

NOTICE INVITING E- TENDERS

Registrar MNIT, JLN Marg, Jaipur invites online sealed tenders for the supply of “Equipments” for **Public Health Engineering Lab** in **Civil Engineering Department** of this Institute in **Two Bid System (Technical & Financial bids in separate envelope)** as per schedule given below. The complete Tender document can be viewed and downloaded only from the website (www.tenderwizard.com/MNITJ), (www.mnit.ac.in) and CPPP site <https://eprocure.gov.in/epublish/app> during the tender period. The intending bidders should submit the tender documents fee and EMD through DD Mode and to be handed over in the office of Deputy Registrar (S&P), MNIT, Jawahar Lal Nehru Marg, Jaipur -302017 (E-mail address storepurchase@mnit.ac.in) during office hours (9.30am to 6.00pm) on all working days. The tender processing fee is to be payable through e-payment, at the time of making online request.

Event	Date & Time
Download of Tender	20.08.2019
Pre-Bid Meeting Date & Time	29.08.2019 at 2.00 PM
Online Bid Submission Last Date & Time	12.09.2019 by 2.00 PM
Technical Bid Opening Date & Time	12.09.2019 at 3.00 PM
Financial Bid Opening	Will be intimated later on
Tender Fees	Rs. 500.00 (Non-refundable) in the name of The Registrar, MNIT and payable at Jaipur
Earnest Money	Rs.65,000/- in the name of The Registrar, MNIT and payable at Jaipur (Kindly attached the RTGS details with cancelled cheque along with the Earnest Money)
Last date and time for submission of hard copy of registration certificate (NSIC/MSME), tender fee and the earnest money	12.09.2019 by 2.00 PM
Tender Processing Fee (Non-refundable)	The tender processing fee is to be payable through e-payment, at the time of making online request.

INFORMATION AND INSTRUCTIONS TO VENDORS

1. To participate in the E-Tendering, it is mandatory for the bidder to have user ID & password, which has to be obtained by submitting **an annual registration** charges of Rs. 2000/-+GST @ 18.00% to ITI, through e-payment.
2. For any difficulty in downloading & submission of tender document at website www.tenderwizard.com/MNITJ, please contact at tenderwizard.com helpdesk no. 011- 49424365 or Sh. Deepak Jangid, M/s ITI Ltd: 91-9680005669
3. It is mandatory for all Tenderers to have Class-III Digital Signature Certified from any of the Licensed Certifying Agencies ('CA') to participate in E-Tendering of MNIT Jaipur, (Tenderer can see the list of Licensed CAs from the link www.cca.gov.in), in the name of the person who will submit the Online tender and is authorized to do so.Or if any support required on DSC, please contact back to us. (Help Desk No:-011-49424365)
4. Registration: The Bidder has to register (if not registered earlier) with our website www.tenderwizard.com/MNITJ with a non-refundable registration fee of Rs. . 2000/-+GST @ 18.00% to ITI, through e-payment.
The registration fee is payable once on a yearly basis. For Registered vendors: Renewal is required. The procedure for the registration is as under:
 - 1) Go to the [url:-www.tenderwizard.com/MNITJ](http://www.tenderwizard.com/MNITJ)
 - 2) In the home page, click on Vendor Registration
 - 3) In the Vendor Registration form, vendor has to fill up the applicant details, upload minimum any of three self-attested documents (PAN Card, Registration, DVAT, Goods and Service Tax Registration, Work Order), digital signature information.
4. After submission of the form, the User-id and Password are generated in the form of Acknowledgement.
5. Vendors Training: Please contact to Sh. Deepak Jangid, M/s ITI Ltd: M. No.91-9680005669

GENERAL TERMS & CONDITIONS

1. **THE RATES QUOTED SHOULD BE F.O.R. JAIPUR inclusive of all charges related to transportation from your end to MNIT, Jaipur in Indian rupees. For imported items, the rates are to be quoted CIF (Cost, Insurance & Freight) Delhi only in freely convertible foreign currencies. In case the rates are quoted CIF (Cost, Insurance & Freight) New Delhi, then it will be the responsibility of the supplier to intimate us well in advance prior to dispatch and submission of all the relevant documents in time which will be required in clearing the consignment from Custom. If, there is delay in sending the documents and demurrage is imposed, then it will be in the account of foreign supplier. Kindly note that if any amendment is required in LC, after its establishment, the Bank Charges in this respect will be in the account of beneficiary only.** The rates and units shall not be overwritten. Quotations shall always be both in the figures and words. The words "No quotations" should be written across any or all of the items in the schedule for which a tender does not wish to tender.
2. As far as possible, quotations should be given for goods of India manufacture which are readily available. Foreign goods quoted and proposed to be supplied should be covered by normal import quota of the dealer. This institute is exempted from payment of custom duty.
3. Detailed specifications and "make" of each item should be clearly given supported by the illustrated pamphlets wherever possible. Quotations without specifying the make and other particulars may be rejected. The accessories included in the equipment should also be clearly mentioned.
4. Losses or damage in transit will be in to the account of the supplier in case of rates **F.O.R. JAIPUR**. The supplier may, if he so desires, get the goods insured and include such charges in the tendered rate.
5. The payment for the ordered items would be made after the articles have been received, found in order and its successful installation. Payment will be made by RTGS to indigenous suppliers. Kindly send the RTGS details and cancelled cheque along with the Invoice. **The payment to foreign supplier will be made through FDD/Wire Transfer OR Letter of Credit as the case may be. However 90 present payment will be released after receipt of items and remaining 10 present after its successfully installation**
6. Your rates should be valid at least for three months (minimum) from the last date of opening of bid.
7. All legal proceedings, if necessity arises to institute may be any of the parties (Institute or Contractor/Supplier) shall have to be lodged in the courts situated at Jaipur and not elsewhere.
8. The institute is not bound to accept the lowest tender and may reject any tender or any part of the tender giving justification for such an action.

9. (a) The Penalty Clause is as under:-

If the seller fails to deliver any or all of the Goods/Services within the original /re-fixed delivery period specified in the Purchase Order, this Institute will be entitled to deduct/recover the Liquidated Damages for the delay at the following percentage:

(i)	Delay up to one month	1%
(ii)	Delay exceeding one month but not exceeding two month	2%
(iii)	Delay exceeding two month but not exceeding three month	5%
(iv)	Delay exceeding three month	5% for each month and part there of subject to maximum 10%

(b) In case of failure to supply the goods within the prescribed time and in accordance with the specifications give in the Quotations, the institute shall be free to cancel the order and make purchases from the next higher tenderer or from the open market as the case may be. In that case the loss sustained by the institute shall be recovered from the defaulting supplier. The institute will be at liberty to recover the loss from the permanent earnest money/or any other pending claims of the supplier without prejudice to its general right to affect recovery from the supplier.

10. The prospective bidders can be those who are the manufacturers of the equipment. For items manufactured outside India, the manufacturer itself can be a bidder or its authorised Indian agent can bid on behalf of its Principal that is the manufacturer.
11. In the event, the country of origin of goods is India, only the manufacturers shall be considered eligible for bidding. Authorised agents of Indian manufacturers may be permitted to submit the bid, provided the concerned manufacturer states that as its policy, it does not bid itself in India and that there is no qualitative difference between manufacturer and its agent as bidder in respect of quality of supplies, cost, and responsibility of maintenance and servicing. The Indian manufacturer must describe the alternatives in clear terms, in the event the bidding agent ceases to continue as agent of the concerned manufacturer within the stipulated warranty period.
12. If any Indian manufacturer requires importing an essential part from a foreign country, the said company may be given to enjoy the benefit of customs duty exemption with the aid of CDEC of MNIT, Jaipur provided the import of the concerned item is done on behalf of MNIT, Jaipur.

13. **THERE IS TWO BID SYSTEM:-**

(TECHNICAL AND FINANCIAL BID, both bids should be submitted in separate envelopes):

(A) Technical Bid:

- a) Bidder must be a manufacturer/authorized distributor/ Dealers and they have to enclose a certificate of authorization of manufacturer in format at **Annexure – A (Authorization certificate in any other format will not be valid)**. OEM itself or any one authorised dealer on behalf of OEM may participate in bid. OEM and its dealers both may not participate at the same time.
- b) The manufacturers should supply documentary proof i.e. Registration with the Registrar of Industries, National Small Scale Industries Corporation or with penal of MNIT in case of manufacturer. Offers other than the manufacturers should be supported with an authority

letter from the manufacturers, authorizing them to quote rates standing guarantee for the satisfactory execution of supply orders failing which offers are liable to be ignored.

- c) One declaration by the Manufacturer to the extent that in case of failure of its local agent /office to provide service support to the satisfaction of MNIT Jaipur, it shall make immediate arrangement for required service support.
- d) **Bidder should enclose technical compliance from the Manufacturer. The specifications of items should be strictly as specified. Deviation, if any may please be mentioned separately. If there is no deviation than it should be mentioned as “No Deviation”.**
- e) The leaflets catalogue, related to quoted equipment/model etc. should be sent invariably, so that a proper evaluation of the equipment offered is possible.
- f) Mention must be made of the pre-installation requirements for the equipment quoted viz. ambient temperature, humidity, weather specifications, power specifications, civil works etc. When items are provided full performance satisfaction should be demonstrated.
- g) Bidder must enclose the acceptance of terms and conditions and must enclose the duly signed and stamped tender document.
- h) All the Annexure enclosed should be duly filled up and signed.
- i) Please attach proof/certificate of each condition required in the tender document.

(B) Financial Bid:

- a) The bidders should clearly mentioned their payment terms & conditions
- b) The GST or any other taxes including Custom duty Etc. should be mentioned clearly
- c) The financial bid is to be submitted on excel sheet only

- 14. **Delivery Period:-**The ordered quantity of stores must be delivered within 6 to 8 weeks in the case of indigenous equipment and 14 to 16 weeks in the case of imported equipment after opening of L.C. / FDD and Wire Transfer. The extension of delivery period after placing the PO, if required, will be considered only on genuine reasons and proper justifications only.
- 15. **Installation:** - Successful BIDDER shall depute concerned specialist, for supervision of erection & commissioning of the machine to be carried out as and when necessary. The successful BIDDER shall make necessary arrangements during the entire warranty period at their own expenses for stay, transport and other expenses of their specialist during their stay in Jaipur;
- 16. **Warranty:** All the bidders are required to provide minimum **01 Year + 60 Days** warranty on the quoted equipment / instrument
- 17. **Performance Bank guarantee**
Successful Bidder has to Provide Performance security @ 10% of the equipment cost, valid for stipulated warranty period plus 60 days which should be in the form of Bank's Guarantee from a commercial bank in format at **Annexure – B**. Warranty will cover repair/replacement of all defective parts, if any, with the same or equivalent make for any part removed. Maintenance will be provided at site. The supplier will provide after sale service during the warranty period from nearest place to installation. The supplier will attend the complaint within 24 working hours and not beyond 5 working days.

18. **EARNEST MONEY**: A Demand Draft of Rs. **65,000/-** from a Commercial bank only in the name of the Registrar, M.N.I.T. and payable at Jaipur may please be sent at the office of Deputy Registrar (S&P), MNIT, Jawahar Lal Nehru Marg, Jaipur -302017 during office hours (9.30am to 6.00pm) on all working days prior to opening date of the tenders. **No tender shall be considered without earnest money / tender fee. Cheques are not accepted as earnest money amount.** No interest is paid by us on the amount of earnest money. **Kindly attached the RTGS details with cancelled cheque along with the Earnest Money.** Any bid security/EMD received by the institute after the due date for submission of bids prescribed by the institute is liable to be rejected. The firms registered with NSIC/MSME are exempted for furnishing of EMD / Tender Fee. The Hard copy of NSIC/MSME registration certificate is to be sent positively prior to opening of the tenders.
19. **Jurisdiction**: The Courts of Jaipur alone will have the jurisdiction to try any matter, dispute or difference between the parties arising out of this tender/contract. It is specifically agreed that no Court outside and other than Jaipur court shall have jurisdiction in the matter.
20. **Arbitration Clause**: - **In the eventuality of any dispute, the sole Arbitrator shall be MNIT, Jaipur and his decision shall be binding on all the parties.**
21. **Force Majeure** : Any failure of omission or commission to carry out the provision of this contract by the supplier shall not give rise to any claim by one party, one against the other, if such failure of omission or commission arises from an act of God; which shall include all acts of nature calamities such as fire, flood, earthquake, hurricane, or nay pestilence or from civil strikes, compliance with any statute and / or regulations of the Government, lockouts and strikes, riots, embargoes or from any political or other reason beyond the supplier's control including war (whether declared or not) civil war or stage of insurrection, provided that notice of the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to Force Majeure conditions.
22. **Risk & Cost** : In the event of failure to carry out the contractual obligations, within the stipulated period or extended period and determination of the contract for any reason, violation of warranties etc. the MNIT Jaipur shall have the right to carry out the unfinished obligation at the exclusive - cost and risk of the bidder/firm, after due notice and the difference so accrued shall be recoverable from the bidder/firm.
23. The material found defective upon opening by the supplier representative in presence of Central stores personnel / indenter of MNIT Jaipur or not as per tendered specifications will be lifted back at the cost and risk of the supplier. The material lying in MNIT Jaipur premises would be at supplier's risk and cost.
24. **Custom Duty** : The MNIT, Jaipur is a public funded research Institution registered with Department of Scientific & Industrial Research and concessional Custom Duty @5.15% is applicable for the goods purchased for research purpose vide Government of India Notification No.51/96-Customs dated 23.07.1996

25. **GST:** MNIT, Jaipur is a public funded research Institution registered with Department of Scientific & Industrial Research for concessional GST @5% applicable for the goods purchased for research purpose vide Ministry of Finance (Department of Revenue) Notification No.47/2017-Integrated Tax dated 14.11.2017 & Notification No.45/2017-Central Tax dated 14.11.2017.
26. **Bid Validity:** 90 days (Minimum)
27. **Opening of Bids:** The Bids shall be opened by authorised officials of the institute as per schedule given in Date Sheet. In case, the day of bid opening is declared a holiday by the government, the Bids will be opened on the next working day at the same time. No separate intimation shall be sent to the bidders in this regard. Only opening of bids and accepting the bid will not mean that the firm is technically or financially qualified.
28. **Institute right to vary Quantities at Time of Award or later :** Institute reserves the right at the time of awarding the contract to increase or decrease the quantity of goods and services originally mentioned in our NIT without any change in unit price or other terms and conditions.
29. While submitting the tender, the **GST Registration No., PAN No. & E-mail Address** is to be mentioned by the bidder positively. Failing this, there bid will be treated as non responsive.
30. **After Sales Service Certificate :** After sales service certificate is to be furnished by successful bidder in the prescribed form as **annexure –C**
31. Specification Enclosed as annexure - D

Deputy Registrar
(Store & Purchase)

MANUFACTURERS' AUTHORIZATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No. : [insert number from Invitation For Bids]

To : [insert complete name and address of Purchaser]

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 2.20 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, _____ [insert date of signing]

*(Not required in case the bidder itself is the manufacturer)

PERFORMANCE BANK GUARANTEE

(To be executed on Stamp Paper of Rs. 100/- or such higher value as per the Stamp Act of the State in which the Guarantee is issued. Stamp Paper should be in the name of the Bank Issuing the Guarantee.)

BANK GUARANTEE NO. :

DATED :

Dear Sirs,

1. THIS DEED OF GUARANTEE made on this day of..... between **MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY, JAIPUR** (hereinafter called the "MNIT" which expression shall unless excluded by or repugnant to the context includes its successors and assignees) of the one part and the (hereinafter called the "**Bank**" which expression shall unless excluded by or repugnant to the context include its successors and assignees) of the other part.

2. AND WHEREAS as per clause _____ of the purchase order in question the supplier shall furnish a Performance Bank Guarantee of 10% of P.O. Value i.e. Rs. (Rs.....

..... only) valid for the period of two months beyond warranty period as and by way of security for satisfactory working of the

..... AND WHEREAS at the request of the supplier, the Bank executes these presents.

3.0 THIS DEED WITNESSETH AND IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN PARTIES HERETO AS FOLLOWS:

3.1 The Bank hereby guarantees to the MNIT, Jaipur that the equipment / service contracted are capable of performing the work as demanded by the MNIT, Jaipur. In the event of equipment / service failing to perform to the satisfaction of the MNIT, Jaipur, which shall be final and conclusive of the factum of non-performance, the Bank shall indemnify and keep the indemnified to the extent of of P.O. Value i.e. Rs. (Rupees valid for the period of two months beyond the warranty period against any loss or damage that may be caused to or suffered by the MNIT, Jaipur consequent to non-performance of the contracted equipment / services to be supplied by the supplier.

3.2 In consideration of the aforesaid premise and at the request of the supplier, we the Bank hereby irrevocably and unconditionally guarantee that the supplier shall perform in an orderly manner their contractual obligations in accordance with the terms and conditions set forth in the Purchase order dated and in the event of the supplier's failure to do so, the Bank unconditionally pay to the MNIT, Jaipur on demand, any amount up to the value mentioned in Clause 3.1 above without any reference to the supplier and without questioning the claim.

3.3 The guarantee herein shall remain in full force for a period of two months beyond the warranty period from the date of certification by the MNIT, Jaipur of successful installation and commissioning of the equipment/ service contracted. Date of start of warranty period will be notified by MNIT, Jaipur to the Bank.

- 3.4 The decision of the MNIT, Jaipur regarding the liability of the Bank under the guarantee and the amount payable there under shall be final and conclusive and binding on us without question. The Bank shall pay forthwith the amount demanded by the MNIT, Jaipur not withstanding any dispute, if any, between the MNIT, Jaipur and the supplier.
- 3.5 The Bank further agrees that the guarantee herein shall remain in full force during the pendency of aforesaid period mentioned in Clause 3.3 above and also any extension of the guarantee which has been provided by the Bank for this purpose beyond the aforesaid period provided, further, that if any claim accrues or against the Bank by virtue of this guarantee, should be lodged with us within a period of 60 days from the date of expiry of the guarantee period.
- 3.6 This Guarantee shall not be affected by any change in constitution of the supplier, MNIT, Jaipur or us not shall it be affected by any change in constitution or by any amalgamation or absorption or reconstruction thereof otherwise, but will ensure for and be available to and endorsable by the absorbing amalgamated company or concern.
- 3.7 The MNIT, Jaipur has the fullest liberty without affecting the guarantee to postpone at any time or from time any of the powers exercisable by it against the supplier, either to enforce or forbear the clause governing guarantee in the terms and conditions of the said contract and Bank shall not be released from its liabilities under the guarantee by any matter referred to or by reason of time being given to the supplier or any other forbearance, act or omission on the part of the MNIT, Jaipur or any material or things whatsoever which under the law relating to sureties shall but for the provisions hereof have the effect of so releasing the Bank from its liabilities.
- 3.8 We further agree that the MNIT, Jaipur shall have the fullest liberty without affecting in any way our obligations hereunder with or without our consent or knowledge to vary any of the terms and conditions of the said contract or to extend the time of delivery from time to time.
- 3.9 The Bank undertakes not to revoke this guarantee during its currency except with the previous consent in writing of the MNIT, Jaipur.
- 3.10 We further agree that in order to give full effect to the guarantee herein contained MNIT, Jaipur shall be entitled to act as if we were its principal debtors in respect of its claim against the Supplier hereby guaranteed by us as aforesaid and we hereby expressly waive all our rights of suretyship and other rights if any which are in any way inconsistent with the above provision of this Guarantee.

Notwithstanding anything herein before, liability of the Bank under this guarantee is restricted to Rs. (Rupees only) and it will remain in force up to the period specified in Clause 3.3 unless a suit to enforce any claim under the Guarantee is filed against the Bank before the period specified in Clause 3.4. All your rights under this Guarantee shall be forfeited and we shall be relieved and discharged from all liabilities thereunder.

COUNTERSIGNED

Signature	:	Signature	:
Name	:	Name	:
Designation	:	Designation	:
Organization	:	Organization	:

AFTER SALE SERVICE CERTIFICATE

From:

To

The Registrar,
 Malaviya National Institute of Technology (MNIT),
 Jaipur

Whereas, we M/s (Bidder Name) are established & reputable manufacturers (Make of items) of [items name] having service offices at Delhi, Jaipur and in the state of Rajasthan. Details are as under:

Sr.No. Address of Service Centre Phone No. Number of Engineers

1.

2.

3.

 We do hereby confirm that:

Services including repair/replacement of defective parts will be done by us. Replacement of defective Systems/parts will be done by equivalent or better systems/parts of the same make. We will attend all the complaints/service calls within 24 working hours and not beyond 5 working days. Down time will not exceed beyond 5 working days. In case, down time exceed 5 working days then we will extend the warranty period of that item(s) double of the down time.

(Signature)

Name :

Designation :

(Head or Senior Executive of Firm)

Address :

Phone No :

Fax No:

Mobile No :

Technical Specifications of the Equipments

S.No.	Instrument	Specifications	Qty
1.	CO₂ + Temperature + Humidity Meter	<p>Measuring Range CO₂: 0 to 4,000 ppm; Temp: 0 °C to 50 °C,32 °F to 122 °F; RH: 10 % to 95 % R.H</p> <p>Accuracy CO₂: 1) ± 40 ppm for ≤1,000 ppm. Humidity ≥ 70% RH:± (3% reading + 1% RH),Temp:°C – 0.8 °C, °F – 1.5 °F.</p> <p>Resolution CO₂: 1 ppm; Temp: 0.1 degree; RH: 0.1 % R.H</p> <p>Display LCD size: 52 mm x 38 mm dual function LCD display.</p> <p>Operating Range Temp: 0 to 50 °C.Humidity Main instrument: Less than 85% R.H. CO₂ probe: Less than 85% R.H.</p> <p>Repeatability CO₂: ± 20 ppm for ≤ 3,000 ppm.</p> <p>Response Time < 2 min. typically.</p> <p>Power Supply DC 1.5 V battery (UM3, AA) x 6 pcs, or equivalent.</p> <p>Relay/ Alarm Alarm For CO₂ measurement only.</p> <p>Accessories Instruction manual, CO₂ probe, RH Probe, Hard Carrying case.</p>	01 Nos

2.	CO Meter	<p>Sensor Stabilized electro chemical gas specific</p> <p>Measurement Range 0 to 1000 ppm</p> <p>Display large LCD</p> <p>Response time <30s</p> <p>Fast sampling time 2 times/sec</p> <p>Display Large LCD</p> <p>Sensor life about 5 year</p> <p>Accuracy 5% (Accuracy is not affected by humidity, Small sensor drift, stable readings)</p> <p>Measurement Resolution 1 ppm</p> <p>Zero drift <5 ppm</p> <p>Auto power off after 15 mins of inactivity</p> <p>Alarm Audible</p>	01 Nos
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3.	Portable Photometer	<p>Battery Life 15 days (typical) @ 5 readings a day / 5 day week without backlight</p> <p>Battery Requirements 4, AA size alkali cells</p> <p>Cuvette Compatibility 10 mm square / 1 inch square and 13 mm / 16 mm / 1 inch round</p> <p>Data Logger 500 measured values (Result, Date, Time, Sample ID, User ID acc. to GLP)</p> <p>Detector Silicon photodiode</p> <p>Display Graphical display 240 x 160 pixel (LCD, b/w, backlit)</p> <p>Enclosure Rating IP67</p> <p>Interface USB type Mini IP67 (with optional Module)</p> <p>Operating Conditions 10 - 40 °C (50 - 104 °F), max. 80 % relative humidity (non-condensing)</p> <p>Operating Humidity max. 80 % relative humidity (non-condensing)</p> <p>Operating Mode Transmittance (%), Absorbance and Concentration</p> <p>Optical System Reference beam, spectral</p> <p>Photometric Accuracy ± 0.003 Abs @ 0.0 - 0.5 Abs</p> <p>Photometric Linearity < 0.5 % (0.5 - 2.0 Abs)</p> <p>Photometric Measuring Range 0 - 3 Abs (wavelength range 340 - 800 nm)</p> <p>Reproducibility ± 0.005 Abs (0 - 1 A)</p> <p>Sample Cell Compatibility 13 / 16 mm and 1 inch round adapter, 10 x 10 mm 1 inch square and 10x10mm</p> <p>Stray Light < 0.5 %T at 340 nm with NaNO₂</p> <p>User Programs 50</p> <p>Wavelength Accuracy ± 2 nm (range 340 - 800nm)</p> <p>Wavelength Calibration Automatic</p> <p>Wavelength Range 340 - 800 nm</p> <p>Wavelength Reproducibility ± 0.1 nm</p> <p>Wavelength Selection Automatic</p>	01 Nos
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4.	Dual Digester Block	<table border="0"> <tr> <td>Compliance Certifications</td> <td>CE</td> </tr> <tr> <td>Heating Rate</td> <td>20 to 150 °C in 10 minutes</td> </tr> <tr> <td>Number of cuvettes</td> <td>21 vials x 16 mm + 4 vials x 20 mm (dual block)</td> </tr> <tr> <td>Operating Temperature Range</td> <td>10 - 45 °C</td> </tr> <tr> <td>Power Requirements (Hz)</td> <td>50 - 60 Hz</td> </tr> <tr> <td>Power Requirements (Voltage)</td> <td>115 V AC</td> </tr> <tr> <td>Temperature Range</td> <td>37 - 165 °C (99 - 329 °F)</td> </tr> <tr> <td>Temperature Stability</td> <td>± 2 °C</td> </tr> </table>	Compliance Certifications	CE	Heating Rate	20 to 150 °C in 10 minutes	Number of cuvettes	21 vials x 16 mm + 4 vials x 20 mm (dual block)	Operating Temperature Range	10 - 45 °C	Power Requirements (Hz)	50 - 60 Hz	Power Requirements (Voltage)	115 V AC	Temperature Range	37 - 165 °C (99 - 329 °F)	Temperature Stability	± 2 °C	01 Nos
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5.	Total Nitrogen Unit (TNM- L) with AMC for 3 years	<table border="0"> <tr> <td>Detection Range</td> <td>5 µg/L to 10000 mg/L</td> </tr> <tr> <td>Method</td> <td>720 °C catalytic thermal decomposition/chemiluminescence</td> </tr> <tr> <td>Compatible With</td> <td>Shimadzu TOC-LCSH</td> </tr> <tr> <td>AMC of TNM-L and TOC LSH (full assembly)</td> <td>for 3 years</td> </tr> </table>	Detection Range	5 µg/L to 10000 mg/L	Method	720 °C catalytic thermal decomposition/chemiluminescence	Compatible With	Shimadzu TOC-LCSH	AMC of TNM-L and TOC LSH (full assembly)	for 3 years	01 Nos								
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Compatible With	Shimadzu TOC-LCSH																		
AMC of TNM-L and TOC LSH (full assembly)	for 3 years																		
6.	Simplified TKN Tests	<table border="0"> <tr> <td>Digestion Required</td> <td>Yes</td> </tr> <tr> <td>EPA compliant</td> <td>Yes</td> </tr> <tr> <td>Method Name</td> <td>Simplified TKN</td> </tr> <tr> <td>Number of tests</td> <td>100</td> </tr> <tr> <td>Parameter</td> <td>Nitrogen, Simplified Total Kjeldahl</td> </tr> <tr> <td>Range</td> <td>0 - 16 mg/L N</td> </tr> <tr> <td>Shelf Life</td> <td>At least 17 months from production date</td> </tr> </table>	Digestion Required	Yes	EPA compliant	Yes	Method Name	Simplified TKN	Number of tests	100	Parameter	Nitrogen, Simplified Total Kjeldahl	Range	0 - 16 mg/L N	Shelf Life	At least 17 months from production date	01 Nos		
Digestion Required	Yes																		
EPA compliant	Yes																		
Method Name	Simplified TKN																		
Number of tests	100																		
Parameter	Nitrogen, Simplified Total Kjeldahl																		
Range	0 - 16 mg/L N																		
Shelf Life	At least 17 months from production date																		

7.	Magnesium Tester	<p>Hardness, Magnesium Range 0.00 to 2.00 ppm</p> <p>Hardness, Magnesium Resolution 0.01 ppm</p> <p>Hardness, Magnesium Accuracy $\pm 5\%$ of reading ± 0.20 ppm</p> <p>Hardness, Magnesium Method Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, EDTA colorimetric method.</p> <p>Photometer/Colorimeter Light Source LED @ 525 nm</p> <p>Photometer/Colorimeter Light Detector silicon photocell</p> <p>Battery Type/Life (1) 1.5V AAA</p> <p>Automatic Shut-Off After ten minutes of non-use</p> <p>Environment 0 to 50°C (32 to 122°F); RH max 95% non-condensing</p> <p>Glass Cuvette with caps (10 mL) 4 nos.</p> <p>compatible with tester 25 tests</p> <p>Pre made Reagents 1 set</p> <p>Calibration Set</p>	01 Nos
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8.	Iron Tester	<p>Iron Range Iron Resolution Iron Accuracy Iron Method</p> <p>Photometer/Colorimeter Light Source Photometer/Colorimeter Light Detector Battery Type/Life Automatic Shut-Off</p> <p>Environment</p> <p>Pre made Reagents Calibration Set Cuvette Cleaning Solution</p>	<p>0.00 to 5.00 ppm 0.01 ppm ± 0.04 ppm $\pm 2\%$ of reading Adaptation of Standard Methods for the Examination of Water and Wastewater, 3500-Fe B., Phenanthroline Method</p> <p>LED @ 525 nm silicon photocell (1) 1.5V AAA after three minutes of non-use and two minutes after reading</p> <p>0 to 50°C (32 to 122°F); RH max 95% non-condensing 25 tests 1 set 230 mL</p>	01 Nos
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9.	Calcium Tester	<p>Hardness, Calcium Range Hardness, Calcium Resolution Hardness, Calcium Accuracy Hardness, Calcium Method</p> <p>Photometer/Colorimeter Light Source Photometer/Colorimeter Light Detector Battery Type/Life Automatic Shut-Off Environment</p> <p>Pre made Reagents Calibration Set</p>	<p>0.00 to 2.70 ppm 0.01 ppm ±5% of reading ± 0.20 ppm adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Calmagite method. The reaction between calcium and reagents causes a reddish-violet tint in the sample. LED @ 525 nm silicon photocell (1) 1.5V AAA after ten minutes of non-use 0 to 50°C (32 to 122°F); RH max 95% non-condensing 25 tests 1 set</p>	01 Nos
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10.	Manganese Tester	Manganese Range Manganese Resolution Manganese Accuracy Manganese Method Photometer/Colorimeter Light Source Photometer/Colorimeter Light Detector Battery Type/Life Automatic Shut-Off Environment Pre made Reagents Calibration Set	0.0 to 20.0 ppm 0.1 ppm ±5% of reading ± 0.2 ppm adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Periodate method. LED @ 525 nm silicon photocell (1) 1.5V AAA after ten minutes of non-use 0 to 50°C (32 to 122°F); RH max 95% non-condensing 25 tests 1 set	01 Nos
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11.	Chromium Tester	<p>Chromium, Hexavalent Range 0 to 999 ppb</p> <p>Chromium, Hexavalent Resolution 1 ppb</p> <p>Chromium, Hexavalent Accuracy ± 5 ppb $\pm 4\%$ of reading</p> <p>Chromium, Hexavalent Method adaptation of the ASTM, Manual of Water and Environmental Technology, D 1687-92, Diphenylcarbohydrazide method.</p> <p>Photometer/Colorimeter Light Source LED @ 525 nm</p> <p>Photometer/Colorimeter Light Detector silicon photocell</p> <p>Battery Type/Life (1) 1.5V AAA</p> <p>Automatic Shut-Off after ten minutes of non-use</p> <p>Environment 0 to 50°C (32 to 122°F); RH max 95% non-condensing</p> <p>Pre made Reagents 25 tests</p> <p>Calibration Set 1 set</p>	01 Nos
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12.	Color of Water Tester	<p>Color, Water Range Color, Water Resolution Color, Water Accuracy Color, Water Method</p> <p>Photometer/Colorimeter Light Source Photometer/Colorimeter Light Detector Battery Type/Life Automatic Shut-Off Environment</p> <p>Pre made Reagents Calibration Set</p>	<p>0 to 500 PCU 5 PCU ± 10 PCU $\pm 5\%$ of reading adaptation of the Standard Methods for the Examination of Water and Wastewater, 21st edition, Colorimetric Platinum Cobalt method. LED @ 470 nm</p> <p>silicon photocell</p> <p>(1) 1.5V AAA after ten minutes of non-use 0 to 50°C (32 to 122°F); RH max 95% non-condensing</p> <p>25 tests 1 set</p>	01Nos
13.	Nitrite Tester	<p>Nitrite Range Nitrite Resolution Nitrite Accuracy Nitrite Method Photometer/Colorimeter Light Source Photometer/Colorimeter Light Detector Battery Type/Life Automatic Shut-Off Environment</p> <p>Pre made Reagents Calibration Set</p>	<p>0 to 150 ppm 1 ppm ± 3 ppm $\pm 5\%$ of reading adaptation of the Ferrous Sulfate method LED @ 575 nm</p> <p>silicon photocell</p> <p>(1) 1.5V AAA after ten minutes of non-use 0 to 50°C (32 to 122°F); RH max 95% non-condensing</p> <p>25 tests 1 set</p>	01 Nos

14.	Ammonia Tester	<p>Ammonia Range Ammonia Resolution Ammonia Accuracy Ammonia Method</p> <p>Photometer/Colorimeter Light Source Photometer/Colorimeter Light Detector Battery Type/Life Automatic Shut-Off Environment</p> <p>Pre made Reagents Calibration Set</p>	<p>0.0 to 99.9 ppm as NH₄⁺ 0.1 ppm ±1.0 ppm ±5% of reading adaptation of the ASTM Manual of Water and Environmental Technology D1426-92, Nessler Method. The reaction between ammonia and reagents causes a yellow tint in the sample.</p> <p>LED @ 470 nm silicon photocell</p> <p>(1) 1.5V AAA after ten minutes of non-use 0 to 50°C (32 to 122°F); RH max 95% non-condensing</p> <p>25 tests 1 set</p>	01 Nos
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15.	COMBINED SAMPLER (PM10+ PM2.5 + GASEOUS)	<p>Flow Rate</p> <p>Particle Size</p> <p>PM10 Impactor</p> <p>PM2.5 Impactor</p> <p>Gaseous attachment</p> <p>Flow Record</p> <p>Dry Gas Meter</p> <p>Operation</p>	<p>PM10 16.7m³/hr. (Constant Flow Maintained with the help of Orifice) PM2.5 16.7m³/hr. (Constant Flow Maintained with the help of Orifice)</p> <p>Particles of 10 microns and below collected on standard glass micro fibre filter paper Of 47mm diameter fitted below single stage impactor. While particles of 2.5 microns Are collected in a separate 46.2 mm diameter PTFE membrane filter fitted at the Bottom off WINS impactor of two stage impactor.</p> <p>Single stage matching to European Design</p> <p>two stage as per USEPA Published Designs (Federal Register 40 CFR part 50)</p> <p>for SO_x, NO_x, Ammonia, Ozone and others. Gaseous (4 any Gas) with Manifold and 0 to 3 lpm Rotameter</p> <p>Independent Flow Indicator for PM10 & PM2.5 streams to display air sampling flow Rates passing through filters accurately</p> <p>Total Volume (PM 10 & PM2.5)</p> <p>24 hours continuously</p>	02 Nos
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16.	Spectro photometer	<table border="0"> <tr> <td data-bbox="555 135 958 183">Photometric System</td> <td data-bbox="958 135 1872 183">Double beam optics</td> </tr> <tr> <td data-bbox="555 183 958 231">Detector</td> <td data-bbox="958 183 1872 231">Photomultiplier</td> </tr> <tr> <td data-bbox="555 231 958 391">Light source</td> <td data-bbox="958 231 1872 391">Halogen lamp or Deuterium lamp or tungsten lamp light source auto position adjustment</td> </tr> <tr> <td data-bbox="555 391 958 438">Measurement range</td> <td data-bbox="958 391 1872 438">185 to 900nm or better</td> </tr> <tr> <td data-bbox="555 438 958 486">Wavelength accuracy</td> <td data-bbox="958 438 1872 486">± 0.3nm or better</td> </tr> <tr> <td data-bbox="555 486 958 534">Wavelength repeatability</td> <td data-bbox="958 486 1872 534">< 0.1 nm</td> </tr> <tr> <td data-bbox="555 534 958 582">Baseline flatness</td> <td data-bbox="958 534 1872 582">± 0.001 Abs.</td> </tr> <tr> <td data-bbox="555 582 958 630">Spectral bandwidth</td> <td data-bbox="958 582 1872 630">1 mm or better</td> </tr> <tr> <td data-bbox="555 630 958 678">Resolution</td> <td data-bbox="958 630 1872 678">0.1nm</td> </tr> <tr> <td data-bbox="555 678 958 726">Stray light</td> <td data-bbox="958 678 1872 726"><0.03 %T</td> </tr> <tr> <td data-bbox="555 726 958 774">Scanning speed</td> <td data-bbox="958 726 1872 774">Fast, medium, slow</td> </tr> <tr> <td data-bbox="555 774 958 885">Photometric modes</td> <td data-bbox="958 774 1872 885">Absorbance (Abs), Transmittance(%T), Energy(E)</td> </tr> <tr> <td data-bbox="555 885 958 981">Photometric range</td> <td data-bbox="958 885 1872 981">Absorbance: -3 to 3 Abs or better; 0-200 %T</td> </tr> <tr> <td data-bbox="555 981 958 1029">Photometric Repeatability</td> <td data-bbox="958 981 1872 1029">± 0.1 %T</td> </tr> <tr> <td data-bbox="555 1029 958 1077">Photometric accuracy</td> <td data-bbox="958 1029 1872 1077">± 0.2 %T</td> </tr> <tr> <td data-bbox="555 1077 958 1125">Output</td> <td data-bbox="958 1077 1872 1125">RS232/ USB</td> </tr> <tr> <td data-bbox="555 1125 958 1173">Power requirements</td> <td data-bbox="958 1125 1872 1173">AC 220 V/ 50 Hz</td> </tr> <tr> <td data-bbox="555 1173 958 1220">Display</td> <td data-bbox="958 1173 1872 1220">Capacitive touch screen or better</td> </tr> </table>	Photometric System	Double beam optics	Detector	Photomultiplier	Light source	Halogen lamp or Deuterium lamp or tungsten lamp light source auto position adjustment	Measurement range	185 to 900nm or better	Wavelength accuracy	± 0.3nm or better	Wavelength repeatability	< 0.1 nm	Baseline flatness	± 0.001 Abs.	Spectral bandwidth	1 mm or better	Resolution	0.1nm	Stray light	<0.03 %T	Scanning speed	Fast, medium, slow	Photometric modes	Absorbance (Abs), Transmittance(%T), Energy(E)	Photometric range	Absorbance: -3 to 3 Abs or better; 0-200 %T	Photometric Repeatability	± 0.1 %T	Photometric accuracy	± 0.2 %T	Output	RS232/ USB	Power requirements	AC 220 V/ 50 Hz	Display	Capacitive touch screen or better	01 Nos
Photometric System	Double beam optics																																						
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Display	Capacitive touch screen or better																																						

17.	Water purification System	Manual dispense flow rate Automatic dispense volume Resistivity TOC Bacteria Pyrogens (endotoxins) RNases DNases Electrical power supply voltage Electrical power supply frequency Compliance Accessories	Adjustable between 50 and 2000 mL/min 100 mL to 60 L 18.2 MΩ.cm at 25 °C ≤ 5 ppb (µg/L) < 0.1 cfu/mL < 0.001 Eu/mL (pyrogen-free) < 0.01 ng/mL (RNase-free) < 4 pg/mL (DNase-free) 100 – 230 V ± 10 % 50 – 60 Hz ± 10 % ISO, CE, ULC certified All the necessary accessories to be provided. The system should have real time monitoring of resistivity/conductivity/TOC/temperature and volume to be dispensed. System should be supplied with pre-filtration unit consisting of 10, 5 & 1 micron filter and booster pump.	01 Nos
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18.	Turbidity meter	Range Resolution Accuracy @25°C/77°F Stray Light Light Detector Light Source Lamp Life Method Calibration LOG Memory Serial Interface Environment Power Supply	0.00 to 9.99; 10.0 to 99.9 and 100 to 1000 NTU (Range Selection automatic) or better 0.01 NTU from 0.00 to 9.99 NTU; 0.1 NTU from 10.0 to 99.9 NTU;1 NTU from 100 to 1000 NTU or better ±3% or better < 0.02 NTU Silicon photodiode Tungsten filament lamp or better greater than 100,000 readings Nephelometric Method (90°), ratio of scattered and transmitted light;Adaptation of the USEPA Method 180.1 or Standard Method 2130 B or ISO 7027. 2-5 points calibration or better 200 or more records USB or RS232 Up to 50°C (122°F); RH max 95% non-condensing 1.5V AA alkaline batteries (4) or AC adapter or better; auto-off mode	01 Nos
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19.	Weighing Balance	<p>Calibration</p> <p>Capacity</p> <p>Display</p> <p>Pan size</p> <p>Readability</p> <p>Power requirement</p>	<p>Motorized internal calibration</p> <p>ISO compliant</p> <p>200 g or better</p> <p>LCD</p> <p>100 mm</p> <p>0.000001 g</p> <p>220/230 volts, 50Hz AC supply</p>	01 Nos
20.	Muffle Furnace	<p>Design</p> <p>Temperature maximum</p> <p>Working temperature</p> <p>Accuracy</p> <p>Outer body</p> <p>Temperature controller</p> <p>Insulation</p> <p>Power supply</p>	<p>Compact, table mounted</p> <p>1950°C</p> <p>1150°C</p> <p>±1% or better</p> <p>Mild steel</p> <p>Microprocessor based PID temperature controller</p> <p>Ceramic blanket</p> <p>220 V AC/ 50 Hz</p>	01 Nos

21.	BOD Incubator	<p>Double/Triple walled BOD Incubator operative in the temperature range of 5°C to 60°C or more and capable of controlling temperature with an accuracy of +/- 0.5°C or better and usable to grow and maintain microbiological culture.</p> <p>Shelves: Removable shelves, 2 No made of 316 SS</p> <p>Work Space 450 ltr capacity</p> <p>Properly sealed with food grade silicone elastomer</p> <p>Full length transparent door to have a clear inner view of the samples</p> <p>Heating element: Nichrome wire placed on both sides</p> <p>Provision for air circulation from the top/back</p> <p>Temperature control: PID controller with alarm</p> <p>Safety: Capillary type thermostat to take care of any temperature overshoots/ failure of PID controller</p> <p>Operation: 230 V AC single phase 50 Hz, 1500 W</p> <p>Microprocessor based control system with Digital LED display of temperature</p> <p>ISO certified</p> <p>Free installation if any and free demonstration</p> <p>CFC Free cooling system. R134 eco-friendly refrigerant</p>	01 Nos
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22.	UV Sensor	Output (Sensitivity) Resolution Calibration Factor (Reciprocal of Output) Calibration Uncertainty Measurement Repeatability Long-term Drift (Non-stability) Non-linearity Response Time Field of View Spectral Range Directional (Cosine) Response Temperature Response Operating Environment	0.2 mV per $\mu\text{mol m}^{-2} \text{ s}^{-1}$, 0.61 mV per W m^{-2} 0.1 W m^{-2} 5 $\mu\text{mol m}^{-2} \text{ s}^{-1}$ per mV, 1.65 W^{-2} per mV $\pm 10 \%$ Less than 1 % Less than 3 % per year Less than 1 % (up to 300 $\mu\text{mol m}^{-2} \text{ s}^{-1}$) Less than 1 ms 180° 250 to 400 nm $\pm 10 \%$ at 75° zenith angle Approximately 0.1 % per C -40 to 70 C, 0 to 100 % relative humidity	01 Nos
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23.	TDS Meter	<p>Portable meter with probe of EC, pH and TDS</p> <p>Resolution: pH = 0.1, EC =0.01 mS/cm TDS = 1 ppm or better</p> <p>Range: pH = 0-14, EC:0.00 to 4.00 mS/cm, TDS =0 to 19999 ppm, or better</p> <p>Display: LCD</p> <p>Calibration: Manual, 1 point</p> <p>Accuracy for EC and pH: +/- 2% F.S.</p> <p>Battery type: 9V</p>	01 Nos
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Deputy Registrar
(Store & Purchase)