# JAMIA HAMDARD

HAMDARD NAGAR, NEW DELHI - 110062 Telephone: 011-26059688-5374

# TENDER DOCUMENT

# **FOR**

Establishing Laboratory for B.Sc Clinical Research Lab, FYUP at 3<sup>rd</sup> floor SCLS Building, Jamia Hamdard.

Submitted by:		
Name of the Agency:		
Address:		
Contact No:		
Email ID		

# **JAMIA HAMDARD**

# HAMDARD NAGAR, NEW DELHI-110062

# NOTICE INVITING TENDER

Ref No. JH/E&M(Civil)./CTCR LAB//24/04

Jamia Hamdard, New Delhi invites sealed items rates Tenders in two envelope system (Technical & Financial Bid) from reputed contractors registered/worked with CPWD, MES, Railway, Department of Telecommunication, Universities, Higher Education Institute and other central/State Govt. Departments OR working agency at Jamia Hamdard for the below mentioned work. Last date of submission of the Tender is 22/02/2024 up to 3.00 PM. The bidders also advised to visit the site to satisfy themselves before submitting the Bids. Bidders not fulfilling the Eligibility Criteria will be rejected. Eligibility Criteria is mentioned in Tender clause 2.2.

NAME OF WORK: Establishing Laboratory for B.Sc Clinical Research

Lab, FYUP at 3<sup>rd</sup> floor SCLS Building, Jamia

Date: 08/02/2024

Hamdard.

ESTIMATED COST: Rs. 13,03,929.00 i/c GST

EARNEST MONEY: Rs 26,000.00

TENDER COST: Rs. 2500.00 only (Non-Refundable)

TIME PERIOD: 60 days Pre-Bid date: 16/02/2024

The Tender dully filled should be dropped in the Tender Box kept in Purchase Section on or before 22/02/2024 **upto 3.00 PM** along with demand draft of earnest money & Tender fee in sealed envelope clearly specifying the name of work. The D.Ds shall be in favor of Jamia Hamdard payable at New Delhi. The technical bid shall be opened on same day at 22/02/2024 3.30 PM by the tender committee in presence of available interested parties. Date & time for opening of Financial bid will be intimated later on to technically qualified bidders. Jamia Hamdard reserves the right to reject any or all tenders or split the tenders without assigning any reason.

#### 1. SCOPE OFWORK:

- Supply and Installation of Laboratory Workbenches/Storage units including granite worktops and other supporting structures/hardware's based on the specified Make List & DCL unloading the consignment and transporting it from the place of storage to the installation site.
- Supply & S
- Supply & S
- Supply & Damp; Installation of service structures where specified and setting in place the reagent type shelves.
- Removal of debris, dirt and rubbish accumulated as a result of installation/commissioning of the laboratory furniture and accessories and leaving the premises broom clean and orderly.

#### 2. ELIGIBILITY CRITIERIA

- a. Bidders must have Registered contractor at Govt./ Semi Govt. /State Govt./Departments/Educational institutes or Working/worked Agencies at Jamia Hamdard/worked with Govt./Semi Govt/State Govt departments/Higher Educational Institution. Bidders have to submit the related copies of the documents and other registration certificates, Work orders and completion certificates. The original will have to be produced when asked for verification.
- **b.** Bidders should have qualified and experienced In-House Architect for providing SHOP drawing (including drawing CAD copy) and Architectural designs & drawings etc.
- c. Contractors should have executed similar nature of works of at least one contract of Rs. 10.43 Lacs (80% value of estimated cost of works) or two contracts of similar nature of works of Rs. 7.820 Lacs (60% value of estimated cost of works) or three contacts of similar natures of works of Rs. 5.21 Lacs (40% value of estimated cost of works) in the last 3 years in any institutional Buildings, Universities/departments and produce credentials in support thereof. The bidders have to submit the copies of work completion certificates, related work orders along with their BOQs.
- **d.** The OEM Should be the member of SEFA (Scientific Equipment and Furniture Association) at least from last 7 years consecutive years to get the assurance on the shelf life of the product.
- e. Average annual financial turn over on said work should be at least Rs. 8 Lakhs each during the immediate last 3 consecutive financial year with certification from practicing Chartered Accountant
- **f.** Bankers certificate for credit worthiness not less than Rs. 10 Lakhs
- **g.** The Bidders must have current PAN, GST Registration Certificates.

# Note: - Quotation shall also be liable for rejection on any of the following grounds:

- a. Quotation submitted late.
- b. Quotation containing remarks uncalled for.
- c. Conditional Quotations.
- d. Quotation not submitted on prescribed Performa.
- e. Telegraphic Quotations.
- f. Quotation submitted without EMD and Tender fee. EMD & Tender fee must be submitted in form of the Demand Draft (DDs).

# 2.1 Documents to be submitted along with Technical Bids

- Copies of valid registration Certificate as mentioned in Eligibility criteria
- Complete list of machinery and equipment and details of Technical Manpoweralong with supporting staff and In-House Design capability duly signed and sealed on company's letter head.
- Copies of completion and Performance Certificates (duly attested) for similarscope of works issued by the officer of the client/Deptt. of the rank of Executive Engineer/equivalent or the Head of the Institution will have to be furnished along with the application. The completion certificate must clearly indicate the following:
- The date of completion of work with cost of completed work with letters of successful completion. Nature and scope of work, Time period of completion (attach client's list).
- The firms are advised to enclose attested copies of valid PAN, PF, ESI,GSTN.
- Earnest Money Deposit, **Rs. 26000.00** in the form of DD in favor of Jamia Hamdard.
- Tender Cost, Rs. **2500.00** (non-refundable) in the form of DD in favor of Jamia Hamdard.
- Company's financial performance documents (Audited balance sheet, and profit and loss statement.
- Copies of work orders for similar nature of work as specified above in last 5 years.
- Entire tender document duly signed & stamped by the bidder.
- Copies of IT return acknowledgement for last three years ending
- All documents submitted by the bidder should be self-attested along with stamp.

# Submission of Bids

- 1. Submission of Tender: Tenders should be submitted in two Parts i.e. "Technical bid" (Part-A) and "Price bid" (Part-B) in two separate sealed envelopes. Both the parts should be further put in a single sealed envelope super-scribing NIT No. & name of work, due date for opening, bidder's name & address. The tender duly filled in may be sent to above mentioned address either by post or hand delivered in the tender box kept in the Purchase Section. It should not be handed over to any employee of the Jamia Hamdard. No tender shall be accepted later than the time schedule specified in NIT. Any clarifications/amendments/corrigenda etc., to NIT before last date of submission of bid will only be available on our website: <a href="www.jamiahamdard.edu">www.jamiahamdard.edu</a>. Therefore, bidders are advised to keep visiting our website.
- **a.** Technical Bid (Part-A) shall contain all documents as stated in clause (2.1)

## b. Price Bid (Part-B):

In this bid, the bidder is required to quote his item rates in the BOQ attached in accordance with the scope of work, terms & conditions & technical specifications enclosed. The rates/price quoted by contractor should be all inclusive i.e. should include all taxes such as GST etc, all material cost, labour, services, plant/machinery/tools & tackles, ladders & scaffolding required for work, freight, Insurance, transport/cartage of materials/labour and all other expenses not specifically mentioned but reasonably implied. Nothing over and above these rates shall be payable to contractor. Further nothing extra in rates will be considered for any variations in tender quantities or due to any site difficulties. It ismandatory for bidder to quote all items rate as asked for in the BOQ/ PRICE schedule. Failure in not filling some item rates will lead to rejection of tender. The bidders should quote unconditional rates, neatly written without any overwriting and all pages should be duly signed & stamped.

Jamia Hamdard reserves the rights to increase or decrease the quantum of work during the execution of work and to accept/reject full/part proposals without assigning any reason thereof.

#### 3. SUBMISSION OF BIDS

Quotation should be submitted in sealed envelopes super-scribing NIT No. & name of work, due date for opening, bidder's name & address. The Quotations duly filled should be dropped in the Tender box kept in the Purchase Section. It should not be handed over to any employee of the Jamia Hamdard. No Quotation shall be accepted later than the time schedule specified in the NIT. Any clarifications/amendments/corrigenda etc., to NIT before last date of submission of bid will only be available on our website: <a href="www.jamiahamdard.edu">www.jamiahamdard.edu</a>. Therefore, bidders are advised to keep visiting our web site. In this bid, the bidder shall submit the following:

- a. Covering letter on Company's Letterhead
- b. Quotation fee (Non-refundable)
- c. Earnest Money Deposit (to be deposit by every bidder without any exemption).
- d. Copies of PAN, GST and necessary registration Certificate.
- e. Entire NII duly signed & stamped by the bidder.
- f. BOQ is cited on Annexure "X"

**g.** Copies of work completion certificates, work orders along with BOQs of the similar nature of works as per eligibility criteria mention above.

# h. Entire NIT and documents duly signed & stamped by bidder of his authorized representative/person.

i. Bidders are required to quote his item rates in the attached BOQ (Annexure 'X') in accordance with the scope of works, terms & conditions & technical specifications enclosed. The rates/price quoted by contractor should be all inclusive i.e. GST & include (all material cost, labour, services, plant/machinery/tools & tackles, ladders & scaffolding required for work, freight, Insurance, Octroi, Govt. duties & levies, Sales Tax transport/cartage of materials/labour and all other expenses not specifically mentioned but reasonably implied. Nothing over and above these rates shall be payable to contractor. Further nothing extra in rates will be considered for any variations in Quotation quantities or due to any site difficulties. It is mandatory for bidder to quote all items rate as asked for in the BOQ/ PRICE schedule. Failure in not filling some item rates will lead to rejection of Quotation. The bidders should quote unconditional rates, neatly written without any overwriting and all pages should be duly signed & stamped

# (04) GENERAL TERMS & CONDITIONS

- I. Earnest Money: An earnest money of Rs. 26,000.00 has to be enclosed along with the Bid. The EMD shall only be in the form of Bank Draft in favour of "Jamia Hamdard" payable "New Delhi". No Cheques/Cash shall be accepted as EMD. The refund of EMD to the unsuccessful bidder shall be made within 15 days from the date of issue of work order to the successful bidder. The EMD of the successful lowest bidder (L1) shall be held back and will be released after completion of the works and site clearance.
- II. Validity of Quotations: Quotations shall be valid for our acceptance without any change in rates and NIT conditions for a period of 60 days from the date of opening of price bid.
- **Escalation**: No escalation over and above items rates quoted by the bidder shall be paid during the execution of contract.
- IV. Completion time: The time shall be the essence of this contract and entire work as titled above is to be completed in all respects within a period of 60 Days from the date of receipt of the work order. Any delay in completing the work for reasons attributable to the Contractor is liable for liquidated damages condition of NIT. Under the force-majeure conditions or delay due to reasons beyond control of the contractor, Jamia Hamdard may grant suitable time extension without penalty for which the contractor has to request along with the justification/ reasons well in advance to Jamia Hamdard for approval without any prejudice to price escalation. No time extension request shall be considered after the expiry of completion period/contract except any genuine reason. The decision of the Executive Engineer regarding Time extension will be final and binding on the contractor.
- V. **The rates** shall be inclusive of GST & FOR site (Fright, duties etc.)Jamia Hamdard welfare Relief Fund will be deducted @ 0.25% of

- the amount of total bill claimed.
- VI. **Site Conditions**: Contractor shall acquaint himself fully with the site conditions and the working environment of Jamia Hamdard before quoting his rates. No Compensation on account of any site difficulties will be entertained, at a later date, after award of the work.
- VII. Before Quotation, the Contractor shall visit and examine the site and satisfy himself as to the site conditions, the correct dimensions of the work and facilities. In case of any doubt, may be clarified from the office of the Engineer In-charge.
- **VIII. Defect Liability period:** Defect liability period shall be twelve (12) months from the date of completion of work. Any defect arising in this period will be rectified by him at his own cost.
- **IX. Security deposit:** A security deposit equal to 05% of the value of work will be deducted from Contractor's bill and shall be refunded after the completion of defect liability period of 12 months after ensuring successful performance of the system executed by the contractor. The defect liability period will be counted from the actual date of the completion of the work.
  - X. Correspondence: All the correspondence in respect of quotation/award of work shall be made to Executive Engineer.
- XI. **Terms of Payment**: The payment shall be made on submission of the bills in proper format by the contractor after due certification by the engineer responsible for supervision of the work. Contractor can submit full and final bill after completion of work for claiming payment based on actual quantities of items of work executed as per BOQ and Engineer's instructions.
  - XII. Labour Laws: The contractor will abide by all the rules and regulations related to labour laws, accident, workmen compensation act, workmen insurance etc. This will be the sole responsibility of the contractor. Jamia Hamdard will not be a party at any stage in any of the disputes relating to the above. In case, Jamia Hamdard has to bear any expenditure due to non-conformance of the above provisions by the contractor, the same will be recovered from contractor's bills.
  - XIII. Rules governing the Contractor's employees working in the Jamia Hamdard Premises: The contractor's employees working inside the Jamia Hamdard campus will abide by the Centre's rules & regulations for works inside the campus. Any damage to the Jamia Hamdard property due to mishandling,
  - XIV. carelessness on the contractor's or his workmen's part will be recoverable from the contractor's bills.
  - XV. **Liquidated damages:** In case the work is delayed beyond the specified completion period for reasons attributable to the contractor, deductions on account of Liquidated damages @ 0.5% of the contract value per week will be deducted subject to a maximum of 5% of the contract value.
    - However, during the delayed period, Jamia Hamdard also reserves the right to get some portion of work done by any other contractor at the risk and cost of the existing contractor and amount to that effect along with 10% overhead charges will be deductible from his bills/dues.
- XVI. Extra or substituted item: If any extra or substituted item appears in

the work, contractor shall submit its rate analysis supported with documents which shall be approved by Engineering Department. Analysis of rates will be based on DSR document of CPWD or based on market rates analysis for determining item rate and pay to contractor accordingly.

- XVII. Contractor should depute a qualified supervisor dedicated for this work, who will coordinate the works from contractor's side and interact with the Jamia Hamdard Engineers, responsible for supervision of work, on regular basis.
- XVIII. Contractor will take due permission for entry of all his workmen in Jamia Hamdard. No unauthorized person will be allowed to work inside.
- XIX. As the work will have to be carried out in building and area in use, the contractor shall ensure:
  - a. That the normal functioning of Jamia Hamdard activity is not affected as far as possible and may be executed beyond office hours.
  - b. That the work is carried out in an orderly manner without disturbing setup in the premises.
  - c. The Contractor shall ensure that his staff is qualified and experienced for their part of work. The staff should behave in a courteous manner. The Contractor shall be responsible for their staff's conduct.
- XX. The contractor will arrange all necessary materials, tools, equipment, access ladders & scaffolding, measuring instruments and working consumables etc. needed for execution of the works. Safe custody of all such material will be contractor's sole responsibility. No extra charges will be paid for the same. Watch and ward of all material till the system is taken over by Jamia Hamdard shall be the sole responsibility of the contractor and pilferage etc. shall be entirely to his account.
- XXI. During execution of work, Engineer can make minor changes in the scope of work as per site conditions or other reasons. Contractor will have no extra claim in his rates for the same.
- XXII. If during the execution of works, any damage is caused to Jamia Hamdard property by contractor's/contractors' workers, contractor will duly make good the loss. Jamia Hamdard has the right to make suitable deduction from contractor's bills along with penalty, if contractor fails to make good the loss.
- XXIII. During execution of work, the contractor/contractors should follow all standard norms of safety measures/precautions as per relevant IS codes and CPWD specifications to avoid accidents/damages to man, machines and buildings, at his own cost. Contractor will have his own arrangement to escort the labour to the nearest hospital for treatment in case any injury happens to any worker during execution of work.
  - XXIV. Manpower deployed by the contractor at our site for carrying out contract works is strictly prohibited being associated with any other works on the campus.
  - XXV. No material belonging to the contractor whether consumable or non-consumable

should be brought inside the Jamia Hamdard campus without proper entry at the Main Gate nor any material should be taken out without proper gate pass issued by the authorized representatives of the Centre.

- XXVI. During execution of the work, contractor should dispose of waste material on regular basis and should keep the area of work properly cordoned off and neat and clean as far as possible. After completion of work, contractor should clear the site completely of all unwanted and junk material before submitting his final bill.
- XXVII. Quotations once submitted will remain with the Jamia Hamdard and will not be returned to the bidders.
- XXVIII. Quotations not complying with any of the provisions stated in this Quotations document are liable to be rejected. Jamia Hamdard also reserves the right to accept or reject any or all the Quotations without assigning any reason and does not bind him-self to accept the lowest bidder.
- XXIX. The agency will also have to ensure that no one at site violate the safety/preventive measures of COVID-19 guidelines issued by the Government of India such as face mask, social distancing, cleaning of hands etc.

#### TECHNICAL SPECIFICATIONS FOR LABORATORY FURNITURE

The dimensions, thickness values mentioned in the specifications should meet and tolerance is allowed to fit with respect to actual work space. The dimensions mentioned are minimum and can be better than this. The items should be complete in all respect for a functional unit(s).

#### LABORATORY FURNITURE

#### **Quality Assurance**

- The steel laboratory furniture manufacturer shall provide work tops and casework all manufactured & proper with proper packing & proper should take the full responsibility of the entire Scope of Works as specified in the tender.
- General Performance: Furniture shall meet the performance requirements and supplier should provide genuine certificate from SEFA approved testing laboratory of SEFA 8M (or better) guidelines and should be the member of SEFA from last 3 years. Fume Hood shall meet the performance requirements & supplier should provide genuine certificate as EN 14175/ASHRAE 110 Certified
- Membership Certificate: The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like ASHRAE. Such professionals should have a valid membership and bidder/parent company should provide valid proof of genuine certificate
- Bidder/Parent Company should provide genuine latest certificates for ISO 9001-2008, ISO 14001-2004, BS
- OSHAS 18001-2007,ISO 13485 (For Design, Development, Manufacturing,

Supply and servicing) Submittals

- Manufacturer& designes Data: Submit installation instructions for each type of casework.
- Samples: Samples if called for will be reviewed for color, texture, and pattern only.
- Shop Drawings Submit shop drawings for furniture assemblies showing the required details. Products/Manufacturers
- The selected manufacturer must warrant for a period of one-year starting (date of acceptance or occupancy, whichever comes first that all products sold under the contract referenced above shall be free from defects in material and workmanship.
- Jamia Hamdard will retain the above samples of the successful manufacturer or owner to insure that material delivered to jobsite conforms in every respect to the samples submitted if need be.

#### TECHNICAL SPECIFICATION

# A) Laboratory Workstations in Plinth Mounted

General Description: Laboratory furniture must be tested as per SEFA-8M standards in SEFA Approved labs with latest 2016 Guidelines published by SEFA. All modular construction & EFA amp; design must be made of mainly skin passed/zero spangle G.I. (Galvanized Iron) powder-coated (8 tank process, powder coating 60 to 80 microns) after manufacturing and fabrication (No pre-coated sheet should be used). GI sheet steel shall be prime grade 12, 14, 16, 18 and 20 gauge U.S. Standard; roller leveled, and shall be treated at the mill to be free of scale, ragged edges, deep scratches or other injurious effects. The design should have provision for reconfiguration for change in layout using simple tooling and should provide independent access to the utilities installed, electrical panel & Eamp; instrumentation panel. It should be removable without removing other panels. All GI sheet components are of superior brand like TATA Steel / Posco/ Jindal/ SAIL and are fabricated by precision

shearing, levelling, and notching, piercing, machines to achieve consolidated dimensions within close tolerances under the strict quality checks and assembled with the aid of fixtures. Exposed welding marks should be polished smooth to improve aesthetic. Corner intersections of vertical and horizontal members should in the same plane with bolted joints and should be suitably aligned. Laboratory Work Stations are available in 2 heights of 900mm (Standing purpose) and 750mm (Sitting purpose) in metallic construction designed to have completely flexible modular system. Each module will have independent base frame. Necessary leg space are provided between two modules wherever required. Rear portion of the leg space are covered with the enclosure panel. Work table should consist of; a) SEFA-8 standards heavy duty under cabinets & drawers: SEFA-8 standards heavy duty under module, comprising of one drawer - one shutter and adjustable height shelf, all drawers and only shutters. Cabinet shutter will be in double skin construction and shall be provided with heavy duty, knuckle and

barrel type SS hinges and positive catch arrangement. Shutter and drawer handles are also provided with recessed designed in Aluminum const. with epoxy powder coating. The under module shall be fabricated out of heavy gauge special grade Galvanized Iron sheet in weldless construction and shall be finished with pure epoxy coating for extra ordinary corrosion resistance. Material of construction powder-coated (8 tank process, powder coating 60 to 80 microns) after manufacturing and fabrication (No pre-coated sheet should be used). GI sheet steel shall be prime grade 12, 14, 16, 18 and 20 gauge U.S. Standard; roller leveled, and shall be treated at the mill to be free of scale, ragged edges, deep scratches or other injurious effects.

- ➤ Detailed specifications and thickness of GI items in each module: Cabinet end panels; min. 1.0 mm thick GI Sheet Cabinet rear panel and top panel; min. 1.0 mm thick GI sheet
- Cabinet base skid; 1.0 mm thick GI Sheet Cabinet drawers; 1.0 mm thick GI Sheet
- ➤ Cabinet shutters & Camp; drawer front panels; double skin const, min 0.8 mm thick GI sheet-Cabinet main frame structure and drawer slide rails, 1 mm or higher thickness GI Sheet Each cabinet shall have self-standing type base skid plinth in GI const.
- List of approved makes of materials:
- o Epoxy Powder : Vijay Coat/ Jotun/ Akzonobel
- Float Glass: Modi Guard / Saint Gobain/ Asahi

O Hinges: Hafele/ Hettich/ Kich/ Blum

Locks: Hettich/ Ebco/ Godrej

o Telescopic Channel: Hafele/ Hettich/ Godrej

#### **Surface Treatment:**

- a) The complete GI material of cabinet is pretreated (degreased, Zinc phosphated) and epoxypowder coated for better corrosion resistance. The thickness of powder coat shall not be less than 60-80 microns, conforming to relevant BIS code, which accordingly passes the test of Salt Spray for 1000 hours and having the scratch hardness of 3 kgs.
- b) Worktops: Work top in  $18 \pm 1$  mm thick Black Granite construction
- c) Reagent Rack: Worktop mounted reagent rack in single or double tier design. Vertical member and main bracket of the reagent rack are in GI construction and epoxy coated for excellent corrosion resistance. Rack platform are in wire reinforced glass or Phenolic Resin construction. Shelf height are adjustable as per requirement.
- d) **ELECTRICAL TRUNKING**: Electrical trunking is made up of 0.8mm thick GI-MS Sheet or SS 304 (as per schedule of quantities), The complete M.S. material of cabinet should be pre-treated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat should be 45-50 microns, which passes the test of Salt Spray for 1000 hours. It should have a high temperature withstanding capacity with

excellent electrical insulation properties. The rear portion of above accessories which is in contact with live metal should be made from thermo set material which will not melt on heating. Electrical Fittings: 5/15 Amp Sockets and switches complete with internal wiring. Fittings are mounted on electrical trunk. Electrical Trunking are 1 mm thick GI with epoxy powder coating.

**Electrical Sockets** – Make: Legrand/ Anchor/ Northwest/ Norisys/ Schneider.

- e) Sink: In one-piece, molded Sink in Polypropylene (PP) construction. (Make: Premier Polymer/ KL Labs/ Method) Size 600mmLx450mmWx300mmD
- f) Peg Board: Peg Board in Phenolic resin construction /6 mm Acrylic Sheet with 20 Nos. PP Pegs
- g) Three /One Way Water Taps: 3/1-way taps/valves with goosenecks required at the sink tables made of forged brass body with 1/2" BSP male inlet and powder coated. Goosenecks shall have a separate outlet coupling with a female thread securely brazed to the gooseneck for attachment of serrated hose ends, aspirators and other outlet fittings. Rigid goosenecks shall have a male inlet thread and be threaded directly into the faucet body so as to be absolutely rigid. Swing goosenecks shall utilize a TFE packing with an externally adjustable packing nut. Water faucets and valves shall be fully assembled. All taps shall have plastic knob with ISI approved color code. (Make: Premier Polymer/Broen)

# **Construction Detail of 3- or 1-Way Water Taps:**

## 1. Raw Material:

- Brass as per IS: 319 (I) (Machining Grade).
- Brass as per IS: 8737 (Forging Grade).
- Pipe as per IS: 407 (CuZn37).
- Polypropylene Knob.
- All Gasket / 'O' Ring Nitrile Rubber.
- Inlet Connection 1/2" B.S.P.

#### 2. Testing:

- Pneumatic Test at 18 Bars.
- Hydraulic Test at 9 Bars.
- Bursting Test at 36 Bars.
- Working Temperature Range: 0' to 70' Celsius

# 3. Powder Coating:

• Epoxy Fusion Bond

# B) OVER HEAD CABINET

General Specifications: The cabinets should be suitable for mounting on wall. The cabinets shall be fabricated out of Galvanized Iron sheet, powder-coated (8 tank process, powder coating 60 to 80 microns) after manufacturing and fabrication (No pre-coated sheet should be used). GI sheet steel shall be prime grade 12, 14, 16, 18 and 20 gauge U.S. Standard; roller leveled, and shall be treated at the mill to be free of scale, ragged edges, deep scratches or other injurious effects. Cabinets should be provided with 1 adjustable shelf. Proper design, stiffening/ structural members should be provided for strength and rigidity. Front door of the cabinet shall be in twin door design having glass panel with metallic frame in Galvanized Iron construction.

# **General Specification: Construction Detail:**

- End Panel, Top Panel & Bottom Panel: 1.2 mm thick Galvanized Iron Sheet
- Rear Panel: 1.2 mm Galvanized Iron Sheets
- Front door: 5 mm thick glass with metallic frame in GI construction
- Shelf: 1.2 mm thick GI sheet
- Door Supporting frames: 1.6 mm thick GI Sheet
- Door Hinges: Knuckle and Barrel type SS hinges.
- Door handles: SS 304 const.
- Lock: With two keys for doors. Approved Makes Hettich/ Haffle/ Ebco/Godrej

## CHECK LIST: TO BE SUBMITTED ALONG WITH BID

The tenderers are requested to ensure the submission of the essential documents to avoid disqualification of the bid. However, the check list is not exhaustive and the tenderer are requested to go through to NIT & related documents carefully and completely for fulfilments of tenderer requirement.

S.	Enclosures	Submitted
No.		
1.	Cost of tender document	
2.	EMD	
3.	Similar works order and other documents asked	

4.	Signature with stamp in all pages of tender	
	documents.	
5.	Bank account detail	
6.	E-mail address	
7.	Address for communication	
8.	Phone no, Mobile no, Landline no.	

Signature of the Tenderer's with stamp