



CENTRAL UNIVERSITY OF SOUTH BIHAR

(Notice Inviting Quotation)

INDEX FOR TENDER FORM

Tender Notice No.	:	CUSB/PSD/EE/T/13/2020-21,Dated 22/12/2020
Name of work	:	Tender Bid Document “For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory ” at School Of Social Science Building of Central University Of South Bihar.
Earnest Money Deposit	:	Earnest money of ₹ 25,000/- . in shape of D.D drawn In favour of Central University of South Bihar, payable at Gaya from any schedule Bank.
Tender fee	:	₹ 500/- (in shape of DD)
Pre bid Meeting	:	29/12/2020 at 11:00 A.M. at CUSB, Panchanpur, Gaya.
Last date and time for Receipt of Bids	:	13/01/2021 upto 4:00 P.M.
Date and Time of opening of Technical Bids	:	14/01/2021 at 2:30 P.M.
Place of opening of Bids	:	CUSB, Panchanpur, Gaya

CENTRAL UNIVERSTIY OF SOUTH BIHAR

Name of work: Tender Bid Document **“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory”** at Central University of South Bihar, Panchanpur, Gaya, Bihar at Central University of South Bihar, Panchanpur, Gaya (Bihar).

I undertake to abide by the terms and conditions as stipulated in the detail tender call notice and conditions of contract.

Signature of the contractor

For Office Use only

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|----|-----------------------------------|---|--------------------------|
| 1. | Total Nos. Corrections | : | |
| 2. | Total Nos. of Overwriting | : | |
| 3. | Total Nos. of Pages | : | |
| 4. | Earnest Money Deposit in shape of | : | |
| 5. | Copy of S.T.C.C | : | Furnished/Not Furnished |
| 6. | Copy of I.T.C.C./PAN | : | Furnished/ Not Furnished |
| 7. | Any other enclosure | : | |

Registrar
Central University of South Bihar

CENTRAL UNIVERSITY OF SOUTH BIHAR
NOTICE INVITING BIDS

The Central University of South Bihar, invites bids **“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory”** in Permanent Campus of Central University of South Bihar, Panchanpur, Gaya from eligible contractors/ authorized representatives who have an experience of the similar work. The last date and time of submission of tender document is **13/01/2021 upto 4:00 P.M..** The detailed tender document is available on the University website www.cusb.ac.in. The cost of tender form is **₹ 500/- (₹ Five Hundred only)** and can be purchased by payment of the cost either in cash or in the form of DD, from Central University of South Bihar. The tender forms downloaded from University website must be accompanied by DD of **₹ 500/- (₹ Five Hundred only)** in favour of Central University of South Bihar payable at Gaya.

Registrar

CENTRAL UNIVERSITY OF SOUTH BIHAR

“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory” at Central University of South Bihar, Panchanpur, Gaya (Bihar).

TECHNICAL BID

Note : This is to be kept in Envelope “B” sealed and it should be written on envelop that
Tender for **“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory”** at Central University of South Bihar”

CENTRAL UNIVERSITY OF SOUTH BIHAR
NOTICE INVITING BIDS/ TENDER NOTICE

The Central University of South Bihar, invites bids for **“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory”** at Central University of South Bihar, Panchanpur, Gaya (Bihar) from manufactures/authorized representatives who have experience of similar work. Details are as follows:-

Sl. No.	Description of Work	Estimated Cost	Earnest Money to Deposited	Last date & time of submission of Tender document	Time & date of opening of tender	Completion Time
1.	“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory” at Central University of South Bihar, Panchanpur, Gaya, Bihar	₹ 4,72,808	₹ 25,000/-	13/01/2021 Upto 4:00 P.M	14/01/2021 at 2:30 P.M.	40 Days.

2. The tender must be accompanied by a Demand draft for the amount mentioned as above in Indian Rupees only on a schedule bank drawn in favour of Central University of South Bihar, payable at Gaya as Earnest Money for the above tender.

Eligibility Criteria:

1. At least three (03) similar works overall of ₹ 3,00,000/- value in a year.
3. Sealed Tender Documents duly signed on all pages shall be delivered to the Central University of South Bihar, SH-7, Gaya Panchanpur Road, Post-Fatehpur, Post-Tekari,

District-Gaya, Bihar, Pin- 824236 by Registered Post/ Speed Post to reach on or before **13/01/2021 upto 4:00 PM**. The technical Bids will be opened on **14/01/2021 at 2:30 PM** at Central University of South Bihar, Gaya Campus in presence of the tenderers or their authorized representatives. The financial Bid of the agencies who qualify the technical bid evaluation process will be opened after prior information to successful bidder in Technical bid. Bidders to follow notices on University's website. The date of opening of the Financial Bids of those tenders fulfilling the requirements will be announced on a separate date. If the office happens to be closed on the date of receipt of the bids or Opening of bids as specified, the bids will be received and opened on the next day of opening of the office at the same time and venue.

4. Central University of South Bihar, does not binds itself to accept the lowest rate and reserves the right to accept or reject all or any part of tender without assigning any reasons and claim on account of above shall not be entertained..
5. The tenderer shall quote for the Services/material/Equipment to be supplied as per detailed specifications as given in the Tender document.

6. ENVELOPE 'A' (Earnest Money & Tender cost)

The tender shall be accompanied by the cost of the tender document **₹ 500/- (Indian Rupees Five Hundred only)** in Form of Demand Draft failing which the tender will not be accepted. Tender must also be accompanied by earnest money of **₹ 25,000/-** in the form of Demand Draft in favour of Central University of South Bihar, payable at Gaya issued by any Nationalized Bank. The Demand Draft towards Earnest Money & cost of tender document will be placed in Sealed Envelope 'A'.

7. ENVELOPE 'B' (Technical bid Document)

- (i) This Envelope shall contain the Prequalification documents pertaining to financial eligibility and Physical completion of Work. Copy of Work Order/ Purchase Order with completion certificate is mandatory for similar works executed in past 3 financial year. on each page.
- (ii) The credential of tenderer to be included for those, who authorized by the manufacturers, suppliers of the material/equipment for execution of this work if applicable and including the list of similar work executed in India with location, cost of work and period during which those works are executed.

(iii) Checklist for envelope 'B':

- a. Copy of registration of GST No.
- b. Copy of Income Tax Permanent Account Number & Income Tax assessment order.
- c. Copy of Work Order and successful completion certificate of meeting minimum eligibility criteria (Financial & Physical)
- d. All pages of Tender document including various sections and Annexures, except priced bid.

8. ENVELOPE 'C' (Financial Bid Document)

- 9.1 The Envelop 'C' shall contain the tender documents and information related to the schedule of quantities quoting the rates per Unit/Price etc. of the various items or works pertaining to the financial bid on the financial bid document, issued by Central University of South Bihar, along with the tender document.
- 9.2 All columns shall be duly filled in with specific information on the cost involved.
- 9.3 The rates for the items shall be quoted in Indian Rupees.

***NOTE: -** The Tenderer should clearly mention in all the three envelopes (i.e. A, B and C) clear description of the items for which the offer is being quoted. If any discrepancy is observed the offer would be treated as non- responsive and would be rejected outright.

10. Envelope-‘A’ (Earnest Money & Tender Cost), Envelope-‘B’ (Technical Bid Document), and Envelope-‘C’ (Financial Bid Document), shall be in separate sealed envelopes, each marked as “Envelope- ‘A’, Envelope-B and ‘Envelope-C’”. All the three envelopes shall be submitted in another sealed envelope super scribing there on **“For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory”**. The envelope should be addressed to Registrar, Central University of South, India. The envelope marked ‘Envelop-B’ of only those tenderers shall be opened, whose earnest money & tender cost are placed in the ‘Envelop ‘A’ and found to be in order.

11. The Tender Evaluation Committee will evaluate the Technical Bids and is fully authorized to reject any tender on its satisfaction that the requirements are not met for the complete needs of the Central University of South Bihar with regard to the Committee. The decision of the Tender Evaluation Committee shall be final. Only those tenders Technical Birds cleared by the Tender Evaluation Committee shall be eligible for their Price Bid to be opened. Those successful tenderers for whom the Envelop-C (Price Bid) is to be opened shall be duly intimated.

12. The amount of earnest money, in the case of successful tenderer, shall be refunded on successful completion of work. However E.M.D of unsuccessful

tenderers will be refunded after the award of the contract to the successful tenderer.

13. Bidders are required to quote all items in the Bill of Quantity or Schedule of quantity. In event of non-compliance of above shall lead to disqualification in subject tender.
14. The tenderer is required to obtain all required statutory permissions for work by their own and shall be bound to do necessary liaison with Government Authorities as and when required.
15. All Civil, Mechanical, Plumbing work essential for successful completion of work etc are in the scope of the bidders and no additional payment shall be made towards any breakage, chipping, restoration, lift, lead, carriage, storage, loading, unloading, packaging etc.
16. The tender shall exist for 90 days from opening of the technical bid.

Signature of the Tenderer

Date:

AFFIDAVIT

(On Non-judicial stamp paper)

Tender Notice No.: CUSB/PSD/EE/T/13/2020-21, dated 22/12/2020

Name of Work: “For Electrical Fitting, wiring, testing & commissioning of Electrical items to set up Pharmacy Department Laboratory” at Central University of South Bihar, Panchanpur, Gaya, Bihar

1. I, the undersigned, do hereby certify that all the statements made in the required Attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/S -----
_____ have abandoned any work nor any contract Awarded to us for such works have been rescinded, during last three years prior to the date of this bid.
3. The undersigned hereby authorize and request any bank, person, firm or Corporation to furnish pertinent information deemed necessary and requested by the Central University of South Bihar, to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Central University of South Bihar.
5. The undersigned understand the terms of tender and hereby undertake to deploy only competent personals who have valid license to work under scope and also undertake to comply with all Labour laws related to wages, PF, ESI & compensation etc. Full responsibility towards above compliance lies with us.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

Date

CLAUSES OF CONTRACT

Clause: 1 Works to be carried out:

The work to be carried out under the contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works.

Clause: 2 Sufficiency of Tender:

The Tenderer shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of this tender for the works and of the rates and prices quoted in the Schedule of Quantity (Bill of Quantity), which rates and prices shall except as otherwise provided/cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

Clause: 3 Time for Performances:

Contractual completion time is 40 Days from the issuance of LOA/PO.

Clause: 4 Registrar, CENTRAL UNIVERSITY OF SOUTH BIHAR shall:

- 4.1 Being a party of this Contract, sign the agreement within seven days of issue of Acceptance Letter.
- 4.2 Hand-over the site to the Tenderer within two days of signing of the agreement and or issuance of LOA.
- 4.3 Allow the commencement of work by the tender immediately after issuance of LOA.
- 4.4 Date of start of work shall be considered as 7 days after issuance of LOA. The above period shall be considered as mobilization period by vendor.

Clause: 5 Performance Guarantee:

- 5.1 The contractor shall submit an irrevocable **PERFORMANCE BANK GUARANTEE of Rs.35,000/- (₹Thirty Thousand Five Hundred only)** of the tendered amount calculated in term, in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and without prejudice to any

other provision in the contract) within 15 days of issue of letter of intent. This period can be further extended by the Vice Chancellor upto a maximum period of 7 days on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction. **This Performance Bank Guarantee will remain valid & deposited with Central University of South Bihar till the defect liability period plus sixty days of the work is over.** This guarantee shall be in the form of Government Security or fixed deposit receipts/Guarantee Bonds issued by National Bank, in accordance with and as per prescribed format. In case a fixed deposit receipt of any Bank is furnished by the contractor to the as part of the Performance Bank Guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Central University of South Bihar, to make good the deficit.

- 5.2** A letter of intent shall be issued in the first instance informing the successful tenderer of the decision of the competent authority to accept his tender and the award letter shall be issued only after the Performance Bank Guarantee in the prescribed form is received. In case of failure by the contractor to furnish the Performance Bank Guarantee within the specified period, the Central University of South Bihar, shall without prejudice to any right or remedy available in law, be at liberty to forfeit the earnest money absolutely.
- 5.3** The Performance Bank Guarantee should be as per s.no 5.1. In case the time for contract period gets enlarged, the contractor shall get the validity of Performance Bank Guarantee extended to cover such enlarged time for contract period. After recording of the work completion certificate for by the competent authority, the Performance Bank Guarantee shall be returned to the contractor without any interest.
- 5.4** In the event of the contract being determined or rescinded under provision of any of the clause/condition of the agreement, the Performance Bank Guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Central University of South Bihar.

Clause: 6 Work to be executed in accordance with specifications as quoted in the tender

- 6.1** The tenderer shall execute the whole and every part of work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict

accordance with approved specifications.

- 6.2** All work shall be under the directions of Registrar, Central University of South Bihar or Officer In-charge, Central University of South Bihar who shall oversee /supervise and approve the work at various stages.

Clause: 7 Discrepancies and Adjustment of Errors : The several documents forming the contract are to be taken as mutually explanatory to one another.

- 7.1** In the case of discrepancy on any specification, the following order of preference shall be observed:-

- i. Description of Schedule of Quantities/ Bill of Quantity.
- ii. Technical Specifications.
- iii. Scope of work & Special Condition, if any.
- iv. Drawings
- v. Sound Engineering practices in the industry.
- vi. Central Electricity act's provisions.
- vii. Any prevailing State Government Guideline.

- 7.2** If there are varying or conflicting provisions made in any one document forming part of the contract, the Vice Chancellor, Central University of South Bihar, shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the Tenderer.

- 7.3** Any error in description, quantity or rate in Schedule of Quantities/ Bill of Quantity or any omission there from shall not vitiate the contract or release the Tenderer from the execution of the whole or any part of the works comprised therein according to the Supply, fixing, testing & commissioning specifications or from any of his obligations under contract.

- 7.4** If there is any omission in furnishing the rate for any of the items, it will be construed that the rate for that item has been distributed among the other items of the tender. Therefore, the Tenderer is liable to execute that particular item of work at free of cost.

- 7.5** Any deviation unavoidable during execution of work shall attract suitable price adjustment and proper justification is required before execution within 5% of tender amount.

Clause: 8 Price:

- 8.1** Rates: The rates tendered by the Tenderer shall be for completed items of covering all materials, labour, carriage, maintenance, consumables, royalties, fees, rents, CIF at site

by Sea/Air freight, octroi, levies, insurance charges license fees, renewal fees and demurrage, wastage, tools, plant, equipment, transport, temporary construction, overhead charges and profits as well as general liabilities, obligations and risks etc. arising out of the conditions of the contract etc complete. Tenderers are requested to quote their price for all items mentioned in Schedule of Quantity (SOQ). Partial quote shall be summarily rejected and no claim shall be entertained even if tenderer stands L1 in part items of Schedule of Quantity (SOQ).

The prices will also include cost of incidental expenses, liaison fee and other out of pocket expenses essential for routine and periodic inspection by Governmental officials as per mandatory guidelines and frequency defined. However, any payment towards fees paid to any Governmental offices on account of inspection, testing shall be reimbursed by University to vendor on production of proof of payment made to the Government bodies. No extra charges, whatsoever, consequent on any misunderstanding or otherwise shall be allowed.

Clause: 09 Quality Control:

- 10.1** Vendor shall ensure quality control parameters essential as per the Central Electrical Act & State Government's Acts in context to scope of work corrected up to latest slip, prevailing State Government's directives and changes/ revision to the same time to time without any additional cost.

Clause: 10 Payment Terms:

- 11.1.1 100 % payment against item as per SOQ/ BOQ shall be released on completion of work followed by statutory deduction like TDS etc.
- 11.1.2 In case, it comes to notice at any stage that work being done is defective or the workmanship is defective or any defects develop during the Currency of contract, the Central University of South Bihar shall be entitled to withhold the Security Deposit/PBG without prejudice to other contractual resource.

Clause: 11 Defect Liability Period : 1 Year

Clause - 12 Breach of Contract

- 13.1** The Central University of South Bihar while executing a contract with the Supplier/work agency/ vendor shall have the full right to see that the terms & conditions, specifications, quality, workmanship of the works assigned to the Supplier Agency or the party to the contract is fully complied and are satisfactory/ acceptable before payments are released.

- 13.2** If at any stage it is seen that the quality of material being used or service being provided is below the standard accepted/ specified in the agreement or any deviation from the approved specification of the product or the laid down norms are not being followed/ there is contravention to the terms and conditions of agreement, the same will be considered as breach of contract and in such case, the Central University of South Bihar will have full right to stop further payment even if due, until and unless the discrepancies/ objections are set right or replaced/ clarified by the Supplier/ Service.

Clause 14: Force Majeure

- 14.1** The term "Force Majeure" shall mean acts of God or any act not within the control of parties, such as lightening and unprecedented floods, earthquake, hurricane and wars, revolts, riots, fire, sabotage. Upon the occurrence of such cause and upon its termination, the party, alleging that it has been rendered unable, as aforesaid, shall notify the other party in writing immediately but not later than seven days of the alleged beginning as well as ending thereof, giving full particulars and satisfactory evidence in support of its claim.
- .
- 14.2** Should the delay caused by force majeure exceed two months, the parties to the contract shall hold discussions to resolve the situation mutually.

Clause 16: Dispute Redressal System:-

- 16.1** In case of any dispute the matter will be referred to Vice Chancellor and his decision will be final.
- 16.2** Either party, not satisfied with the decision of the Vice Chancellor, may opt for Arbitration under Arbitration & Reconciliation Act 1996. Appointment of sole Arbitrator will be done by Vice Chancellor on the request of the aggrieved party within sixty days from the date of request. Arbitrator will be of the rank of serving/retired Chief Engineer/Superintending Engineer.
- 16.3** The supplier will deposit charge @ 7.5 % of the claim with the University & the same will be released only after the settlement of dispute.
- 16.4** Expenses on account of arbitration will be shared equally by both parties which there exists any condition in writing.

Clause 17: Jurisdiction and applicable law

Indian Laws will govern this contract and any application in respect of any proceedings under this contract will be to the jurisdiction of the courts of Gaya, Bihar only and also for

any application to entertain any suit in connection with this contract. Provided that nothing herein contained shall operate to the prejudice of any rights/recourses of the Central University of South Bihar regarding blacklisting.

Clause 18: Cancellations of contract Notwithstanding anything herein contained :

- 18.1 The Central University of South Bihar shall have the right to cancel the contract and be entitled to the restitution of all moneys paid by the Central University of South Bihar to the Tenderer under this contract alongwith interest at 18% per annum and the damages as assessed by the Central University of South Bihar in its sole discretion in case the Tenderer fails to perform the obligations strictly within the time stipulated herein or otherwise fails to discharge the duties and obligations undertaken by the Tenderer. The Supply and Installation can be got completed at the risk and cost of the Tenderer and the delivered materials or part thereof may be utilized subject to cost adjustment for the same as determined by the Central University of South Bihar.
- 18.2 Provided that in case of any failure or delay on the part of the parties as aforesaid arising out of the force majeure such other party shall not be entitled to rescind or revoke this contract.
- 18.3 The Central University of South Bihar reserves the right to cancel the contract in the event of omission/misrepresentation of any material fact.

Clause 19:

Any accident caused because of any activities performed by bidder at any point of time shall be the total responsibility of the bidder and University shall not be responsible for any claim etc.

TECHNICAL SPECIFICATION

WIRING

1. GENERAL

Technical specifications in this section cover the Internal Wiring Installations comprising of : Wiring for convenience socket outlet in surface/concealed conduit.

2. STANDARDS AND CODES.

Latest up to date Indian Standard (IS) and Code of practice will apply to the equipment and the work covered by the scope of this contract. In addition, the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended UpToDate shall also apply.

3.0 LT CABLES

3.1 GENERAL

LT Cables shall be supplied, inspected, laid, tested and commissioned in accordance with specifications, relevant Indian Standards Specifications, and cable manufacturer's instructions. The cable shall be delivered at site in original drums with manufacturer's name clearly written on the drums. The recommendations of the cable manufacturer with regard to jointing and sealing be strictly followed.

3.2 MATERIAL

The L.T. Cables shall be XLPE insulated FRLS aluminium conductor armoured cable, PVC inner sheathed, overall PVC sheathed in conformity to latest technical specification and as per latest IS code.

3.3 INSPECTION.

All cables shall be inspected at site and checked for any damage during transit.

3.4 JOINTS IN CABLES

The Contractor shall take care to see that the cables received at site are apportioned to various locations in such a manner as to ensure maximum utilization and avoiding of cable joints. This apportioning shall be got approved from Engineer-In-Charge before the cables are cut to lengths.

4.0 TESTING OF CABLES

4.1 Prior to installation of cables, following tests shall be carried out. Insulation test between phases, phase & neutral, phase & earth for each length of cable.

- a) Before laying
- b) After laying

- c) After jointing
- 4.2 On completion of cable laying work, the following tests shall be conducted in the presence of the Engineer-in-Charge.
- a) Insulation Resistance Test (Sectional and overall).
 - b) Continuity Resistance Test.
 - c) Earth Continuity Test.
- 4.3 All tests shall be carried out in accordance with relevant Indian Standard code of practice and Indian Electricity Rules. The contractor shall provide necessary instruments, equipment's and labour for conducting the above tests & shall bear all expenses of conducting such tests without any extra charge.

5. CONDUITS.

5.1. **MS CONDUITS.** Wiring shall be carried out in surface/concealed conduits. The MS conduits conform to Latest and shall be ISI embossed. The conduits shall be heavy gauge (minimum 2 mm wall Thickness) and the interiors of the conduits shall be free from all obstructions. All joints in conduits shall be tightening properly with socket. Damage conduits/fittings shall not be used. Cut ends of conduits shall not have sharp edges.

5.2. **BENDS.** As far as possible, the conduit system shall be so laid out that it shall obviate use of tees, elbows and sharp bends. No length of conduit shall have more than the equivalent of two quarter bends from inlet to outlet.

5.3 CONDUIT ACCESSORIES

5.3.1 **STANDARD ACCESSORIES.** The conduit wiring system shall be completed in all respects, including their accessories. Bends, couplers, Dip junction Boxes etc. shall be solid or inspection type as required, in surface type or works. The accessories shall conform in all respects to the relevant IS. Samples shall be got approved by Executive Engineer (Electrical) before use.

5.3.2. **FABRICATED ACCESSORIES.** Wherever required, outlet boxes of required sizes shall be fabricated from 1.6 mm thick MS sheets which shall be fabricated from minimum 3 mm thick sheets. The outlet boxes shall be of approved quality, finish and manufacture. Suitable means of fixing connectors etc., if required, shall be provided in the boxes. The boxes shall be protected from rust by zinc phosphate primer process. Boxes shall be finished with minimum 2 coats of enamel paint of approved colour. A screwed brass stud shall be provided in all boxes as earthing terminal.

- 5.3. **WIRES.** Wiring shall be carried out with FRLS insulated 660/1100-volt grade unsheathed single core wires with electrolytic annealed standard copper (unless otherwise stated) conductors conforming to latest IS Code. All wire rolls shall be ISI marked. All wires shall bear manufacturer's label and shall be brought to site in new and original packages. Manufacturer's certificate, certifying that wires brought to site are of their manufacture shall be furnished as required.

6. LAYING OF CONDUITS

- Conduits shall be laid on surface/concealed on walls and ceilings as required.

- Same rate shall apply for surface/concealed Conduiting in this contract.
- Stranded copper conductor insulated wire of size as per schedule of quantities shall be provided in entire conducting for loop earthing.

7. SURFACE/CONCEALED CONDUITING

Wherever so desired, conduit shall be laid in surface over finished concrete and/or plastered brickwork. Suitable GI/MS Hook of approved make and finish shall be fixed to the finished Structural surface along the conduit route at intervals not exceeding 600 mm. Holes in concrete or brick work for fixing the saddles shall be made neatly by electric drills using masonry drill bits. Conduits shall be fixed on the saddles by means of good quality heavy duty MS clamps screwed to the saddles by counter sunk screws. Neat appearance and good workmanship of surface conduiting work is of particular importance. The entire conduit work shall be in absolute line and plumb. The MS conduit should be painted with primer initially and then with two coats of approved make colour before laying the conduit.

8.1 FIXING OF CONDUIT FITTINGS AND ACCESSORIES

For surface/concealed Conduiting work, the fittings and accessories shall be completely embedded on finished wall/ceiling surface in a workman like manner. Loop earthing wire shall be connected to a screwed earth stead inside outlet boxes to make an effective contact with the mental body.

8.2 CLEANING OF CONDUIT RUNS

The entire conduit system including outlets and boxes shall be thoroughly cleaned after completion of erection and before drawing in of cables.

8.3 PROTECTION AGAINST DAMPNESS.

8.4 All outlets in conduit system shall be properly drain and ventilated to minimize chances of condensation/sweating.

8.5 EXPANSION JOINTS.

When crossing through expansion joints in buildings, the conduit sections across the joint shall be through approved quality heavy duty mental flexible conduits of the same size as the rigid conduit. The expansion joint crossing shall be done as approved by Engineer-in-Charge.

8.6 LOOP EARTHING.

Loop earthing shall be provided by means of insulated stranded copper conductor wires of sizes as per Schedule of Quantity laid along with wiring inside conduits for all wiring outlets. Earthing terminals shall be provided inside all switch boxes, outlet boxes and draw boxes etc.

8. LAYING AND DRAWING OF WIRES.

8.1. BUNCHING OF WIRES

Wires carrying current shall be so bunched in conduits that the outgoing and return wires are drawn into the same conduit. Wires originating from two different phases shall not be run in the same conduit.

8.2. DRAWING OF WIRES.

The drawing of wires shall be done with due regard to the following precautions: No wire shall be drawn into any conduit, until all work of any nature, that may cause injury to wire is completed. Burrs in cut conduits shall be smoothen before erection of conduits. Care shall be taken in pulling the wires so that no damage occurs to the insulation of the wire. Approved type bushes shall be provided at conduit

terminations. Before the wires are drawn into the conduits, conduits shall be thoroughly cleaned of moisture, dust, dirt or any other obstruction by forcing compressed air through the conduits if necessary. While drawing insulated wires into the conduits, care shall be taken to avoid scratches and kinks which cause breakage of conductors..

8.3 LOAD BALANCING.

The contractor shall plan the load balancing of circuits in 3 phase installation and get the same approved by the Engineer-in-Charge before commencement of the work.

8.4 COLOUR CODE OF CONDUCTORS.

Colour code shall be maintained for the entire wiring installation – red, yellow, blue for three phases, blank for neutral and green for earth.

9. PERFORMANCE.

Should the above tests not comply with the limits and requirements as above the contractor shall rectify the faults until the required results are obtained. The contractor shall be responsible for providing the necessary instruments and subsidiary earths for carrying out the tests. The above tests are to be carried out by the contractor without any extra charge.

10. MINIATURE CIRCUIT BREAKERS.

The MCB's shall be of the completely moulded design suitable for operation at 240/415 Volts 50 Hz system. The MCB's shall have a rupturing capacity of 10 KA at 0.5 pf. The MCB's shall have inverse time delayed thermal overload and instantaneous magnetic short circuit protection. The MCB time current characteristic shall coordinate with XLPE cable characteristic. Type test certificates from independent authorities shall be submitted before the execution of work.

LIST OF APPROVED MAKES **(For work covered under this Contract)**

Sl. No.	Description of Items	Make
1	Wires & Cables	Polycab /KEI/ Havells Approved make
2	Modular Switches, Sockets and Cover plates	Legrand/CrabTree/L&T
3	Surface mounted LEDs	Bajaj/Havells/ Crompton/Siska or Any ISI Approved make
4	Ceiling fans and Wall mounted fans	Bajaj/Havells/ Crompton
5	DBs, TPN, MCBS	Legrand/ABB/L&T/Schnieder Electric

SOQ

Schedule Of Quantity (Approximate)

Tender Notice No. CUSB/PSD/EE/T/13/2020-21, Dt. 22/12/2020

Name of the Work: For Supply, Installation, Testing and Commissioning of Electrical Items for Modification of pharmacy lab

Department of Pharmacy(A)						
S.N.	DSR	Item Description	Unit	Qty	Rate	Amount
1	1.14	Wiring for circuit/submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit/GI Flexible as required.				
2	1.143	2x4 sqm + 1x4 sqm earth wire	mtr.	165		
3	1.14.2	2x2.5 sqm + 1x2.5 sqm earth wire	mtr.	200		
4	1.27	Supplying & fixing following size/modules, GI Box alongwith modular base & cover plate for modular switch in recess etc as required				
5	1.27.4	3 modular (100 mmx 75 mm)	Each	25		
6	1.27.3	6 modular (200 mmx 75 mm)	Each	20		
7	1.24	Supplying & fixing following Switch/Socket on the existing modular plate and switch box including connections but excluding modular plate etc as required.	Each			
8		6 Amp. Switch	Each	40		
9		3 pin, 6 Amp. Socket	Each	40		
10		16 Amp. Switch	Each	25		
11		16 Amp. Socket	Each	25		
Total Price inclusive of all taxes						

		Department Of Pharmacology Lab (B)				
S.N.	DSR	Item Description	Unit	Qty	Rate	Amount
1	1.7	Wirig for circuit/submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit/GI Flexible as required.				
2		2x4 sqm + 1 sqm earth wire	mtr.	160		
3		4x16 sqm + 2x6 sqm earth wire	mtr.	82		
4		2x2.5 + 1x2.5 sqm	mtr.	200		
5	1.24	Supplying & fixing following modular switch/socket on the existing modular plate and with box including connections but excluding modular plate etc as required.	Each			
6		6 Amp. Switch	Each	40		
7		6 Amp. Socket	Each	40		
8		16 Amp. Switch	Each	25		
9		16 Amp. Socket	Each	25		
10	1.27	Supplying & fixing following size/modules, GI box alongwith modular base and cover plate for modular switch in recess etc as required.	Each			
11		6 Modular cover box	Each	20		
12		3 Modular cover box	Each	25		

13	2.4	Only fixing following way, horizontal type 3 phase and neutral, sheet steel, MCB distribution board, 415 V on surface/recess, complete, with tinned copper bus bar, neutral bus bar, earth box, din bar, interconnections, powder coated included earthing etc as required (but without MCB/RCCB/insulator)				
14		8 (way (4+24), Double door	Each	1		
15	2.13	Supplying & fixing following rating, four pole 415 V insulators in the existing MCB DB complete with.				
16		63 Amp.	Each	1		
17	2.14	Supplying & fixing 63 amp double pole, 240 V, RCCB having sensitivity current 30 MA in the existing MCB DB complete with connections, testing & commissioning etc.	Each	2		
18	2.1	Supplying & fixing 5 to 32 amp rating, 240/415 V, 10 KA 'C' curve MCB for inductive load in the existing MCB DB complete with connections, testing & commissioning etc.	Each			
19		16 Amp. SP MCB	Each	12		
Total Price inclusive of all taxes						

Department of Pharmacy(C)

S.N.	DSR	Item Description	Unit	Qty	Rate	Amount	Recommended Make
1	1.7	Wiring for circuit/submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit/GI Flexible as required.					Finolex, Polycab,
2		2x4 sqm + 1 sqm earth wire	mtr.	100			
3		2x16, +1x6 sqm	mtr.	60			
4		4x16 sqm + 2x6 sqm earth wire	mtr.	32			
5		2x2.5 + 1x2.5 sqm	mtr.	70			

6	2.1	Supplying & fixing 5 to 32 amp rating, 240/415 V, 10 KA 'C' curve MCB for inductive load in the existing MCB DB complete with connections, testing & commissioning etc.					Legrand/L&T/Equivalent
7		SP MCB 25 Amp.	Nos	12			
8		Supplying & fixing 63 amp double pole, 240 V, RCCB having sensitivity current 30 MA in the existing MCB DB complete with connections, testing & commissioning etc.	Nos	3			Legrand/L&T/Equivalent
9	2.13	Supplying & fixing following rating, four pole 415 V insulators in the existing MCB DB complete with.					Legrand/L&T/Equivalent
10		63 Amp. TPN	Nos	1			
11		Supplying & fixing following Switch/Socket on the existing modular plate & Switch box including connections but excluding modular plate etc as required.					
12		16 Amp. Socket	Nos	15			
13		16 Amp. Switch	Nos	15			
14		6 Amp. Socket	Nos	26			
15		6 Amp. Switch	Nos	26			
16	1.27	Supplying & fixing following size/Modules, GI Box alongwith modular base & cover plate for modular switch in recess etc as required.					
17		3 Modular cover box and front plate	Nos	15			
18		6 Modular cover box and front plate	Nos	13			
19		Supplying & fixing of 20 Amp Switch, 20 amp Socket alongwith suitable size of GI Box and modular base & cover plate in recess (Either 3 Module or 4 Module depending on the size of 20 amp switch & 20 amp)	Nos	5			

20	NS	Only fixing following way, horizontal type 3 phase/1 phase & neutral, sheet steel, MCB distribution board, 415/240 V on surface/recess, complete, with tinned copper bus bar, neutral bus bar, earth box, din bar, interconnections, powder coated including earthing etc as required (but without MCB/RCCB/insulator)	Nos				
21		6 Way TPN DB	Nos	1			
22		8 Way SPN DB	Nos	1			
23		Supplying & fixing 63 amp double pole, 240 V, RCCB having sensitivity current 30 MA in the existing MCB DB complete with connections, testing & commissioning etc.	Nos	1			
24		Supplying & fixing 5 to 32 amp rating, 240/415 V, 10 KA 'C' curve MCB for inductive load in the existing MCB DB complete with connections, testing & commissioning etc.					
25		25 amp SP MCB		6			
26		Supplying & fixing of 100 mm width X 50 mm depth X 1.6 mm thickness PVC perforated trunking with all connectors, nuts	mtr.	7			
		Total Price inclusive of all taxes					

Abstract Of SOQ

S.No	Lab	Price Quoted
1.	Department of Pharmacy(A)	
2.	Department Of Pharmacology Lab (B)	
3.	Department of Pharmacy(C)	
	Grand Total Inclusive of all Taxes	

Note: Lowest bidder will be decided only by summation of all labs in Abstract sheet. Individual lab rate is not consider for lowest bidder

Seal & Signature of Tenderer