be required to be completed in shorter periods, varying from 7 to 14 days.

3. WATER AND ELECTRICAL ENERGY

Water and electrical energy required for work be provided by the employer at one point free of charge, and the contractor will be required to make his own distribution and arrangements for them. Cost of electrical energy consumed would be payable by the contractors according to Government tariffs.

4.OTHER RULES AND REGULATIONS

- a. All E.S.I formalities or prescriptions under Workmen Compensation Act will be adhered to by the contractor. He will have to observe the regulations prescribed under the contracts Labor Regulations & Abolition Act, 1970 and rules formed hereunder.
- b. The contractor shall not employ labor below the age of 18 years and shall pay them not less than the wages paid for similar work on the fair wage. Fair wage men's wage whether for time of piece work as defined in the Minimum Wages Act.



additional conditions

6. PREAMBLE TO SCHEDULE OF QUANTITIES

- 1. Tender shall be on the basis of item rates which shall include the cost of materials, labour, all taxes, duties, and all other appurtenant services required for the complete installation, testing and commissioning in accordance with relevant drawings and meeting the requirements of the specification and relevant I.S Specification including the fees for inspection together with the liabilities and obligations as detailed in the general conditions of contract.
- 2. Prices shall remain firm and free from variation due to rise and fall in the cost of materials and labor or any other price variation whatsoever whether during the stipulated period of execution or during extended period of completion if any, except direct statutory, increases by the Act of Govt. or Local bodies.
- 3. Item rates shall remain valid for any variation in the estimated quantities given in the schedule of quantities.
- 4. In order to facilitate the technical scrutiny of various quotations, the tenderer must supply with their quotations detailed technical particulars, make catalogues and erection drawings for various items under different parts specified in the schedule of quantities.
- 5. The drawings and specifications lay down minimum standards for equipments and workmanship. Deviations, if any, shall be clearly set down. In the absence of any deviations, it will be deemed that the tenderer is fully satisfied with the intents or the specifications and drawings and their compliance with the statutory and fire insurance provision including local codes. Where the drawings and specifications conflict the more stringent shall supply.
- 6. All installations shall be tested as specified and a test certificate in the prescribed form required by the authorities shall be furnished.
- 7. The entire installation shall be guaranteed against defective materials of workmanship for a period of 12 months from the date of installation as certified by the Architects and taken over by the owner. During the guarantee period, all the defects shall be rectified by the contractor, free of cost.
- 8. Water and power required for the works may be made available at site. Use of electrical power will be on chargeable basis. If the water available at site in unsuitable for construction purpose, the contractor will have to make their own arrangement for water.
- 9. The tender must acquaint themselves of the site conditions and take note of all factors while quoting the rates, so no extra will be allowed on any ground.
- 10. The successful tender shall supply completion drawings of the entire installations as executed at site drawn to a scale approved by the architects after the completion of the work but before completion certificate is given by the Architects.
- 11. The materials of the 1st preference shall be used and the contractor may exclude himself of not doing so only if the required range as per tender specifications is not manufactured, by the particular manufacture. The evidence of such case shall be supported by a letter from the respective manufacturer. Samples of all fittings and accessories shall be approved by the Employer/Architects prior to their installation.

Preamble to BOQ

7. ARTICLES OF AGREEMENT

Made at Chennai between Indian Bank Zonal office Vellore Pearl Arcade 2nd Floor, 8th East Main Road, Gandhi Nagar, Vellore – 632 006.(Herein after referred to as the Employer, which expression, which expression shall include his heirs, Executors, administers & in assigns) of the one part and (hereinafter referred to as the Contractor, which expression shall include his heres, executors Administrators & Assigns) of the other part.

WHEREAS the employer is desirous of . of Proposed Electrical and Air Conditioning Work (Branch & ATM) Indian Bank Jolarpettai Branch, alternate premises at No:23, Tirupattur Main Road, S. Kodiyur Jolarpet – 635 851. Caused Drawing and specifications describing the work to be done by Arun Architects (herein after referred to as the Consulting Architects)

WHEREAS the said Drawings and the specifications and the priced Schedule of Quantities have been signed by or on behalf of the parties hereto and

WHEREAS the Contractor has agreed to execute upon and subject to the conditions, set forth herein (hereinafter referred to as "the conditions") the work shown upon "the said Drawings" and described in "the said Specification" and "the said Priced Schedule of Quantities" at the representative rates mentioned in the priced Schedule of Quantities.

NOW IT IS HEREBY AGREED AS FOLLOWS:

- In consideration of the payment to be made to the Contractor as hereinafter he shall upon and subject to said conditions, execute and complete the works shown upon said drawings and such further detailed drawings as may e furnished to him by the said consulting architects and described in the said specification and the said priced Schedule of Quantities.
- The term "Consulting Architects" in the conditions shall mean the said Arun Architects or in the event of their death or ceasing to be the Consulting Architects for that purpose of this contract, such other person 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 in sufficient by the Employer. Provided always that no persons subsequently appointed to be consulting Architects under this contract shall be entitled to disregard or over-rule any decision or approval or direction or expressed in writing by the consulting Architects for the time being.
- 3. The plan, agreement and documents above mentioned shall form the basis of this contract and the decision of the said Consulting Engineers/Architects for the time being as mentioned in the Conditions of contract in reference to all matter of dispute as to the materials, workmanship or account and so as to the intended interpretation of the clauses of the Agreement of any other document attached hereto shall be final and binding on both parties and may be made a Rule of Court.
- 4. The said contract comprises the works above mentioned and all subsidiary works connected therewith within the same site as may be ordered to be done from time to time by the said employer through the consulting Architects or other the Consulting Architects for the time being, even though such works may not be shown on the drawings or described in the said specifications or the Priced Schedule of quantities.
- 5. The Employer reserves to himself the right of altering the drawings and nature of the work and of adding to or omitting any items of work or of having portions of the same carried out without prejudice to this contract.
- 6. The said conditions shall be read as forming part of this Agreement, and the parties hereto will respectively, abide by and submit themselves to the conditions and stipulations and perform the agreement on their parts respectively in such conditions contained.

Form of agreement



- 7. Further, letter exchange between the Employer and the Contractor after the receipt of this contract as listed, shall from an integral part of this contract.
- 8. The several parts of this contract form have been read to us and fully understood by us.

As witness our hands this Signed by the Said		Employer
		Employer
In the presence of		Contractor
Signed by the said		
In the presence of	-	

8.SPECIFICATIONS

All works should conform to Standards laid down by the Bureau of Indian Standards.

Wherever detailed specifications are not given, the works shall be carried out as per CPWD specifications Vol I & II with latest addition and corrections.

SPECIFICATIONS - GENERAL REQUIREMENTS

- 1A. List of Tender drawings is given elsewhere in the Tender Documents. These drawings are meant for Tenders and Construction also. These drawings may be revised and fresh revised copies issued to the contractor from time for adoption in the work to suit the final Designs and the physical conditions encouraged during the progress of the work.
- 1B. Figured dimensions on drawings shall only be followed and drawings to large scale shall take precedence over these to smaller scale.
- 1D. The contractor shall prepare, at his own cost, detailed shop drawings and shall obtain the approval of the consultant / Client before adoption.
- 2A. The specification is intended for general description of quality and workmanship of materials and finished work. They are not intended to cover minute details. The work shall be executed in accordance with sound engineering and other professional practice.
- 2B. Where reference is made to any standard specification of Bureau of Indian Standards or any other similar body, the information and provision of the latest revised edition of the specification on the date of submission of such standard specification are in conflict with the provisions standard in these specifications the latter provisions shall have procedures.
- 2C. All materials shall be of standard quality manufactured by reputed concerns conforming to Indian Standard or equivalent and shall have "BIS" mark as far as possible unless otherwise approved by the Consultant/ Client. The contractor shall get all materials approved by the Consultant / Client prior to procurement and use.

3. MEASUREMENT AND PAYMENTS

- 3A. The quantities stated in the Bills of Quantities are tentative. The contractor shall be paid at the quoted rate and on the basis of actual measured dimensions of the finished work, limited however by those dimensions shown in the drawings, or as directed by the consultant / Client.
- **3B.** Measurement of work shall be generally in accordance with IS: 1200 "Method of Measurement of Building and Civil Engineering Work" except where the stipulations of the Tender are contradictory.

4.LAYOUT AND SURVEYS

The contactor shall be responsible for the true and proper setting out of works, for the correctness of position, levels, dimension and alignment of all part of the works and for the provision of all necessary instruments, appliances and labor in connection there with. If at dimensions or alignments of any part of work, the Contractors, on being required to do so, shall at his expenses rectify such errors. Checking of any setting out or of any line or level by the Consultant / Client shall not in any way relieve the Contractor of his responsibility for the corrections there of.

List of materials

5.CONSTRUCTION SHCEDULE AND TIME OF COMPLETION

- 5A. A BAR chart shall be submitted by the contractor detailing out the complete construction activities for each work within 7 days of start of work at site. This chart shall be reviewed by the Consultant / Client and alterations, if any, shall be made by the contractor; this chart will form the basis or reappraisal to evaluate the progress of work at site.
- 5B. The drawings shall be issued to the contractor at least one week in advance before commencement of work.
- 5C. No extension of time shall be granted on the plea of drawings not having been received in time provided the above time schedule is adhered to.

6.CO-OPERATION WITH OTHER AGENCIES

6A. During the course of implementation of this contract, several other agencies and contractors shall be working at site simultaneously. In order to effect proper co-ordination and avoid delays, it shall be the responsibility of the contractor of this Tender to give adequate notice and exact dates of the work proposed to be executed by him which requires the placement and fixation of embedment, et., by the other agencies. The safety and prevention from damage of all materials, plant etc., of other agencies or the owners during construction activities would remain with the contractor. In the event of damage or loss, caused, indirectly or directly by contractor or his labour, he will be responsible to make good the same as advised/instructed by the Consultant /Client.

7.DELIVERY OF WORKS

Every portion of the work shall be kept clear of accumulation from time to time and delivered up clear and free from all defects of every kind at the conclusion of the work.

8. RELATION TO OTHER DOCUMENTS

- 8A. The technical specification is intended for general description of items listed in the Bills of quantities. All works specified or implied in the Technical Specification form a part of the items in the Bills of Quantities. Similarly, all indications in drawings and General description of works, whether specified or implied form a part of the items in the Bills of Quantities.
- 8B. The quoted rates in the bills of Quantities shall be assumed to include all the specified and implied work of the Technical specifications, drawings and General Description of works even when not specifically mentioned in the Bills of quantities.

9.LIFTS AND LEADS

- 9A. The rates quoted for all items of work shall include all lifts and leads where applicable.
- 9B. All debris and waste materials shall be disposed away from the site to a far off place as directed.

List of materials

SUMMARY (JOLARPET BRANCH)

SI.No	Description	Amount (RS)
		2
ı	BRANCH	
1.	ELECTRICAL WORK	
2.	DATACABLING WORK	
3.	AIR CONDITIONING WORK	
	BRANCH TOTAL (EXCLUDING GST)	
- 11	ATM	
1.	ELECTRICAL WORK	
2.	AIR CONDITIONING WORK	
	ATM TOTAL (EXCLUDING GST)	
- 1 a	BRANCH & ATM TOTAL(EXCLUDING GST)	

P	į	a	C	e	:

Date:



	SCHEDULE OF QUANTITIES				
SI. No	BRANCH-ELECTRICAL WORK Description of work	Qty	Rate	Per Unit	Amount (Rs.)
1	LIGHTING AND POWER WIRING				
1.1	Supply, wiring, testing and commissioning of Light points with 3R 1.5Sqmm, PVC insulated FRLS copper wire in a PVC conduit for P/N/E along with Modular 6A one way switch/6A socket with molded front plate GI anodized enclosure and other associated accessories as required as per the site conditions, etc				
a)	One light controlled by One switch.	34		P/Pt.	
a)	Two light controlled by One switch.	5		P/Pt.	
b)	Switch board plug point	7		P/Pt.	
c)	Fan point	5		P/Pt.	
d)	Wall fan points	10		P/Pt.	
e)	Exhaust fan Point	3	4	P/Pt.	-
1.2	Supply, laying, testing and commissioning of 3R of 2.5Sqmm PVC insulated FRLS PVC copper wire in as required at site in 2mm thick PVC conduit for lighting mains	220	ж,,	P/Mtr	
1.3	Supply, laying, testing and commissioning of 3R of 2.5Sqmm PVC insulated FRLS PVC copper wire in as required at site in 2mm thick PVC conduit for UPS socket. Not more than 2 UPS Point to be connected to one circuit, etc.,	220		P/Mtr	
1.4	Supply, laying, testing and commissioning of 3 runs of 2.5Sqmm PVC insulated FRLS PVC copper wire in 2mm thick PVC conduit as required at site for Raw power sockets. Not more than 4work station point to be connected to one circuit.	250		P/Mtr	2
1.5	Supply, laying, testing and commissioning of 2 runs of 4Sqmm. And 1 run PVC insulated FRLS multistrand copper wire in PVC conduits as required at site for AC power.	220		5.00	·
1.6	Supply, laying, testing and commissioning of 4 runs of 4 Sqmm and 1 run of 2.5 sqmm wire PVC insulated FRLS multistrand copper wire in 2mm thick PVC conduit as required at site for UPS	220		P/Mts	
1.7	Supply, laying, testing and commissioning of 4 runs of 6 Sqmm and 1 run of 2.5 sqmm wire PVC insulated FRLS multistrand copper wire in 2mm thick PVC conduit as required at site for Lighting Main	150		P/Mts	
-		180		P/Mts	
2.1	POWER PLUGS AND SOCKETS Supply and fixing of 2 nos 16 A switch controled 2 nos 16 /6 A socket with switch modular with molded front plate with PVC enclosure and other accessories associated chasing embedding rough plastering as required as per the conditions.	, and the second			
		10		P/No	-

SI. No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
2.2	Supply, installation, testing and commissioning of 3 Nos. 6A socket controlled by 3 Nos. 6A switch with molded front plate PVC enclosure enclosure and other associated accessories in the work station as required as per the site conditions.(UPS POWER)				,
	to the payment of the second	12		P/Set	
2.3	Supply and fixing of 6A switch, sockets modular type with molded front plate PVC enclosure and other accessories associated chasing embedding rough plastering as required as per the site conditions. (Raw power)				y V
	. '	12	0 0	P/No	
3	PANELS AND DISTRIBUTION BOARDS				
3.1	Supply, erection, testing and commissioning of main panel board with the following: INCOMING - 125A MCCB O/G - 63A TPN MCB - 4No. 100A TPN - 1Nos.				
	With indication lamp and Aluminum Bus bar rating of 200A.	1		P/Set	
3.2	Supply, erection, testing and commissioning of three phase 6 WAY, TPN MCB DB double door vertical type, IP 42 powder coated for AC DB with: 100A TPN MCCB – 1No as INCOMER 16/32A SP MCB – 12 Nos. as OUTGOING Including all interconnections & ccessories etc				
		1		P/Set	
3.3	Supply, erection, testing and commissioning of Single phase 12 WAY, SPN MCBDB double door type, IP 42 powder coated for UPS with 63A DP (100 Million Breaking Capacity ELCB – 1No as INCOMER (10A SP MCB – 10 Nos. as OUTGOING Including all interconnections & accessories etc	-			
	3	2		P/Set	
3.4	Supplying and fixing 4way TPN MCB DB Double door comprising: 1No 32A TPMCB (100 Million Breaking Capacity ELCB — 1No as Incomer and 12Nos. 6/10 A SP MCB as Outgoing for Lighting circuits	1		1No	
3.5	Supply, erection, testing and commissioning of 63A DP MCB with Double door enclosure for UPS input/Output control.				
3.6	Supply&Installation of 32A Metal Clad Socket with top in a specified company manufactured box with suitable rating MCB for connecting A/C points	3		P/no	,
		7		P/No	

SI. No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
3.7	Supply, erection, testing and commissioning of three phase 4 WAY, TPN MCB DB double door type, IP 42 powder coated for Power DB with:				
	63A TPN MCB (100 Million Breaking Capacity ELCB – 1No) as INCOMER				
	6/32A SP MCB – 12 Nos. as OUTGOING Including all interconnections & accessories etc	1		D/No.	
3.8	Supply and Fixing of 63 A TPN MCB with enclosure (UPS main)			P/No	
3.9	Supply and fixing 63A phase selector switch with indicator etc	2		P/No P/No	
4	LIGHTING FITTINGS				
4.1	Supply & fixing of the following light fittings with all accessories, tubes, ballast's, suspension wires from ceiling, false ceiling, anchor fasteners, chains, bolts, nuts etc.,		2		100
4.2	Supply & Installation of 1x36 watts 2'x2'LED light fitting with fixture (make)	21		P/No	
4.3	Supply and installation of $1 \times 22 - 4'-0''$ LED light fitting.	12		P/No	
4.4	Supply and installation of 1x10 watts 2' LED lamp light fitting.	3		P/No	-
4.5	Supply & Installation of 1 x 15 watts LED Light fitting with fixture (Wipro, Philips or Equivalent make)	10	7	P/No	
4.6	Supply & Installation of of 48" Sweep ceiling fan. (Crompton make)	5	19 111 2 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P/No	
4.7	Supply & Installation of 12" Wall mounted fan Metal Body	10		P/No	
4.8	Supply & Installation of Exhaust fan	3		P/No	
5	CABLES			17110	
	Supply, Laying, testing and commissioning of PVC/LT insulated 1.1KV grade Armored conductor cables of following sizes clamping on the wall as per the site condition.				-
5.1	3.5C x 70 Sqmm. Al. Ar. Cable(E.B.Main to Panel)	20		P/Mtr	
5.2	3.5C x 25 Sqmm. Al. Ar. Cable	25		P/Mtr	
6	END TERMINATION				7.00
	Supply & terminating the ends of cables of following sizes using seimens type single compression cable glands, crimping type Aluminum/Copper sockets of required size, gland earthing clips complete.		-		
6.1	3.5C x 70 Sqmm. Al. Ar. Cable	2		P/No	***************************************
	3.5C x 25 Sqmm. Al. Ar. Cable/ 4 Run 6Sqmm		THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	F/NU	
		2		P/No	र्वेष्ठ्यन वैक

SI. No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
7	EARTHING				
7.1	Supply, installation, testing and commissioning of 2.5Mts long 40mm dia 'B' class GI earth electrode with 600 x 600 x 3mm copper plate, funnel clamps bus etc including excavation refilling with sand/charcoal/ salt combinations complete as required including heavy duty cast iron cover and all associated civil works like construction of chamber and rough plastering etc as required.	1		P/No	
7.2	Supply, installation, testing and commissioning of 2.5Mts long 40mm dia 'B' class GI earth electrode with funnel clamps bus etc including excavation refilling with sand/ charcoal/ salt combinations complete as required including heavy duty cast iron cover and all associated civil works like construction of chamber and rough plastering etc as required.	1		P/No	,,,
7.3	Supply, laying of 16Sqmm PVC FRLS copper wire in suitable PVC conduit with all accessories as required.	70		P/Mtr	
7.4	Supply, laying of 8 SWG bare copper wire	80		P/Mtr	
8	Supply and installation of occupational sensor as per location including with 2 runs of 2.5 sqmm copper wire / with all installation complete.	3		1No	
117	TOTAL (EXCLUDIN	G GST)			v

Place: Date:



	SCHEDULE OF QUANTI	TIES				
BRANCH-DATA CABLING WORK						
SI.No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)	
1	VOICE AND NETWORK				280 300 45 7 200 20 7	
1	Supply and laying of 0.5mm two pair copper telephone cable in an existing conduit, etc.,	150		P/Mtr	11	
1.2	Supply and fixing of RJ11 telephone jack with front plate for all workstations.	4		P/No		
1.3	Supply and fixing of 10 pairs-krone connector in a MS powder coated enclosure with all associated accessories.	1		P/No	-	
1.4	Supply and laying of 0.5mm Ten pair copper telephone cable in an existing conduit, etc.,	50		P/Mtr	STATE OF THE STATE	
1.5	Supply and laying of E CAT6 Network cable in the In PVC Conduit	200	U.	P/Mtr		
1.6	Supply and fixing of RJ45 Network socket with front plate and base box for computer workstations.	12		P/No		
1.7	Supply and fixing of 3 feet patch cord	12		P/No		
1.8	supply and fixing of 7 patch cord	12	ii	P/No	s v	
1.9	supply and fixing of 24 port jack panel	1		P/No		
1.10	Supply and fixing of wall mountable Rack 9U with power adaptor etc.,	1		P/No	, ,	
	TOTAL (EXCLUDING	G GST)				

Place:

Date:



	SCHEDULE OF QUANTIT	IES			
	AIR CONDITIONING WORK - I	BRANCH			
Sl.No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
1	Supplying, installation, testing and commissioning of 5 -Star rated Hi-wall split invertor type air conditioner of 2.00 TR capacity (Carrier Make) with On Off Timer along with wireless remote controller including providing and laying the standard length of 3m copper, electrical and 25mm dia cPVC drain piping including Initial refrigerant charge suitable for 10 Mtrs distance between IDU and ODU along with drilling the holes and packing and making good the damaged surfaces good comprising of the following i) Indoor unit consisting of evaporator coil, (Copper Make) blower fan with motor, filters, insulated drain pan etc ii) Outdoor unit consisting of hermatically sealed Rotary Compressor to operate on 230 V, Single Phase, 50 Hz AC Supply, Anti Corrosive Coated Condensor Coil (Copper Make) with fan and motor, interconnecting refrigeration piping, starters/controls/cutouts/relays etc., mounted inside a powder coated sheet metal cabinet duly treated for corrosion protection. including control cable conncetion between IDU to ODU including stands The rate shall be inclusive of MS stands as per vendor specifications to mount the out door units.				
		4		1No	
2	Supplying, installation, testing and commissioning of 5 -Star rated Hi-wall split air conditioner of 1.00 TR capacity (Blue Star Make) with On Off Timer along with wireless remote controller including providing and laying the standard length of 3m copper, electrical and 25mm dia cPVC drain piping including Initial refrigerant charge suitable for 10 Mtrs distance between IDU and ODU along with drilling the holes and packing and making good the damaged surfaces good comprising of the following				
×	i) Indoor unit consisting of evaporator coil, (Copper Make) blower fan with motor, filters, insulated drain pan etc				

Sl.No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
ä	ii) Outdoor unit consisting of hermatically sealed Rotary Compressor to operate on 230 V, Single Phase, 50 Hz AC Supply, Anti Corrosive Coated Condensor Coil (Copper Make) with fan and motor, interconnecting refrigeration piping, starters/controls/cutouts/relays etc., mounted inside a powder coated sheet metal cabinet duly treated for corrosion protection including control cable conncetion between IDU to ODU including stands The rate shall be inclusive of MS stands as per vendor specifications to mount the out door units.				
		1		1No	
3	Charges for providing additional copper pipes (one circuit) for the above split units with necessary insulation and with adequate pvc insulated copper wire from indoor to outdoor units concealed and taken through beyond the standard 4m length.	75		Rmt	
4	Charges for providing additional 25mm dia CPVC drain pipe concealed / surface mounted and taken through wall/ partition beyond the standard 4m length for the above spiit units.	90	,	Rmt	
5	Supply, installation, testing and commissioning of wall mounting 4 KVA stabilzers (V- Guard make) for 1/1.5Tr Hi-Wall Split Air Conditioning units with input voltage range of 170-270 Volts and output 220 +/- 10% as required	1		Each	
6	Supply, installation, testing and commissioning of wall mounting 5 KVA stabilzers (V- Guard make) for 1/1.5Tr Hi-Wall Split Air Conditioning units with input voltage range of 170-270 Volts and output 220 +/- 10% as required	4		Each	
7	Providing and fixing standard powder coated support brackets for the above split / cassette units including fasteners and other accessories as required	5	g.	Each	-
-	Total (Excluding GST)			Lacii	

D	la	0	0	
	ıa	C	C	•

Date:



	SCHEDULE OF QUANTITIES				
SI.	ATM -ELECTRICAL WORK			Per	Amount
No	Description of work	Qty	Rate	Unit	(Rs.)
1	LIGHTING AND POWER WIRING				
1.1	Supply, wiring, testing and commissioning of Light points with 3R 1.5Sqmm, PVC insulated FRLS copper wire in a PVC conduit for P/N/E along with Modular 6A one way switch with molded front plate GI anodized enclosure and other associated accessories as required as per the site conditions, etc				1
a)	One light controlled by One switch.	1		P/Pt.	
b)	Two light controlled by One switch.	2		P/Pt.	
С	Switch board plug print	1		P/Pt.	
d	Exhaust fan Point	1		P/Pt.	
1.2	Supply, laying, testing and commissioning of 3R of 2.5Sqmm PVC insulated FRLS PVC copper wire in as required at site in 2mm thick PVC conduit for lighting mains		N eg		
		25		P/Mtr	
1.3	Supply, laying, testing and commissioning of 3R of 2.5Sqmm PVC insulated FRLS PVC copper wire in as required at site in 2mm thick PVC conduit for UPS socket. Not more than 2 UPS Point to be connected to one circuit, etc.,	25		P/Mtr	
1.4	Supply, laying, testing and commissioning of 3 runs of 2.5Sqmm PVC insulated FRLS PVC copper wire in 2mm thick PVC conduit as required at site for Raw power sockets. Not more than 4work station point to be connected to one circuit.		8		
		22		P/Mtr	
1.5	Supply, laying, testing and commissioning of 2 runs of 4Sqmm. And 1 run PVC insulated FRLS multistrand copper wire in PVC conduits as required at site for AC power.	20		P/Mts	
1.6	Supply, laying, testing and commissioning of 4 runs of 6 Sqmm and 1 run of 2.5 sqmm wire PVC insulated FRLS multistrand copper wire in 2mm thick PVC conduit as required at site for UPS/Lighting Main	20	-	P/Mts	
1.7	Supply, laying, testing and commissioning of 2 runs of 6 Sqmmand 1 run of 2.5 Sqmm wire PVC insulated FRLS multistrand copper wire in 2mm thick PVC conduit as required at site for Raw power sockets. Not more than 4work station point to be connected to one circuit.			,	
		20		P/Mrs.	म हैं क

SI. No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
2	POWER PLUGS AND SOCKETS				
2.1	Supply and fixing of 1 nos 16 A switch controled 1 nos 16 /6 A socket with switch modular with molded front plate with PVC enclosure and other accessories associated chasing embedding rough plastering as required as per the conditions.		8:		
-		2		P/No	
3	DISTRIBUTION BOARDS			-	
3.1	Supply, erection, testing and commissioning of Three phase 8 WAY, SPN MCBDB double door type, IP 42 powder coated for UPS with 63A DP MCB – 1No as INCOMER 10A SP MCB – 6 Nos. as OUTGOING Including all interconnections & accessories etc	1		P/Set	
3.2	Supply, erection, testing and commissioning of 63A DP MCB with	1		1/361	
5.2	Double door enclosure for UPS input/ Output control.	2		D/	
3.3	Supply & Installation of 32A Metal Clad Socket with top in a	2		P/no	***************************************
5.5	specified company manufactured box with suitable rating MCB for connecting A/C points	2		P/No	
4	LIGHTING FITTINGS			1/110	
	Supply & fixing of the following light fittings with all accessories, tubes, ballast's, suspension wires from ceiling, false ceiling, anchor fasteners, chains, bolts, nuts etc.,				
4.1	Supply & Installation of 1 x 15 watts LED light fitting with fixture (Wipro or Philips)	4		P/No	r r
4.2	Supply and installation of 1 x 22 - 4'-0" LED light fitting.	1		P/No	
4.3	Supply & Installation of Exhaust fan	1		P/No	
	Installation				
5	CABLES				
-	Supply, Laying, testing and commissioning of PVC/LT insulated 1.1KV grade Armored conductor cables of following sizes clamping on the wall as per the site condition.	-	e e		e
5.1	3.5C x 25 Sqmm. Al. Ar. Cable	8		P/Mtr	
6	END TERMINATION				
iš.	Supply & terminating the ends of cables of following sizes using seimens type single compression cable glands, crimping type Aluminum/Copper sockets of required size, gland earthing clips complete.				s
6.1	3.5C x 25 Sqmm. Al. Ar. Cable/ 4 Run 6Sqmm				
s ×					
		2		P/No	क्ष्यम् बक

SI. No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
7	EARTHING				
7.1	Supply, installation, testing and commissioning of 2.5Mts long 40mm dia 'B' class GI earth electrode with 600 x 600 x 3mm copper plate, funnel clamps bus etc including excavation refilling with sand/charcoal/ salt combinations complete as required including heavy duty cast iron cover and all associated civil works like construction of chamber and rough plastering etc as required.				
7.3	Supply, laying of 16Sqmm PVC FRLS copper wire in suitable PVC	1		P/No	
/.5	conduit with all accessories as required.	15		P/Mtr	-
7.4	Supply, laying of 8 SWG bare copper wire	15		P/Mtr	
	ATM TOTAL (Excluding GST)				

Place:	P	la	C	e	:
--------	---	----	---	---	---

Date:



	SCHEDULE FO QANTITIES				
	AIR CONDITIONING WORK -ATM				
Sl.No	Description of work	Qty	Rate	Per Unit	Amount (Rs.)
1	Supplying, installation, testing and commissioning of 5 -Star rated Hi-wall split airconditioner of 1.00 TR capacity (Blue Star Make) with On Off Timer along with wireless remote controller including providing and laying the standard length of 3m copper, electrical and 25mm dia cPVC drain piping including Initial refrigerant charge suitable for 10 Mtrs distance between IDU and ODU along with drilling the holes and packing and making good the damaged surfaces good comprising of the following				
	i) Indoor unit consisting of evaporator coil, (Copper Make) blower fan with motor, filters, insulated drain pan etc				
	ii) Outdoor unit consisting of hermatically sealed Rotary Compressor to operate on 230 V, Single Phase, 50 Hz AC Supply, Anti Corrosive Coated Condensor Coil (Copper Make) with fan and motor, interconnecting refrigeration piping, starters/controls/cutouts/relays etc., mounted inside		T.		
	a powder coated sheet metal cabinet duly treated for corrosion protection.including control cable conncetion between IDU to ODU including stands. The rate shall be inclusive of MS stands as per vendor specifications to mount the out door units.	2	1	1No	·
2	Charges for providing additional 25mm dia CPVC drain pipe concealed / surface mounted and taken through wall/partition beyond the standard 4m length for the above split units.	30		Rmt	,
3	Supply, installation, testing and commissioning of wall mounting 4 KVA stabilzers (V-Guard make) for 1/1.5Tr Hi-Wall Split Air Conditioning units with input voltage range				
	of 170-270 Volts and output 220 +/- 10% as required	2		Each	
4	S & I Timer Switch with Contactor (For AC)-25/32 A	1		P/No	
5	Providing and fixing standard powder coated support brackets for the above split / cassette units including fasteners and other accessories as required	2	=	Each	у.
	Total (Excluding GST)		1	Laci	

Place:

Date:



LIST OF APPROVED MAKE

	Description of materials	Approved Makes /Models	Make offered by contractor
1	LT POWER DISTRIBUTION PANELS	CPRI Approved panel builder	
2	APFCR PANEL	CPRI Approved panel builder	
3	CABLES ISI MARK, 1100V (GRADE FR), XLPE	ORBIT/POLYCAB/KEI/ Finolex	
4	WIRES: 1100V/660V GRADE FR /FRLS	ORBIT/POLYCAB/KEI/ Finolex	
5	G.I.CONDUITS ISI MARK	BEC, AKG	
6	PVC CONDUITS & ACCESSORIES	SETH /SUPER TUBE /PRECISION	
7	MODULAR switch and accessories	ROMA/LEGRAND/crabtree	
8	DISTRIBUTION BOARDS,	LEGRAND / ABB/C&S	r ,
9	ACB / MCCB / MCB/ELCB/RCCB/RCBO	LEGRAND / ABB/C&S	
10	LED Light FITTINGS & Fans	PHILIPS,CROMPTON, HAVELLS, ORIENT	
11	CABLE GLANDS & LUGS	BRACO, DOWELS. Or equivallent	
12	INDUSTRIALSOCKETS	LEGRAND, MENNEKES,ABB,	1
13	CONTACTORS	LEGRAND / ABB/C&S	
15	C.T (Current Transformer)	INDCOIL, MECO, NEWTEK	
16	CAPACITOR	SUBODHAN, L&T., EQUIVALENT	
17	ALUMINIUM RACEWAYS	JINDAL, INDAL.	
18	MANUAL CHANGE OVER SWITCH	LEGRAND / ABB/C&S / HAVELLS	
19	RACEWAYS / CABLE TRAYS	PROFAB/LEGRAND or equivallent	
20	MEASURING INSTRUMENT	SCHNEIDER/L&T, EMCO, or Eq	
21	SPD (SURGE PROTECTION DEVICE)	LEGRAND,ABB, Vertiv	
22	EARTHING / EARTH PITS	ASHLOK / OBO OR EQUIVALENT (Chemical Type Only)	
	TELEPHONE cable		
1	2 /5/10/20 50 pair cables	ORBIT/POLYCAB/KEI	,
2	Krone connector	KRONE or equivallent	
3	Telephone socket	D link/anchor roma/crabtree / POLYCAB	रहे वें के

SL.NO	Description of materials	Approved Makes /Models	Make offered by contractor
	DATA CABLE and ACCESOORIES		
1	CAT 6/ CAT 6A cables	D Link/legrand/ Cisco make / POLYCAB	
2	I/O RJ 45 ,and all accessories	D Link/legrand/ Cisco make / POLYCAB	
3	JACK panel , patch cords	D Link/legrand/ Cisco make / POLYCAB	
4	Wifi materials	D Link/legrand/ Cisco make / POLYCAB	
5	Net work switches	D Link/legrand/ Cisco make / POLYCAB	
6	RACK	Schneider /VALVO/LEGRAND	





