

राष्ट्रीय प्रौद्योगिकी संस्थान मिजोरम

NATIONAL INSTITUTE OF TECHNOLOGY MIZORAM

(An Institution of National Importance under Ministry of Education, Govt. of India) CHALTLANG, AIZAWL, MIZORAM-796012

Phone/Fax:0389-2391774/0389-2391236

Email:registraroffice@nitmz.ac.in

Date: 16.03.2023

No. NITMZ/D-64/CE/2023/4455

NOTICE INVITING TENDER (NIT)

FOR SUPPLY & INSTALLATION OF EQUIPMENTS IN THE ENVIRONMENTAL ENGINEERING LABORATORY OF THE DEPARTMENT OF CIVIL ENGINEERING (CE)

The Registrar, National Institute of Technology Mizoram invites quotation for Supply & Installation of Equipment in the Environmental Engineering Laboratory of Department of Civil Engineering as per details at **ANNEXURE-V** in **Two Bids** to reach the undersigned on or before **25.03.2023 (2:00PM).**

| Sl.N o. | Items | Qty | EMD(Rs.) in the form | Tender Document Fee(Rs.) |
|------------|--|-----|--|---|
| 1 | For supply & installation of Digital Ph Meter With Glass and Reference Electrode (Complete Set)in the Department of Civil Engineering(CE) at NIT Mizoram, Aizawl | 1 | Rs. 50,000.00 | Rs. 500.00 (Non- refundable) |
| 2 | For supply & installation ofDirect Reading Conductivity Meter with PVV Cell (Complete Set) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | Payment through online mode only | Payment through online mode only |
| 3 | For supply & installation of Hot Air Oven Size 605X455X455, (An ISO 9001:2008 Certified C&E Marked) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 4 | For supply & installation of Muffle Furnace Size 150X150X300, 3.5 KW 1000°C with allAccessories, (An ISO 9001:2008 Certified C&E Marked)in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 5 | For supply & installation of Jar test apparatus in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 6 | For supply & installation of COD Reactor Dual Blockin the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 7 | For supply & installation of Electronic Analytical Balancein the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |

| | For supply & installation of Hot Plate Rectangular | | |
|----|---|---|--|
| 8 | With Energy RegulatorSize-30X45 cm in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 9 | For supply & installation of Ultrapure water purification system (for type 1 quality water), Bio Trace Ultrapure (Grade 1) and pure (Grade 2) water for inorganic trace analysis in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 10 | For supply & installation of Fume Hood, Working Size: W 4 x D 3 x H 4 Ft, MOC: In GI with FRP constructionin the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 11 | For supply & installation of Magnetic Stirrer With Hot Plate (Digital) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 12 | For supply & installation of Digital Nephlo Turbidity meterin the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 3 | |
| 13 | For supply & installation of Auto Clave, Size- 450X600mm, Capacity: 98 Ltr., Vertical Automatic Autoclavein the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 14 | For supply & installation of Micro Proccessor Based Flame Photometer With All Accessories in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 15 | For supply & installation of Digital Colony Counter in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 16 | For supply & installation of Water Bath, Size-300X300X175mm With All Accessories, (An ISO 9001:2008 Certified C&E Marked)in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 17 | For supply & installation of Ultra-Low Temperature Freezer with CO2 Backup System, Ultra-Low Temperature Freezer (-80°C) with 5kva voltage stabilizer in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 18 | For supply & installation of Bod Analysis Package in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 19 | For supply & installation of Weighing Balance, 300 g x 0.1 g in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |

| 20 | For supply & installation of Centrifugein the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
|----|---|---|--|
| 21 | For supply & installation of DO Meterin theDepartment of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 22 | For supply & installation of UV - Visible spectrophotometerin the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 23 | For supply & installation of Kjeldahl Digestion Unit (Digestion unit and Nitrogen Distillation System), Make: Borg Scientific in theDepartment of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 24 | For supply & installation of Atomic Absorption Spectrophotometer, Make: Shimadzu, Model: AA6880 in theDepartment of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 25 | For supply & installation of Rotary Shaker (Heavy Duty)in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |

Tender Form along with other Terms & Conditions can be downloaded from the Institute's Website *www.nitmz.ac.in*. However, the <u>Non-refundable Tender Fees of Rs.500.00 (Rupees Five Hundred only) and refundable EMD amount of Rs. 50,000.00 (Rupees Fifty Thousand only) by Online Payment and Receipt should be submitted along with the Tender Documents, till 25th March, 2023 at the Payment Details given below before 2:00 PM.</u>

NATIONAL INSTITUTE OF TECHNOLOGY MIZORAM ACCOUNT No.: 33755447886 STATE BANK OF INDIA BAWNGKAWN BRANCH, AIZAWL, MIZORAM IFSC:SBIN0007059

Sealed Tenders should be dropped in Tender Box No. 02, Kept in the Administrative Office, NIT Mizoram or submitted at registraroffice@nitmz.ac.in till 25th March, 2023 before 2:00 P.M. Tenders received through Registered Post/Speed Post/Courier before he above referred Date and Timing would be considered.

1. Last Date & Time for Submission : 25.03.2023 (2:00PM) 2. Date/Time for Opening of Technical Bids : 25.03.2023 (3:00PM)

3. Date of notifying the technically qualified Bidders by Email : 25.03.2023 4. Evaluation of Financial bids for technically qualified Bidders : 26.03.2023

VENUE OF BID OPENING: ADMINSITRATIVE BLOCK, NIT MIZORAM, CHALTLANG, AIZAWL

BID INSTRUCTIONS:

01. Quotations will have to be submitted in TWO Bids. The address of the firm submitting the quotation and the Officer to whom the quotation is addressed must appear distinctly on sealed covers. Further, on sealed cover, the following are to be written:

"QUOTATION FOR SUPPLY & INSTALLATION OF EQUIPMENTS IN ENVIRONMENTAL ENGINEERING LABORATORYIN THE DEPARTMENT OF CIVIL ENGINEERING (CE), NIT MIZORAM"

REF. NO.No. NITMZ/D-64/CE/2023/4455 DATE: 16.03.2023

- **O2. Submission of Compliance Certificate:** Duly filled and signed Compliance Certificates (as per formats at **Annexure I (A&B)** are must with the Technical Bid.
- **03. Bid not transferable:** The bid documents are not transferable and the seal and signature of the authorized official of the Firm must appear on all the papers and envelopes submitted.

QUALIFICATION REQUIREMENTS:

- 1) The Bidder should be an Original Equipment Manufacturer (OEM) or an authorized Dealer/Distributor & a Firm of reputation having sufficient expertise and experience in the subject tender with sound warranty / service support capability and authorization from Manufacturer/Distributor.
- 2) The Bidder should have experience of executing at least One Purchase Order of equipments/Machines/IT Products of value of Rupee Fifty Lakhs or Higher within the last 3 Years from any IIT/NITs/Central Government Institutions of North East Region of India.
- 3) The Bidder has to quote for all the items in the above Laboratories, Bidders who do not quote for all the items are subject to be summarily disqualified.

NIT TERMS & CONDITIONS:

1) Rates: Rates quoted in the Price Bid should be on DOOR DELIVERY NIT Mizoram basis,

As per details below:

| Sl. No. | Particulars | Rate |
|---------|--|------|
| 1. | Basic Price (per unit) | |
| | Total | |
| | Taxes (please give break up) | |
| | Grand Total for the item on door delivery at NIT Mizoram | |

Bidders shall indicate their rates in clear/visible figures as well as in words and shall not alter/overwrite/make cutting in the quotation. <u>In case of a mismatch, the rates written in words will prevail</u>.

- **2) Validity of Quotation:** Quoted rates must be valid for **180 days** from the date of quotation.
- **3) Warranty:** The quoted equipment and components must be covered with Warrantee for a minimum period of 1(One) year after satisfactory installation.
- **4) Literature a must**: All the quotations must be supported by the printed technical leaflet/ literature and the specifications mentioned in the quotation must be reflected/supported by such printed technical leaflet/literature. The model and specifications quoted should **invariably be highlighted** in the leaflet/literature for easy reference.
- **5) After Sales Service:** Vendors should clearly state the available nearest after sales service facilities in India, without which their offers will summarily be rejected.
- **6) Dealership Certificate:** Dealers or Agents quoting on behalf of Manufacturer/Distributor must enclose valid Dealership Certificate.

7) Earnest Money Deposit (EMD):

- i) Earnest Money of **Rs. 50,000.00 (Rupees Fifty Thousand only)** in the form of **Online Payment (Receipt) only shall be submitted**. EMD in cash or in the form of Cheque, D.D or in any other form will not be accepted.
- ii) The EMD of the tenderer will be refunded **without any interest** within reasonable time after final decision of the tender, normally **within 1 month** from the date of opening of the tender.
- iii) EMD of the successful bidder will be released on submission of the Performance Bank Guarantee (PBG).
- iv) Request for transfer of any previous deposit such as previous EMD or Security Deposit or payment of any pending bill or transfer towards EMD shall not be entertained.

v) The tenders without EMD will be summarily rejected.

vi) Tenderer shall not be permitted to withdraw his offer or modify the terms and conditions thereof. In case the tenderer fails to observe and comply with the stipulations made herein or backs out after quoting the rates, the aforesaid amount of Earnest Money Deposit will be forfeited.

As per Rule 170 of GFRs 2017, Micro and Small Enterprises (MSEs) and the firms registered with concerned Ministries/Departments are exempted from submission of Bid Security/EMD (if applicable).

- 8) Performance Bank Guarantee (PBG): In case of items with order value of Rupees Five Lakhs only (INR 5,00,000.00) and above, the successful bidder shall furnish an unconditional PBG (as per format at Annexure II) for 3% of the Purchase Order value from a scheduled Bank of India, after receiving the Purchase order. Where the PBG is obtained by a foreign bank, it shall be got confirmed by a Schedule Indian bank and shall be governed by Indian Laws and be subject to the jurisdiction of Hon'ble Gauhati High Court, Aizawl Bench at Aizawl only. The PBG will be kept till the Warranty Period and The PBG shall guarantee that,
- ➤ The Vendor guarantees satisfactory operation of the Equipment & components against poor workmanship, bad quality of materials used, faulty designs and poor performance.
- > The Vendor shall, at his own cost, rectify the defects/replace the items supplied, for defects identified during the period of guarantee.
- ➤ This guarantee shall be operative from the date of installation till 120 days after the warranty period.
- ➤ The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- ➤ The Performance Security shall be denominated in the currency of the contract.
- ➤ Performance Security may be submitted either by the principal or by the Indian agent

9) Delivery:

- ➤ **Time Limit:** Maximum within **30 days/1 month** from the date of issue of the Purchase Order.
- ➤ **Safe Delivery:** All aspects of safe delivery shall be the exclusive responsibility of the Vendor/Supplier. At the destination site, the package will be opened only in the presence of NIT user/representative and vendor's representative. The intact condition of the package and the seal/indicators for not being tempered with shall form the basis for certifying the receipt in good condition.
- ➤ **Insurance:** The supplier is to establish 'All Risk Transit Insurance' coverage till door delivery at NIT Mizoram, Chaltlang, Aizawl, Mizoram 796012.
- **Part Delivery:** Acceptance of part delivery shall be a prerogative of the Institute.
- ➤ **Penalty for delay in Delivery:** The date of delivery should be strictly adhered to otherwise the Registrar, NIT Mizoram reserves the right not to accept delivery in part or full.
- **10) Genuine Pricing**: Vendor is to ensure that quoted price for the particular item is not

more than the price quoted to any other customer in India, particularly to IITs/NITs / Centrally Funded Institutions and other Government Organization.

- **11) Conditional tenders not acceptable:** All the terms and conditions mentioned herein must be strictly adhered to by all the vendors. Conditional tenders shall not be accepted on any ground and shall be summarily rejected. Conditions mentioned in the tender bids submitted by vendors will not be binding on NIT Mizoram.
- **12)GST**:GST will be applicable as per GoI rates applicable from time to time. NIT Mizoram possessed customs duty exemption under DSIR, Ministry of Science and Technology, Government of India which is applicable for the purchase of all R&D activities vide No. TU/V/RG-CDE(1254)/2020 dated 25-01-2021(Copy at **ANNEXURE-VI**).
- **13) Late and delayed tender**: Late and delayed tender will not be considered. In case any unscheduled holiday occurs on the prescribed closing/opening date the next working day shall be the prescribed date of closing/opening.
- **14) Payment**: 100% payment within 30 (thirty) days from date of delivery, Satisfactory installation, acceptance and Training.
- 15) Free Maintenance & Service for 5 Years: An agreement is to be executed between the Institute & the Manufacturer/Distributor/Dealer for providing Free Maintenance & Service for 5 Years after expiry of the Warranty Period of the equipment by the Manufacturer/Distributor/Dealer (Preferably from the Manufacturer) within 30 Days from the day of Complain. The cost of the Spare parts required for the service and maintenance will be paid by the Institute along with the To & Fro charges (The cheapest mode of Travel).
- **16) Evaluation of Tender:** Unless specifically mentioned, the overall lowest bid, meeting the technical specifications will be selected for placement of Purchase Order.
- A. Grounds for summary rejection of bid/offer without any further clarification at preliminary evaluation stage:
- 1) Unsigned bid
- 2) Late or delayed bid
- 3) Bid validity is shorter than the required period
- 4) The bid is not accompanied by Earnest Money Deposit (EMD) if EMD is required
- 5) The bidder is not eligible
- 6) No authorization letter from the manufacturer.
- 7) If there is no mention of packing, forwarding, freight, transportation and insurance charge in the offer.
- 8) Not willing to provide performance security if it is requirement of tender
- B. Grounds to be considered as material deviation for summary rejection of bid /offer without any further clarification at the discretion of the NIT Mizoram

authority during intensive technical evaluation stage: The good(s) quoted which are not meeting the major/essential technical specifications.

- **17) Enquiry during the course of evaluation not allowed**: No enquiry from the bidder(s) shall be entertained during the course of evaluation of the tender till final decision is conveyed to the successful bidder(s). However, the Purchase Committee or its authorized representative may make enquiries/seek clarification from the bidders. In such a case, the bidder must extend full co-operation. The bidders may also be asked to arrange demonstration of the offered items, in a short period of notice.
- **18)** The acceptance of the quotation will rest solely with the Director, NIT Mizoram, who in the interest of the Institute is not bound to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotations received without assigning any reasons.

19) Applicable Law:

- ➤ The contract shall be governed by the laws and procedures established by Govt. of India and subject to exclusive jurisdiction of Gauhati High Court, Aizawl Bench, Aizawl only.
- Any dispute arising out of this purchase shall be referred to the Director NIT Mizoram, and if either of the parties hereto is dissatisfied with the decision, the dispute shall be referred to the decision of an Arbitrator, who should be acceptable to both the parties, to be appointed by the Director, NIT Mizoram. The decision of such Arbitrator shall be final and binding on both the parties.
- **20) Cost of Bidding:** The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conductor outcome of the bidding process.
- 21) Clarification of bidding documents: A prospective bidder requiring any clarification of the bidding documents shall contact the Purchaser in writing at the Purchaser's address. The Purchaser will respond in writing to any request for clarification, provided that such request is received not later than ten (10) days prior to the dead line for submission of bids. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so

Enclosure: GENERAL CONDITIONS OF CONTRACT, BID FORM, ANNEXURE - I,
ANNEXURE - II, ANNEXURE - III, ANNEXURE - IV, ANNEXURE - V, ANNEXURE - VI &
ANNEXURE - VII

GENERAL CONDITIONS OF CONTRACT

1) Definitions

In this Contract, the following terms shall be interpreted as indicated: -

The following words and expressions shall have the meanings hereby assigned to them

"Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to there in, including all attachments, appendices, and all documents incorporated by reference therein.

"Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.

"Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.

"Day" means calendar day.

"Completion" means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract. "GCC" means the General Conditions of Contract.

"Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.

"Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.

"Sub-contractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is sub-contracted by the Supplier.

"Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.

The final destination, where applicable, means the place named in the "National Institute of Technology Mizoram, Aizawl - 796012"

2) Contract Documents: Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

- **Fraud and Corruption:** The purchaser requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,
- a) The terms set forth below are defined as follows:
- "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
- "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
- "Collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, non-competitive levels; and
- "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- b) The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.
- **4) Joint Venture, Consortium or Association:** If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.
- **Scope of Supply:** The Goods and Related Services to be supplied shall be as specified in the Schedule of requirements.
- **Suppliers' Responsibilities:** The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.
- **Contract price**: Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.
- **Copy Right:** The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain

vested in such third party.

- **9) Application:** These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.
- **10) Standards:** The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned Institution.

11) Patent Indemnity

- (i) The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause11.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: The installation of the Goods by the Supplier or the use of the Goods in India; and (b) The sale in any country of the products produced by the Goods.
- (ii) If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

12) Inspections and Tests

- (i) The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services.
- (ii) The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. The Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier, in writing, in a timely manner of the identity of any representatives retained for these purposes.
- (iii) Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated

representative to attend the test and/or inspection.

- **(iv)** Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods, and the Supplier shall, either replace the rejected Goods or make alterations necessary to meet specification requirements, free of cost, to the Purchaser.
- (v) The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

14) Packing:

- (i) The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- (ii) The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract and in any subsequent instructions ordered by the Purchaser.
- **Delivery:** Delivery of the Goods and completion and related services shall be made by the Supplier maximum within 30 days or 1 month from the date of issue of the Purchase Order
- **Transportation:** The Supplier is required under the Contract to transport the Goods to a specified destination in NIT Mizoram, Aizawl, Mizoram, defined as the Final Destination, transport to such destination, including insurance, unloading and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.
- **17) Incidental Services:** The supplier may be required to provide any or all of the services, if any.
- **Spare Parts:** The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
- (i) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (ii) In the event of termination of production of the spare parts:

- Advance notification to the Purchaser of the pending termination, insufficient time to permit the Purchaser to procure needed requirements; and
- Following such termination, furnishing at no cost to the Purchaser, the blue prints, drawings and specifications of the spare parts, if requested.

19) Warranty

- (i) The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- (ii) The Supplier further warrants that the Goods shall be free from defects arising from any actor omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- (iii) The warranty shall remain valid for twelve months (1 Year) after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination.
- **(iv)** The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunities for the Supplier to inspect such defects.
- **(v)** Upon receipt of such notice, the Supplier shall, within a period of 30 days, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- **(vi)** If having been notified, the Supplier fails to remedy the defect within the period specified above, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

20) Change Orders and Contract Amendments.

- (i) The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:
 - Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - The place of delivery; and/or
 - The Services to be provided by the Supplier.
 - The delivery schedule.
- (ii) If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for

- adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- (iii) No variation or modification in the terms of the contract shall be made except by a written amendment signed by both parties.
- **21) Assignment:** The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.
- **Subcontracts:** The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.

23) Extension of Time:

- (i) Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- (ii) If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.
- (iii) Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.
- **Penalty Clause:** Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, reserves the right not to accept delivery in part or full.

25) Termination for Default:

- (i) The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:
- If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser

pursuant to GCC Clause on Extension of Time; or

- If the Supplier fails to perform any other obligation(s) under the Contract.
- If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract.
- (ii) In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
 - a) The Performance Security is to be forfeited;
 - b) The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
 - c) However, the supplier shall continue to perform the contract to the extent not terminated.

26) Force Majeure

- (i) Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of *Force Majeure*.
- (ii) For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- (iii) If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- **(iv)** If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

Termination for Insolvency: The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

28) Settlement of Disputes:

- (i) The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- (ii) If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as here in after provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- (iii) The dispute settlement mechanism / arbitration proceedings shall be concluded as under: In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, NIT Mizoram, Aizawl and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
 - In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration, in accordance with provision of sub clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
- (iv) The venue of the arbitration shall be the place from where the order is issued.
- (v) Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and the Purchaser shall pay the Supplier any monies due the Supplier.
- 29) Governing Language: The contract shall be written in English language, which shall

govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in English language only.

Applicable Law: The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction of Aizawl, Mizoram, India.

31) Notices:

- (i) Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX or e-mail and confirmed in writing to the other party's address.
- (ii) A notice shall be effective when delivered or on the notice's effective date, whichever is later.

32) Taxes and Duties

- (i) For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed inside and outside India.
- (ii) For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.
- (iii) If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- **Right to use Defective Goods:** If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
- **Protection against Damage:** The system shall not be prone to damage during power failures and trip outs.
- **Site Preparation and Installation:** The Purchaser is solely responsible for the 35) construction of the equipment sites in Compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the the purchaser's immediately after notification of goods at site award.

BIDFORM

Tender No:No. NITMZ/D-64/CE/2023/4455 Date: 16.03.2023

To,

The Registrar NIT Mizoram Chaltlang, Aizawl, Mizoram - 796012

Madam,

- Having read the terms and conditions of the above-mentioned tender and equipments to be provided, I / we, the undersigned, offer to provide the equipments (mentioned in **Annexure** V) in conformity with the conditions of contract and specifications for the sum shown in the schedule of prices attached herewith in separate sealed cover and made part of this Bid.
- 2. If our Bid is accepted, we will obtain the Performance Bank Guarantees from a Scheduled Bank, for a sum, as mentioned in this tender document for due performance of the Contract.
- 3. We agree to abide by this Bid for a period of 90 days from the date fixed for Bid opening and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
- 4. Bid submitted by us are properly sealed and prepared so as to prevent any subsequent alteration and/or replacement.
- 5. We understand that you are not bound to accept the lowest or any bid, you may receive.
- 6. NIT Mizoram reserves the right to cancel the tender without assigning any reason thereof.
- 7. NIT Mizoram reserves the right to reject any or all tenders without assigning any reasons thereof.

Signature Full Name Name of Firm/Company/Agency Seal

ANNEXURE - I

A. <u>COMPLIANCE CERTIFICATE FOR NIT TERMS</u>

(To be enclosed in the Technical Bid)

| Sl. No. | NIT Mizoram Terms and Conditions | Yes / No |
|---------|--|----------|
| 01 | Rate quoted as per instruction | |
| 02 | AMC rate after warranty provided | |
| 03 | Validity of quoted rate for 90 days agreed | |
| 04 | EMD submitted (appropriate certificate enclosed) | |
| 05 | PBG term agreed | |
| 06 | Payment term agreed | |
| 07 | Delivery terms agreed | |
| 80 | Warranty period agreed | |
| 09 | Literature: Printed Literature provided | |
| 10 | Dealership / distributorship certificate (in case of dealers/agents) provided | |
| 11 | Sales Service : address of after Sales Service Centre in India (for imported | |
| | goods)/ in the region provided | |
| 12 | Applicable Law terms agreed | |

| Signature with Seal: |
|----------------------|
| Vendor: M/s |

B. <u>COMPLIANCE CERTIFICATE FOR SPECIFICATIONS</u> (One for each item must be enclosed in the Technical Bid)

| Item Sl. No.: | | | | |
|----------------------|-------------------|--|--|--|
| Quoted Item Specs. * | Complied (Yes/No) | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Signature with Seal |
|---------------------|
| Vendor: M/s |

^{*} Vendor must quote the parameter specification of the quoted product in this column and not just copy the specification from the tender call document. Failure to do so will lead to rejection of the tender.

ANNEXURE-II

PERFORMANCE BANK GUARANTEE

| To: |
|--|
| The Registrar National Institute of Technology Mizoram Aizawl - 796012, Mizoram |
| WHEREAS(Name of Supplier) Herein after called "the Supplier" has undertaken, in pursuance of Contract No |
| AND WHEREAS it has been stipulated by you in the said order that the Supplier shall furnish you with a Bank Guarantee by a recognized Bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Order. |
| AND WHEREAS we have agreed to give the Supplier a Guarantee: THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of |
| This guarantee is valid until the day of20 |
| Signature and Seal of Guarantors Date |
| Address |
| All correspondence with reference to this guarantee shall be made at the following address: National Institute of Technology Mizoram |

ANNEXURE-III

MANUFACTURERS' / DISTRIBUTOR'S AUTHORIZATION FORM

| No. | Dated |
|------------------------------------|---|
| Na | Registrar ional Institute of Technology Mizoram awl, Mizoram - 796012 |
| Dear Mad | ım: |
| Manufact having Fa | rers / Distributors oftories /office at |
| Certify th | t |
| Dealer) is enquiry Submissio | no Last Date of |
| | Yours faithfully, (Name) (Name of Manufacturer/Distributor) |

ANNEXURE-IV CONTRACT FORM

| Contract No. | | | | | |
|----------------------------|--------------|----------------|---------|-----------------|--------|
| THIS CONTRACT AGREEMENT is | made on Date | : The [insert: | number] | day of [insert: | month] |
| [insert: year] BETWEEN | | | | | |

- (1) National Institute of Technology, Mizoram, Chaltlang, Aizawl represented by ______ [insert complete name and address] of Purchaser (hereinafter called "the Purchaser"), and
- (2) [insert name of Supplier], a corporation incorporated under the laws of [country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called "the Supplier")

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency] (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- **2.** The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
 - a) This Contract Agreement
 - **b)** General Conditions of Contract
 - c) Technical Requirements (including Schedule of Requirements and Technical Specifications)
 - d) The Supplier's Bid and original Price Schedules
 - e) The Purchaser's Notification of Award
 - **f)** [Add here any other document(s)]
- **3.** This Contract shall prevail overall other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
- 4. In consideration of the payments to be made by the Purchaser to the Supplier as herein after mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- 5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the

manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the National Institute of Technology, Mizoram

Signed: [insert signature] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

Signed: [insert signature]

in the capacity of [insert title or other appropriate designation]

in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier] in the capacity of [insert title or other appropriate designation]

in the presence of [insert identification of official witness]

ANNEXURE-V

<u>LISTOFEQUIPMENTS&SPECIFICATIONFORENVIRONMENTALENGINEERINGLABORATORY</u>

| Sl. No | Description of Items | Qty |
|--------|--|-----|
| 1. | DIGITAL PH METER WITH GLASS AND REFERENCE ELECTRODE (COMPLETE SET), | 01 |
| | Technical Specification: | |
| | Micro A research grade instrument with 16 x 2 alpha numeric LCD display having auto temperature | |
| | compensation, auto buffer recognition along with accessories. Its features should include three point | |
| | calibrations. Data storage facility upto 1000 samples, complete with pH electrode, temperature probe, | |
| | electrode stand, dust cover & instruction manual, computer interface through RS232. | |
| | Accessories: 1) pH combination electrode (0-14 pH) 2) Temperature probe 3) Electrode Stand | |
| 2. | DIRECT READING CONDUCTIVITY METER WITH PVV CELL.(COPMPLETE SET), | 01 |
| | Technical Specification: | |
| | A research grade instrument with 16 x 2 alpha numeric LCD display showing conductivity, TDS & | |
| | temperature. Features should include auto ranging, selectable reference. Data storage upto 1000 | |
| | samples& computer interface through RS232. | |
| | Accessories Included: | |
| | 1) Conductivity cell (cell constant 1.0), | |
| | 2) Conductivity cell (cell constant 0.5) | 01 |
| 3. | HOT AIR OVEN SIZE 605X455X455, (AN ISO 9001:2008 CERTIFIED C&E M ARKED) | 01 |
| | Technical Specifications: | |
| | Capacity: 125Ltrs | |
| | Double walled inside Aluminium | |
| | Size: 455mm(W)x 605 mm(H) x 455 mm (D) (approx.) | |
| | Outer Chamber: Mild Steel with epoxy coated | |
| | No. of Shelves: 3 (adjustable) Shelves | |
| | Temperature: 50° C to 250° C ± 2° C | |
| | Temperature control Knob: Graduated in centigrade | |

| 4. | MUFFLE FURNACE SIZE 150X150X300, 3.5 KW 1000°C WITH ALL ACCESSORIES, (AN ISO | 01 |
|----|--|----|
| | 9001:2008 CERTIFIED C&E M ARKED) | |
| | Dimension(WxHxD):150x150x300, | |
| | Rating: 3.5 K.W. | |
| | CONSTRUCTION: | |
| | The casing should be made of thick mild steel sheet reinforced with iron angles riveting and painted with epoxy powder coating. o Heating chamber should consists of rectangular horizontal shaped totally enclosed muffle baked at 1500 deg. C. Counter balanced door for easy operation opening. Heating element made of Kanthal wire. Heating chamber surrounded outside by kanthal wire. Insulation done by mineral wool and insulation bricks. TEMPERATURE:- Upto 900 deg. C . Controlled by Digital Temp. Controller cum Indicator. To work on 220/ 230 volt A.C. | |
| | | |
| 5. | Jar test apparatus | 01 |
| | • Stirrer, programmable, C paddle, 220 V, Jar tester | |
| | Sequential or continuous operation with precise control of stirring speed and timing, four | |
| | memory banks for paddle speeds from 5-300 PRM(1RPM increments) | |
| | • Run timer from 1 second to 59 minutes(1 second increment) | |
| | Programmable audio signals | |
| | The stirrer should run sequentially through all memory banks, independently in any one memory mode, or manually at a selected speed. | |
| | Programmed information retained even in power off, Features rugged, utilized constructions and complete with built in floc illumination and anti-glare back panel, six 1000 ml round | |
| | beakers and dust cover | |
| | • Dimensions(inches): 42.25 Wx15.5Hx9.25D | |
| | | |
| 6. | COD Reactor Dual Block | 01 |

- Programmable temp. range: 37 to 165°C in 1°C increment
- Programmable timer range: 0 to 480 minutes
- Heating range: 20 to 150°C in 10 minutes
- Power supply: 100 240 V, AC 50/60 Hz
- LCD Display for simultaneous display of both heating blocks, freely programmable temp range, freely programmable timer range
- Rapid heating: within 10 min reaches to 150°C, should accommodate 30 vials at a time, auto shut off at the end of digestion time

Technical Specification:

Type of heater:-Alluminium solid Block Heater will be provided for Uniform heating.

- 2. Max working temp.: 200 deg c
- 3. Cartridge heater for reaching the working temperature max at

Heating rate of 5-25 deg c

- 4. Temperature controller:-
 - tempis controlled by microprocessor based pid temp. controller
 - timer will be provided for running the holding time for sample.
 - auto switch off on the completion of heating cycle and will
 - Horn the buzzer.
- 5. Input power supply: 230 v ac, 50 hz, 1 phase.
- 6. Thermocouple: -
 - calibrated rtd type thermocouple will be
 - provided capable of measuring upto 200°Cat accuracy of +/- 0.1°C
- 7. Control panel/display: -
 - digital display for present, set temperatures, time duration and temperature profile.
 - switch gear for on/off main and heater indication will be provided.
- 8. Safety interlocks/relay:-
 - overload safety cut-off
 - overload temperature cut off.
 - safety for input power fluctuation
 - 1-phase indication lamp.
 - emergency switch off
- 9. Construction: -
 - double walled construction, thermally insulated with cooling

System for better performance during continuous operation.

| | * Decoder as stad automat | |
|----|---|----|
| | * Powder coated external Surface for esthatic | |
| | | |
| | Appearance. | |
| | Accessories will be supplid with equipment:- | |
| | 1) reaction vessel 30 nos | |
| | 2) air condensor 30 nos | |
| | 3) stand for reaction vessel 1 no | |
| | 4) stand for aircondensor – 1 no. 5) glass bead | |
| | 6) silicon grease | |
| | Electrical requirement – | |
| | 220-240v, 50/60hz, single phase, 10.9a | |
| | or 115v, 50/60hz, single phase, 20.8a | |
| | | |
| 7. | Electronic Analytical Balance, | 01 |
| | • Capacity: 220gm | |
| | Minimum Display: 0.1mg | |
| | • Repeatability (Standard Deviation): ≤0.1mg | |
| | • Linearity: ±0.2mg | |
| | • Response Time: Approx. 3.0 seconds | |
| | • Operating Ambient Temperature: 5-40°C 20-85% | |
| | Temperature Coefficient Sensitivity (ppm/C): ±2ppm/°C(no condensation) | |
| | • Pan Size (mm) approx.: Φ 91 | |
| | | |
| | • Main Body Dimensions (mm) approx.: 213(W)×356(D)×338(H) | |
| | • Weight (kg) approx.: 6.2 | |
| | • Power requirement: 12V, 1A | |
| | Internal Calibration: Yes | |
| 8. | HOT PLATE RECTANGULAR WITH ENERGY REGULATOR | 01 |
| | SIZE-30X45 cm | |
| | Hot plate (Rectangular) | |
| | • 300x450 mm | |
| | Energy regulator | |
| | Stainless steel top | |
| | 5 Stallifess steel top | |
| 9. | Ultrapure water purification system (for type 1 quality water), Bio Trace Ultrapure (Grade 1) and | 01 |
| 7. | pure (Grade 2) water for inorganic trace analysis, | 01 |
| | Technical Specification: | |
| | • | |
| | • Water purification systems should provide ultrapure (Grade 1), Pure (Grade 2). | |
| | The quality of water should meet the requirements of ISO 3696 standard and corresponding ASTM | |

| | and CLSI standards. | 1 |
|-----|--|----|
| | Applications: | |
| | General Laboratory Applications | |
| | Glassware rising | |
| | Laboratory washers | |
| | Autoclaves | |
| | Electrophotometry | |
| | Buffer and media preparation | |
| | Reagent preparation | |
| | Inorganic analysis methods | |
| | Flame atomic absorption spectrophotometry | |
| | Graphite automizer atomic absorption spectrometry | |
| | Plasma mass-spectrometry (ICP-MS) | |
| | Plasma spectrophotometry (ICP-OES) | |
| | Ion Chromatography | |
| | Organic analysis methods | |
| | Liquid chromatography (HPLC/UHPLC) | |
| | Gas chromatography | |
| | Total organic carbon measurements | |
| | Molecular Biology | |
| | Flow cytometry | |
| | Cell and tissue culture | |
| | Other Features: | |
| | Volumetric Dispense | |
| | Water Quality and Validation | |
| | Total Organic Carbon (TOC) Monitor | |
| | Color Graphic LCD display | |
| | Electrodeionization Module | |
| 10. | Fume Hood, Working Size: W 4 x D 3 x H 4 Ft, MOC: In GI with FRP construction, | 01 |
| | Technical Specification: | |
| | Working area: Length 1200 x D 900 x H 1200 mm | |
| | Overall size: Length 1300 x D 1050 x H 2700 mm | |
| | Front door slide: 900 mm height from the bed / work table Worktable height: 750 mm from the floor level | |
| | Air Balancing: 100% Exhaust with air bye-pass entry | |
| | Noise Level: 70 dB "A" Scale if blower mounted outside the lab | |
| | Suction Velocity: 100 FPM when the door- 12" open | |
| | Power Supply: Three Phase, 415 V, 50 Hz | |
| | Material of construction: The complete cabinet should be made of Galvanized Iron Sheet Construction with | |
| | PU coated finished and inner FRP lining. | |
| | Working Surface: The work table should be made of 6mm thick FRP Single Molding with heavy underneath | |

| | ı | | |
|---|---------------------|---|----|
| | support. | | |
| | | Front door should be made of 4mm thick Polycarbonate Sheet with suitable frame, | |
| | | bly balanced counter weight through wire rope for smooth up & down movement | |
| Exhaust Blower: Exhaust blowers for fume hoods should be designed based on the front opening area. The | | | |
| | | od should be of 1000 CFM displacing capacity at a minimum of 50 mm WC static and | |
| | | ase, 1440 RPM reputed make such as Marathon / Kirlosker. The blower should be | |
| | DYNAMICALLY | BALANCED & made of MS with CRCA sheet metal casing with complete inside FRP | |
| | lining. | | |
| | The complete mot | or & blower unit should be mounted directly on the top of the Hood or should be installed | |
| | on dedicated platfo | orm /foundation laid outside the lab and connected through the 200 mm diameter exhaust | |
| | duct made of rigid | PVC pipe – up to a length of 10 Feet with suitable whether cowl. Suitable on/off switch | |
| | should be provided | d for the operation of the motor and Light. | |
| | Other facilities: | | |
| | | LED Fitting for Energy saver & Long life | |
| | b. 2 Nos. of 5/15A | | |
| | | es for gas / vacuum supply | |
| | d. Heavy duty floo | | |
| | e. FRP sink with v | vater Single way water tap | |
| 11. | MAGNETIC STIR | RER WITH HOT PLATE (Digital) | 01 |
| | Technical Specif | fication: | |
| | rpm:1400-1500 | | |
| | Capacity: 2Ltrs. | | |
| | With digital temp | o. controller cum indicator | |
| 12. | Digital Nephlo Tu | urbidity meter | 03 |
| | Range: | 0 to 20.00 NTU | |
| | | 0 to 200.00 NTU | |
| | | 2 ranges | |
| | | 0.1, 1 NTU | |
| | Resolution: | 0.1, 1NTU | |
| | Accuracy: | +2% FS+1 digit | |
| | Sample system: | 30 mm clear glass tube | |
| | Light source: | 6.8 V, Tungsten Lamp | |
| | Detector: | Photodiode | |
| | Display: | 3 1/2 digit LED display | |
| | Power: | 220 V +10% AC 50 Hz | |
| | Size(LxBxH): | 305x305x165 mm | |
| | Weight: | 4 kg(approx.) | |
| 13. | | ZE- 450X600mm, Capacity: 98 Ltr., Vertical Automatic Autoclave, | 01 |
| | Technical Specif | fication: | |

| | | 1 |
|-----|--|----------|
| | • Chamber Dimensions : 450 x 650mm | |
| | • Capacity: 100liters | |
| | Heater Capacity: 4KW | |
| | Inner and Outer Chamber made of Thick Gauge SS | |
| | Glass Wool insulation provided to arrest radiation of heat | |
| | Thermostatic Control auto pressure cut off. | |
| | Radial locking mechanism for lid closing | |
| | Water level indicator, critical level cut off | |
| | Vacuum breaker, Exhaust valve, manual drain | |
| | Analog Pressure gauge to show pressure of chamber | |
| | Heavy duty heating coil to give faster heating and long time durability. | |
| | Power supply: 230v,50Hz, Single phase supply | |
| | Supplied complete with Stainless Steel basket – 1no | |
| 14. | MICRO PROCCESSOR BASED FLAME PHOTOMETER WITH ALL ACCESSORIES, | 01 |
| | Digital Flame Photometer | 01 |
| | With fitted (Na & K) 3½ digit LED display (ppm) along with compressor and | |
| | Accessories: Filters-Ca& Li, Air Compressor | |
| | The control of the co | |
| 15. | Digital Colony Counter. | 01 |
| | 4-Digit LED display range 0-9999 with 50 memory, hold & count correction facility. Data | - |
| | restored after power failure. | |
| | Accessories: | |
| | 1) Spare pen for colony counter | |
| | 2) Lens stand | |
| 16. | WATER BATH, SIZE- 300X300X175mm WITH ALL ACCESSORIES, (AN ISO 9001:2008 CERTIFIED | 01 |
| | C&E M ARKED) | <u> </u> |
| | Technical specification: | |
| | Suitable for the washerman, Kolmer and Khan Test inactivation Paraffin Embedding etc' | |
| | Double walled inside made of Stainless Steel 304 glty | |
| | Outside of Mild Steel Sheet duly painted with epoxy powder coated | |
| | 25 mm mineral wool insulation on five sides | |
| | Temperature controlled by a Hydraulic type thermostat from few ⁰ C above ambient to 80 deg. C | |
| | with maximum temperature 100 deg C to ±0.5°C. | |
| | Heating element of copper Nickel plated tabular type | |
| | Capacity: 18Ltrs. | |
| | | |
| | <u> </u> | |
| | Stainless Steel cover, brass drain plug, cord with plug | |
| | Work on 220 /230 volt A.C. | |

| 17. Ultra-Low Temperature Freezer with CO2 Backup System, Ultra-Low Temperature Freezer (-80°C) with 5kva voltage stabilizer, | 01 |
|---|----|
| Technical Specification: | |
| Ultra Low Temperature Freezer 460liter capacity | |
| • Temperature Range: -40°C to -86°C | |
| Temperature Controller: Microprocessor based digital PID controller | |
| No. of Trays: 4nos | |
| • Resolution: 0.1°C | |
| • Control Accuracy: ± 3° C | |
| • Sensor: PT 100 Sensor | |
| Audio Alarm for High and Low Temperature. | |
| CFC free cascade refrigeration system | |
| Fin & Tube type air cooled condenser | |
| Polyurethane insulation (PUF) | |
| • 2" Storage Rack, 3" Storage Rack & 4" Storage Rack | |
| • 2" Cardboard Box for Vials with 8x8 Divider | |
| 3" Cardboard Box for Vials with 8x8 divider | |
| 4" Cardboard Box for Vials with 8x8 divider | |
| Inner made of Stainless Steel 304 with duly polished | |
| Outer made of mild steel with powder coated | |
| Double Walled Main door (interior lined with SS) | |
| Fully automatic operation | |
| Heavy duty Castor wheels for easy movements | |
| Interior Dimensions (WxDxH): 650x650x1100mm | |
| • Power supply: 230 V, 50 Hz, single phase | |
| 18. BOD ANALYSIS PACKAGE: | |
| a) BOD self - Check Measurement with 6 bottles and accessories | 01 |
| Technical Specifications: | 01 |
| 1. Measuring principle: Manometric with pressure sensor. | |
| 2. Measuring range: 0 40 digits (display units) equals 040/80/200 / 400 / | |
| 800 / 2000 / 4000 mg/L BOD | |
| 3. Operating range : 500 – 1100 hPa | |
| 4. Memory: For BOD 5: 1 per day | |
| Supply should include: | |
| IS6 Inductive Stirring system | |
| 6 Nos. Oxitop Measuring Heads & Bottles | 01 |
| Nutrient salt, Nitrification Inhibitor | |

| | Power Supply | |
|-----|---|----|
| | Instructions Manual | |
| | b) BOD Incubator | |
| | Specifications: | |
| | Volume: 320 Litres | |
| | • Temp Setting: 5 to 50 deg C | |
| | Temp Stability: • 2 deg C | |
| | • Power: 230 V, 50 Hz and 2.5 Amps | |
| | Refrigerant: R134 (CFC Free) | |
| | Heating Power: 150W | |
| | • Cooling Power: 200W | |
| | Temperature Display: 3 digital LED display | |
| | Temperature Display: 3 digital EED display Temperature Setting: Digital Keypad | |
| | Ambient Temperature: 0 to 50 ° C | |
| | Temperature Control: Automatic Microprocessor based | |
| | Temperature Control: Automatic Microprocessor based Temperature Sensor: PT 100 | |
| 19. | Weighing Balance, 300 g x 0.1 g | 01 |
| 1). | Technical Specification: | V1 |
| | • Accuracy: ±0.2 g | |
| | • Capacity (g):300 | |
| | • Capacity range:32mL | |
| | Housing dimensions: 5.1 x 2.5 x 22.9 cm | |
| | • Dimensions ("W):2 | |
| | • Dimensions (" H):1 | |
| | • Dimensions ("D):9 | |
| | • Readability (g):0.1 | |
| | • Repeatability (g): ±0.1 | |
| | Unique spatula both scoops material and instantly displays weight | |
| | Unique spatula both scoops material and instantly displays weight | |
| | Scoop design eliminates spilling | |
| | • Three-position soft-touch keys in the handle tares (sets to zero), holds (freezes the display), and | |
| | changes grams/ounces | |
| | Lightweight — only 3 oz | |
| 20. | Centrifuge | 01 |
| | Technical Specification: | |
| | Compact design | |
| | • Easy to operate | |
| | Quiet operation, low vibration | |

| | Tool-free, quick rotor exchange | |
|-----|---|----|
| | • Quick-spin feature | |
| | Safety features: imbalance and tilt safety cut-out; safety interlock lid prevents | |
| | opening while rotor is turning | |
| | • Able to perform fast spins with higher RCF requirements up to 9,800 x g | |
| | Back-lit, customizable display can be set for rpm or RCF | |
| | Max Capacity 12 x 2 mL | |
| | Max Speed 12,500 rpm (100 rpm increments) | |
| | Max RCF 9,800 x g (100 x g increments) | |
| | Timer 1 second to 30 minutes (1 second | |
| | increments) and quick-spin available | |
| | Noise Level 51-53 dBA | |
| | Power 110-240 V, 50-60 Hz with 4 | |
| | interchangeable plug adapters | |
| | Dimensions (D x W x H) Dimensions (D x W x H) | |
| | Weight 1.41 kg (3.1 lbs.) | |
| | Certifications CE, CSA, UL | |
| | Warranty 2 years | |
| 21. | DO Meter | 01 |
| | Features: | |
| | Multi-display, show oxygen & Damp; Temp. at the same time. Auto power off saves battery | |
| | life. Records Maximum, Minimum and Average readings with recall, data hold. Use the | |
| | durable, long-lasting components, including a heavy duty & Damp; compact ABS-plastic | |
| | housing case. Powered by 006P DC 9V battery. RS 232 PC serial interface. | |
| | Technical Specification: | |
| | Temperature :0 to 50 | |
| | Accuracy (23± 5) °C: Dissolved Oxygen ± 0.4 mg/L | |
| | Resolution: Dissolved Oxygen :0.1 mg/L | |
| | Number of memory sticks: 1 | |
| | Item weight: 1 kg | |
| | Dimensions: 20 X15X10 CM | |
| 22. | UV – Visible spectrophotometer | 01 |
| | Technical Specifications and features | |
| | Double Beam optics with | |
| | stand-alone operation through integrated Windows based control and | |
| | 7" High Resolution Touch Screen LCD | |
| | Wavelength Range: 190-1100 nm working range | |
| | • Absorption: + 3abs | |
| | Bandwidth: 1.8 nm | |
| | Readability: 0.1nm | |

| Repeatability: 0.2nm Monochromator design: Czerny Turner Detector: silicon diode Concave holographic grating with 1200 lines/mm Spectrum processing through In built software Display of graph Pre installation requirements: online UPS 1KVA Kjeldahl Digestion Unit (Digestion unit and Nitrogen Distillation System), Make: Borg Scientific Block Digestion Unit: Model ProblocpB 506 – 6 place Macro Block Digestion Unit Matomatic Distillation Unit: Model Prokjel AU – Automatic Distillation System Technical Specifications: Table Top – 6 position Digestion system Tengerature Range: Ambient to 450° C Microprocessor based PID temperature controller Temperature Accuracy: ±0.1° C Cartridge Heater: 1000W Block made of Special Aluminum Alloy Supplied complete with fume exhaust manifold, Water aspirator pump for fume removal, Tube rack, Manifold stand, Deflector plates etc. Power Supply: 230v. 50Hz Single Table Top Automatic Distillation System 4.3° Color Touch Screen HMI based PLC Controller Touch Screen HMI has in built menus and sub menus for programming Distillation time, reaction delay time, alkali, water dilution pumping etc Distillation Time Programmable 1 to 99mins Reaction Delay Time Programmable 0 to 5minutes (Auto) Automatic Alkali pumping Volume: 15 to 50ml Automatic Boric Acid Pumping Automatic Boric Acid Pumping Automatic Boric Acid Pumping Automatic Water Dilution: Settable 0 to 100ml Automatic Water Dilution: Settable 0 to 100ml Automatic Water level maintenance in Steam Generator. Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser - Made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping Distillation Films Programmable on the premiute contimally | | D (17) 02 |
|---|-----|--|
| Detector: silicon diode Concave holographic grating with 1200 lines/mm Spectrum processing through In built software Display of graph Pre installation requirements: online UPS 1KVA Kjeldahl Digestion Unit (Digestion unit and Nitrogen Distillation System), Make: Borg Scientific i) Block Digestion Unit: Model ProblocpB 506 – 6 place Macro Block Digestion Unit ii) Automatic Distillation Unit: Model Prokjel AU – Automatic Distillation System Technical Specifications: Table Top – 6 position Digestion system Temperature Range: Ambient to 450° C Microprocessor based PID temperature controller Temperature Range: Ambient to 450° C Microprocessor based PID temperature controller Temperature Accuracy: ±0.1° C Cartridge Heater: 1000W Block made of Special Aluminum Alloy Supplied complete with fume exhaust manifold, Water aspirator pump for fume removal, Tube rack, Manifold stand, Deflector plates etc. Power Supply: 230v, 50Hz. Single Table Top Automatic Distillation System 4.43° Color Touch Screen HMI based PLC Controller Touch Screen HMI has in built menus and sub menus for programming Distillation time, reaction delay time, alkali, water dilution pumping etc. Distillation Time Programmable 1 to 99mins Reaction Delay Time Programmable 0 to 5minutes (Auto) Automatic Alkali pumping Volume: 15 to 50ml Automatic Water Dilution: Settable 0 to 100ml Automatic Boric Acid Pumping Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
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| Display of graph Pre installation requirements: online UPS 1KVA 23. Kjeldahl Digestion Unit (Digestion unit and Nitrogen Distillation System), Make: Borg Scientific i) Block Digestion Unit: Model ProblocpB 506 - 6 place Macro Block Digestion Unit ii) Automatic Distillation Unit: Model ProblepB 4U - Automatic Distillation System Technical Specifications: Table Top - 6 position Digestion system Temperature Range: Ambient to 450° C Microprocessor based PID temperature controller Temperature Accuracy: ±0.1° C Cartridge Heater: 1000W Block made of Special Aluminum Alloy Supplied complete with fume exhaust manifold, Water aspirator pump for fume removal, Tube rack, Manifold stand, Deflector plates etc. Power Supply: 230v, 50Hz Single Table Top Automatic Distillation System 4.3" Color Touch Screen HMI based PLC Controller Touch Screen HMI has in built menus and sub menus for programming Distillation time, reaction delay time, alkali, water dilution pumping etc Distillation Time Programmable 1 to 99mins Reaction Delay Time Programmable 0 to 5minutes (Auto) Automatic Alkali pumping Volume: 15 to 50ml Automatic Water Dilution: Settable 0 to 100ml Automatic Water Dilution: Settable 0 to 100ml Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
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| ii) Automatic Distillation Unit: Model Prokjel AU - Automatic Distillation System Technical Specifications: Table Top - 6 position Digestion system Temperature Range: Ambient to 450° C Microprocessor based PID temperature controller Temperature Accuracy: ±0.1° C Cartridge Heater: 1000W Block made of Special Aluminum Alloy Supplied complete with fume exhaust manifold, Water aspirator pump for fume removal, Tube rack, Manifold stand, Deflector plates etc. Power Supply: 230v, 50Hz Single Table Top Automatic Distillation System 4.3" Color Touch Screen HMI based PLC Controller Touch Screen HMI has in built menus and sub menus for programming Distillation time, reaction delay time, alkali, water dilution pumping etc Distillation Time Programmable 1 to 99mins Reaction Delay Time Programmable 0 to 5minutes (Auto) Automatic Alkali pumping Volume: 15 to 50ml Automatic Water Dilution: Settable 0 to 100ml Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | 23. | |
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| Touch Screen HMI has in built menus and sub menus for programming Distillation time, reaction delay time, alkali, water dilution pumping etc Distillation Time Programmable 1 to 99mins Reaction Delay Time Programmable 0 to 5minutes (Auto) Automatic Alkali pumping Volume: 15 to 50ml Automatic Water Dilution: Settable 0 to 100ml Automatic Boric Acid Pumping Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
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| Distillation Time Programmable 1 to 99mins Reaction Delay Time Programmable 0 to 5minutes (Auto) Automatic Alkali pumping Volume: 15 to 50ml Automatic Water Dilution: Settable 0 to 100ml Automatic Boric Acid Pumping Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | Touch Screen HMI has in built menus and sub menus for programming Distillation time, |
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| Automatic Water Dilution: Settable 0 to 100ml Automatic Boric Acid Pumping Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | Reaction Delay Time Programmable 0 to 5minutes (Auto) |
| Automatic Water Dilution: Settable 0 to 100ml Automatic Boric Acid Pumping Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | Automatic Alkali pumping Volume: 15 to 50ml |
| Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
| Automatic Tube Drain Facility in-built (Residue Removal) Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | Automatic Boric Acid Pumping |
| Steam Generator: Stainless Steel with heavy duty heaters, Safety Valve, High pressure and over temperature cut off Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
| temperature cut off • Automatic Water level maintenance in Steam Generator. • Steam Generator efficiency adjustable upto 100% • Cooling Condenser – Made of Borosilicate Glass (cascade Mode) • Splash Head made of Borosilicate glass • Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
| Automatic Water level maintenance in Steam Generator. Steam Generator efficiency adjustable upto 100% Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
| Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
| Cooling Condenser – Made of Borosilicate Glass (cascade Mode) Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | Steam Generator efficiency adjustable upto 100% |
| Splash Head made of Borosilicate glass Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | |
| Imported Bellow and oscillating Pumps for water refill, alkali, Boric Acid pumping | | · |
| | | |
| | | Distillate Collection: 18 to 25ml per minute optimally |

| | Water / alkali/ Boric Acid tank : 5liters each | |
|-----|--|----|
| | RS 232 port for Auto Titrator / PC connectivity | |
| | Power Supply: 230v, 50Hz Single | |
| | • Standard features include Door Open alarm, Tube not in place, Low water level indication, Vent | |
| | valve to avoid back suction of distillate. | |
| 24. | Atomic Absorption Spectrophotometer, Make: Shimadzu, Model: AA6880. | 01 |
| | | |
| | Generalized technical Specification for double beam Atomic Absorption spectrophotometer | |
| | The system should have minimum following specification: | |
| | Optics-True double beam optics with aberration corrected Czerny-Turner monochromator | |
| | mounting | |
| | High resolution grating with 1800 lines/mm and 300 mm or more focal length for high energy | |
| | throughput | |
| | Wavelength Range- Complete measuring wavelength range from 185 nm to 900 nm | |
| | | |
| | ■ Bandwidth selection : 6-step or more bandwidth selection with automatic switching from 0.1 to 2 | |
| | nm | |
| | Detector- High sensitivity Photo-Multiplier Tube (PMT) detector for complete wavelength range/ | |
| | Solid state detector (SSD) or any other high performance detector | |
| | | |
| | 8-lampmotorized turret, controlled through software with 2 lamps simultaneously lit, one for | |
| | measurement and other for warm up for the next measurement | |
| | - In brillian and the High market hand have deep deep deep deep deep deep deep de | |
| | In built power supply for High-performance boosted lamp/ Super lamp/ High Intensity Hollow cathode lamps/EDL must be there in the system | |
| | Cathode lamps/EDL must be there in the system | |
| | Dual background correction as standard - High speed dual frequency simultaneous measurement | |
| | D2 background correction and high-speed Self Reversal background correction | |
| | be buckground correction and high speed ben heverbar background correction | |
| | ■ System must be supplied with 100 mm Air-C ₂ H ₂ solid Titanium burner& 50 mm N ₂ O-C ₂ H ₂ | |
| | burner as standard for automatic ignition and extinction of flame | |
| | 3 | |
| | High efficiency nebulizer with chamber made of engineering plastic, Platinum-Iridium orifice and | |
| | Ceramic impact bead resistant to strong acids including HF Fully computerized gas flow control | |
| | system with automatic setting of optimum fuel and oxidant flow rates | |
| | | |

- System must provide PERFORMANCE GUARANTEE: Greater than 0.7 abs for 5 mg/L copper solution with an RSD of less than 0.5%.
- All the safety functions must be provided as standard including Leak Check; Flame Monitor; Gas Pressure Monitor; Interlock for wrong burner head use; Auto switch-over between Air-C₂H₂ / N₂O-C₂H₂ flame with flow rate monitoring using optical sensor; Drain Tank Level Monitor, Automatic flame extinction during power sudden power interruption, Vibration sensor for auto flame extinction; Internal fan stop sensor and flame retardant body

• Automatic Gas flow Control:

The system must have automatic searching for optimal fuel gas flow rate which optimizes the gas flow rate by measuring the changes in absorbance between a blank and a standard sample. The difference between the two must be displayed on the screen. The gas flow rate achieving the

highest sensitivity must be detected and this value must automatically set as the gas flow rate value.

- **Software operation** on Windows 7 for complete instrument control, data acquisition and processing Software includes strengthened QA / QC functions; 21 CFR compliance; Hardware Validation functions and Comprehensive data management system as standard
- Single Hollow Cathode Lamps / boosted lamps for
 - must be supplied along with the system
- Hydride vapour generator: party must offer Hydride vapour generator alongwith main system. Used with the AAS, Hydride vapour generator permits the rapid and accurate quantitation of elements such as As, Se, Sb, Sn, Te, Bi and Hg at several-ppb levels.

Specification:

Measurement method: continuous flow Sample consumption: 0 to 7 mL/min, variable Reagent consumption: 0 to 2.5 mL/min, variable

Atomizer: Heated absorption cell (heated by Air-C2H2 flame in standard system)

Carrier gas: Ar pressure: 0.32 MPa, consumption: 70 mL/min

Power requirements: 240 VAC,50/60 Hz

absorption cell , Reagent bottles, gas hose, drain tube, etc. must be supplied with Hydride generator as standard

Graphite Furnace-

■ Heating Temperature Range – Ambient to 3,0000C

Digital current control system with automatic temperature calibration during Drying stage

Auto sampler

System: Flame / furnace Function: Zero-point detection, auto rinse, auto diagnosis, random access Maximum reagent / sample positions: Reagents: 8 positions, samples: 60 positions

- Utilities required for AAS operation like Branded latest PC &laserjet Printer, Exhaust hood assembly, Double stage SS C₂H₂ Regulator, double stage SS N₂O regulator with heater, Acetylene Gases Cylinders, N₂O Gas cylinder, Double stage SS Ar Regulator, Ar Gas Cylinder, Oil free air compressor, suitable Servo Voltage Stabilizer /UPSneed to be supplied along with the instrument.
- Warranty must be 24 months from the date of installation.
- Installation & training should be provided at our lab free of cost
- Party should offer AMC charges after expiry of standard warranty period
- Delivery must be within 10 weeks after placing of Purchase order
- Manufacturer or their Authorized channel partner must provide User list in India
- Country of Origin must be mentioned in the offer
- Manufacturer or their Authorized channel partner/Indian Agent can participate in this tender. If Manufacturer wants to participate in this tender directly then Manufacturing certificate needs to submit for the quoted model mentioned positively otherwise their tender will be cancelled.
- If Indian agent quoting on behalf of OEM then quoted model details must be available in OEM Website otherwise their bid will be cancelled.

25. Rotary Shaker (Heavy Duty)

Technical Specifications:

- Fitted with DC heavy duty continuous rating motor.
- Compact counter balanced drive mechanism ensures high stability and reliability even in continuous operation & uneven load distribution.
- Speed range is 50 250 RPM. (Approximate).
- Fitted with Digital RPM /Speed meter.
- Complete body is mounted on heavy mild steel angle iron frame making it rigid and sturdy for smooth operations.
- Mild steel powder coated platform fitted with rubber discs to hold conical flasks from 100ml to 1000ml capacity.
- Mounted on ball bearing crankshafts to give an orbital circular motion to the flasks.
- The diameter of the orbit is approximately 2".
- Speed is controlled through a SMPS-based DC DRIVE UNIT speed control knob or through a VARIAC (AUTO TRANSFORMER).
- Fitted with ON/OFF timer for shaking time control.

01

- Supplied complete with cord & plug to work on Single Phase 220 / 230 volts A.C. supply.
- CAN ACCOMMODATE Sieves Up to 8 (200mm) dia x 2 (50mm) Height.
- Maximum 8 Nos. plus Upper Lid and Bottom Receiver.
- Sieves Up to 12 (300mm) dia x 2 (50mm) Height. Maximum 6 Nos. plus Upper Lid and Bottom Receiver.
- Adaptor 12" Dia to accommodate sieves of 12" Dia.

ANNEXURE-VI

दूरभाष/TEL: 26962819, 26567373

(EPABX) ; 26565694, 26562133 ; 26565687, 26562144

26565687, 26562144 26562134, 26562122

: 26960629, 26529745 : http://www.dsir.gov.in



भारत सरकार विज्ञान और प्रौद्योगिकी मंत्रालय वैज्ञानिक और औद्योगिक अनुसंधान विभाग टेक्नोलॉजी भवन, नया महरौली मार्ग,

नई दिल्ली - 110016

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
Department of Scientific and Industrial Research
Technology Bhavan, New Mehrauli Road,
New Delhi - 110016

Dated: 25-01-2021



To,

सचना का

अधिकार

RIGHT TO

INFORMATION Website

The Registrar
National Institute of Technology – Mizoram
Chaltlang
Aizawl – 796 012
Mizoram

Subject: Renewal of Registration of Public Funded Research Institutions or a University or an Indian Institute of Technology or Indian Institute of Science, Bangalore or a Regional Engg. College, other than a Hospital*, for purposes of availing Customs Duty exemption in terms of Notfn. No. 51/96-Customs dt. 23.07.1996, Notfn. No. 47/2017-Integrated Tax (Rate) dt. 14.11.2017 and Notfn. No. 45/2017- Central Tax (Rate) dt. 14.11.2017, Notfn. No. 45/2017-Union Territory Tax (Rate) dt. 14.11.2017, as amended from time to time.

With Reference: Your letter dated 09-12-2020 on the above subject, this is the certificate of registration.

CERTIFICATE OF REGISTRATION

This is to certify that National Institute of Technology – Mizoram, other than Hospital*, is registered with the Department of Scientific and Industrial Research (DSIR) for purposes of availing Customs Duty exemptions in terms of Notfn. No. 51/96- Customs dt. 23.07.1996, Notfn. No. 28/2003- Customs dt. 01.03.2003, Notfn. No. 43/2017- Customs dt. 30.06.2017 & Notfn. No. 47/2017- Integrated Tax (Rate) dt. 14.11.2017, Notfn. No. 10/2018-Integrated Tax (Rate) dt. 25.01.2018 and Notfn. No. 45/2017- Central Tax (Rate) dt. 14.11.2017, Notfn. No. 45/2017- Union Territory Tax (Rate) dt. 14.11.2017 & Notfn. No. 9/2018- Central Tax (Rate) dt. 25.01.2018, Notfn. No. 9/2018- Union Territory Tax (Rate) dt. 25.01.2018, as amended from time to time for research purposes only. This Registration is subject to terms and conditions mentioned overleaf.

This Registration is valid up to 31.08.2025.

Please acknowledge the receipt.

Yours faithfully,

(Dr. P.K.Dutta) Scientist - 'F'

* Certificate of registration is not valid for activities falling within the definition of "hospital" as per notification no. 51/96 — Customs dated 23-07-1996 issued by the Department of Revenue. The institutions are cautioned to go through the notification before availing duty exemptions under this notification

Terms and conditions for registration of public funded research institutions, etc., other than a hospital for the purposes of availing Customs Duty exemption in terms of Notfn. No. 51/96-Customs dt. 23.07.1996, Notfn. No. 47/2017-Integrated Tax (Rate) dt. 14.11.2017 and Notfn. No. 45/2017- Central Tax (Rate) dt. 14.11.2017, Notfn. No. 45/2017- Union Territory Tax (Rate) dt. 14.11.2017, as amended from time to time.

- 01. The institution should acknowledge receipt of the registration letter by stating that they will abide by the terms and conditions of registration.
- 02. The registration would be valid for the period specified in the registration letter**. Request for renewal of registration shall be made in the prescribed proforma, at least 3 months before the expiry of the valid registration. Applications received late may not be considered.
 - ** However, certificate of registration is not valid for activities falling within the definition of 'hospital' as per notification no. 51/96-Customs dated 23.07.1996 issued by the Department of Revenue. The institutions are cautioned to go through the notification before availing duty exemptions under this notification.
- 03. Brief summary of the R&D activities, status of on-going projects and achievements of the institution shall be submitted to the DSIR at the end of 5(five) years, in case of institution where validity of registration is 10(ten) years. This should include details related to papers published, patents obtained and processes developed, new products introduced, awards & prizes received and copy of the latest Annual Report.
- 04. The institution should have a broad based research advisory committee (RAC), which should meet at regular intervals for approving, guiding and monitoring the ongoing and future research projects.
- 05. The institution should have separate budget for research. The institution should utilise the duty exemption facility as per the above-mentioned notification, for research purposes only. Non-research requirement such as the one for service activities, teaching, training, patient care, etc. should not be procured availing the facility.
- OSIR will not be responsible for any misuse of the duty exemption facility using this certificate. The onus that duty exemption has been availed for research purpose only lies with the institution
- 07. The institutions should introduce a chapter in its Annual Report dealing with the research & development work. This could contain the on-going research projects, achievements during the year, publications, patents if any, etc. The R&D income & expenditure should be separately shown in an annexure/schedule in the statement of accounts in the Annual Report.
- 08. The registration will entitle the institutions to avail custom duty exemption on purchase of equipment, instruments, spares thereof, consumables etc. used for research & development subject to relevant Government policies in force from time to time. Such exemption will have to be separately applied for in the prescribed formats. The institutions should also abide by the terms & conditions of the customs notifications issued/amended from time to time.
- 09. In case of disposal/sale of R&D equipment, clearance from customs authorities will also be required in view of the applicable notification under which the equipment was imported in India.
- 10. The institution should submit details of the imports at the time of renewal in the proforma issued by DSIR.
- 11. Any violation of the terms & conditions mentioned above and/or provisions of taxation in force will make the institution liable to de-registration.
- 12. The institution will also conform to such other conditions for registration stipulated in the Guidelines, as may be specifically provided in the registration letter and notices placed on department official website (http://www.dsir.gov.in) from time to time.

___*___*___*___

ANNEXURE-VII

PROFORMA for FINANCIAL BID

- 1. Rate for each item shall be filled in **Column 3**. Leaving blank for any item **is NOT** permitted in the Financial Bid Form, in such cases the Bid will be treated as **non-responsive** and will be summarily rejected.
- 2. Conditional Bid shall not be considered and will be rejected outright.

LIST OF EQUIPMENTS FOR ENVIRONMENTAL ENGINEERING LABORATORY IN THE DEPARTMENT OF CIVIL ENGINEERING, NIT MIZORAM

| Sl No. | Name of Equipment | Qnty. | Basic Rate (INR in Figure) | TotalAmount (InWord) |
|--------|--|-------|-------------------------------|-------------------------|
| 1 | 2 | 3 | 4 | 5 |
| 1. | For supply & installation of Digital Ph Meter With Glass and Reference Electrode (Complete Set) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 2. | For supply & installation of Direct Reading Conductivity Meter with PVV Cell (Complete Set) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 3. | For supply & installation of Hot Air Oven Size 605X455X455, (An ISO 9001:2008 Certified C&E Marked) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 4. | For supply & installation of Muffle Furnace Size 150X150X300, 3.5 KW 1000°C with all Accessories, (An ISO 9001:2008 Certified C&E Marked) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 5. | For supply & installation of Jar test apparatus in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 6. | For supply & installation of COD Reactor Dual Block in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 7. | For supply & installation of Electronic Analytical Balancein the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | | |
| 8. | For supply & installation of Hot Plate Rectangular With Energy Regulator Size-30X45 cm in the Department of Civil Engineering | 1 | | |

| | (CE) at NIT Mizoram, Aizawl | | |
|-----|---|---|--|
| 9. | For supply & installation of Ultrapure water purification system (for type 1 quality water), Bio Trace Ultrapure (Grade 1) and pure (Grade 2) water for inorganic trace analysis in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 10. | For supply & installation of Fume Hood, Working Size: W 4 x D 3 x H 4 Ft, MOC: In GI with FRP construction in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 11. | For supply & installation of Magnetic Stirrer With Hot Plate (Digital) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 12. | For supply & installation of Digital Nephlo Turbidity meterin the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 3 | |
| 13. | For supply & installation of Auto Clave, Size- 450X600mm, Capacity: 98 Ltr., Vertical Automatic Autoclave in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 14. | For supply & installation of Micro Proccessor Based Flame Photometer With All Accessories in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 15. | For supply & installation of Digital Colony Counter in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 16. | For supply & installation of Water Bath, Size- 300X300X175mm With All Accessories, (An ISO 9001:2008 Certified C&E Marked) in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 17. | For supply & installation of Ultra- Low Temperature Freezer with CO2 Backup System, Ultra-Low Temperature Freezer (-80°C) with 5kva voltage stabilizer in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 18. | For supply & installation of Bod Analysis Package in the Department of Civil Engineering | 1 | |

| | (CE) at NIT Mizoram, Aizawl | | |
|-----|--|---|--|
| 19. | For supply & installation of Weighing Balance, 300 g x 0.1 g in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 20. | For supply & installation of Centrifugein the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 21. | For supply & installation of DO Meter in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 22. | For supply & installation of UV – Visible spectrophotometer in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 23. | For supply & installation of Kjeldahl Digestion Unit (Digestion unit and Nitrogen Distillation System), Make: Borg Scientific in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 24. | For supply & installation of Atomic Absorption Spectrophotometer, Make: Shimadzu, Model: AA6880 in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |
| 25. | For supply & installation of Rotary Shaker (Heavy Duty)in the Department of Civil Engineering (CE) at NIT Mizoram, Aizawl | 1 | |

I/We have read and understand the tender for supply & installation of Equipments in the Environmental Engineering Laboratory of Department of Civil Engineering, NIT Mizoram vide No. NITMZ/D-64/2023/4455 Dated 16.03.2023 and other documents issued by you we hereby quote the Rates (inclusive of all taxes & duties) **except Goods** & Services Tax (GST) as above. GST Rates applicable shall bequotedseparately.

| Date: | [Signature] |
|--------|--------------------|
| Place: | Name of the Bidder |
| | Seal of the Bidder |