No.: 1738/Purchase Office/Biotech/Water Purification System etc./2014 Dated: 14/02/2014

Telephone : 91-532-227+1122, 1123 Fax

GRAM

Email

Website

: 0532-2545341, 2545822 : MNNIT

: http://www.mnnit.ac.in : spo@mnnit.ac.in,

मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद, इलाहाबाद–211004 (भारत)

Motilal Nehru National Institute of Technology Allahabad Allahabad-211004 (India)

An Institute of National Importance as Declared by NIT Act, GOI, 2007

# fip@mnnit.ac.in INVITATION FOR SUPPLY OF VARIOUS LAB EQUIPMENTS (For Contracts value estimated to cost less than Rs.25 lakhs)

1	Closing Date/Time for submission of Quotations	11/03/2014; 12:00 Hrs.
2	Opening Date/Time of Quotations	11/03/2014; 12:30 Hrs.
3	Quotations to be submitted at	The Office of Faculty-In-charge (Purchase) M.N.N.I.T. Allahabad, Allahabad-211 004 (U.P.)
4	Place of opening of quotations	The Office of Faculty-In-charge (Purchase) M.N.N.I.T. Allahabad, Allahabad-211 004 (U.P.)
5	Tender Fee	Rs. 200.00 (Non-refundable), in form of a Demand Draft drawn in favor of DIRECTOR, MNNIT Allahabad.
6	Earnest Money Deposit (EMD)	<b>Rs. 40,000/- (Rs. Forty Thousand only</b> ), in form of FDR/Bank guarantee, from any of the Commercial Banks, drawn in favour of "Director, MNNIT Allahabad" payable at Allahabad, and valid for a period of 45 days beyond the final bid validity period.

To,

## **Dear Sir**

You are invited to submit your most competitive quotation for the following items. The quotation should be sent directly to the undersigned under Sealed Cover marked "Quotation Reference No., Date", and "The Due Date:

SI. No.	Description of item with Specification	Quantity (No.)
	DIFFERENT LAB EQUIPMENTS	
1		As per Annexure-B
	Full Details of items and Specification as per ANNEXURE 'B'	

The sealed tenders must be submitted in the Office of the Faculty In-charge (Purchase), on or before due date & time as mentioned above in the office of the undersigned, in the presence of bidder's authorized representatives, who choose to attend and shall sign a register evidencing their attendance.

The tender/quotations NOT submitted in the prescribed format or Incomplete in any respect will be outrightly rejected.

Faculty in-Charge, Purchase MNNIT Allahabad

# **INSTRUCTIONS/GUIDELINES TO BIDDERS (ITB)**

- 1. Only bidders, who fulfill the ELIGIBILITY CRITERIA, as given in this tender document, should apply.
- 2. The bidders should enclose relevant documents wherever necessary to substantiate their eligibility.
- 3. The bidder should enclose the cliental list with contact address along with Phone/Fax for reference, for the quoted item.
- 4. The Bidders must submit their Quotation with EMD in the form of Demand Draft/ Bank Guarantee/ Short term Deposit of the cost of Printing Works/items in favor of "The Director, MNNIT, Allahabad" payable at Allahabad. Quotation without EMD will be summarily rejected. EMD's of all Bidders will be returned back after the purchase order /contract agreement is issued to successful bidder.
- 5. Successful Bidders must have to submit the performance security @ 10% of the purchase order or contract value and it will be retained up to the warranty period.
- 6. MNNIT ALLAHABAD reserves the right to reject, accept any or whole or part of any of the tender without assigning any reason thereof and no claim will be heard. In case of dispute, the decision of The Director, MNNIT Allahabad will be final and binding.
- 7. If the successful bidder is not able to complete the supply & Installation work within the delivery date specified in the purchase order, the purchase order will be automatically treated as cancelled after expiry of delivery date period. The vendor will have to submit an undertaking in this regard that this condition is acceptable to him. In case of extra ordinary circumstances the vendors must send a request for extension of validity of purchase orders, with proper justification prior to the expiry of validity date for consideration.
- 8. The quotation must be accompanied by leaflets/operation manuals/books etc.
- 9. The Bidder is expected to examine all instructions, forms, terms and specifications in the Bid Documents. Failure to furnish all information required as per the Bid Documents or submission of bids which are not substantially responsive to the Bid Documents in every respect may result in rejection of the bid.
- 1. Bidders who had supplied the Government departments, PSUs/NITs/IITs/IIITs and reputed Institutions and Organizations should only apply.
- 2. The bidder should enclose the cliental list with contact address along with Phone/Fax for reference, for the quoted item.
- 3. Please quote the prices F.O.R. Motilal Nehru National Institute of Technology Allahabad (MNNIT ALLAHABAD), Allahabad ONLY.

[NOTE: Custom/Excise Duty Exemption Certificate will be provided by MNNIT Allahabad after receiving your request letter for the same.

- MNNIT Allahabad avails Custom Duty Exemption in terms of Government Notification N. 51/96-Customs dated 23 July, 1996, and Central Excise Duty Exemption in terms of Government Notification N. 10/97-Central Excise dated 01 March, 1997, as amended from time to time.
- 4. The bidder should enclose relevant documents wherever necessary to substantiate his eligibility.
- 5. The Institute is eligible for and can provide necessary documentation for Custom/Excise and Octroi exemption on demand, if permitted under rule.
- 6. In case of sophisticated items, an on-site training needs to be provided with no extra cost.
- 10. Wherever applicable the vendors must quote the branded /desired items.

# **GENERAL TERMS & CONDITION (GCC)**

## 1. Eligibility Criteria:

- i. Firm/bidders blacklisted at any stage or by any NITs/IITs/ Central Universities/ IISERs/CSIR/ labs or Central/State Government body/PSUs etc. need not to apply.
- The bidder should be an Indian registered company engaged in respective area of works with minimum experience of 05 (FIVE) years. The bidder should have sufficient Infrastructure, technical expertise and financial strength to undertake the contract.
- iii. **Minimum AVERAGE** <u>ANNUAL</u> **TURNOVER** of **Rs. 50 lakh** in the last 3 financial years. (Balance sheet/CA certificate to be enclosed, duly supported by the income tax return for financial years 2010-11, 2011-12, 2012-13).
- iv. The bidder should have experience of similar Work experience with at least 10 academic organization of higher education, in last 05 years. Out of which at least 05 should be NITs/IITs /IISERs/IIITs/IIMs and other Top ranking management schools. The nature of completed work should be supply & satisfactory installation in various Government Institutes/Firms/PSUs. [NOTE: The documentary proof of <u>Purchase orders</u> as well as <u>payments thereof</u> in respect of works mentioned in bid <u>MUST</u> be submitted along with the bid.]
- v. The Bidder/Tenderer should provide the following mandatory information:
  - a. Bidder/Tenderer must provide the information on the similar works completed successfully & satisfactory in last 3 years. Bidder/Tenderer must submit satisfactory documentary proof from end-users.
  - b. List of Organizations/Customers dealt by them.
  - c. Last Three year's copies of Income Tax Return Form and PAN number, as per government norms.
  - d. Copy of Registration of Firm with CST/GST Nos.

# NOTE

- i. The work executed in the own name of the bidder only will be considered for similar works, to meet the eligibility criteria. JVs / Consortiums / MOUs shall not be considered.
- ii. Tenderer should submit documents in support of minimum eligibility criteria along with the tender/bid. NO document in support of minimum eligibility criteria will be accepted / entertained after opening of tender.
- iii. Tenders/bids not meeting any of the above 'Eligibility Criteria' shall be rejected.

## 2. Bid Price

- (a) The total contract price shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- (b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.
- (c) The quoted total contract price shall be fixed for the duration of the contract and shall not be subject to any adjustment.
- (d) The prices should be quoted in Indian Rupees only for indigenous items.
- (e) Each bidder shall submit only one quotation.

### 3. Validity of Quotation

The tender offer shall remain valid for 120 days from the date of opening of Technical bid (part-1) of this tender.

### 4. Evaluation of Quotations

- (a) Any items left blank, will be treated as incomplete bid and liable to be rejected.
- (b) The purchaser will evaluate and compare the quotations determined to be substantially responsive, i.e., which
  - (i) are properly signed; and conform to the terms and conditions, and specifications.
  - (ii) will be with tender fees, and EMD required, if any.
  - (iii) Ink seal & sign on every page of tender document.
  - (iv) conform to the terms and conditions, and specifications.
  - (v) The Quotations would be evaluated separately for each item.

### 5. Award of Contract

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

- Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding
  process and reject all quotations at any time prior to the award of contract.
- The bidder whose bid is accepted will be notified for the award of contract by the Purchaser prior. The terms of the accepted offer, if falling under Govt. purchase rules, i.e., GFR-2005, shall be incorporated in the purchase order.

### 6. Formats and Signing of Bid

- Each & every pages of the submitted bid must carry the page numbers.
- The bidders are not allowed to make additional and alteration in the tender document, any additions and alteration in the tender document, any additions and alterations shall be at bidder's risk. Conditional/modified tender are liable to be rejected.
- The tender/quotations NOT submitted in the prescribed format or Incomplete in any respect will be outrightly rejected.
- If the bid submitted without compliance sheet details of Printing Works the bid will be outrightly rejected.
- The bid shall be typed or written in indelible ink and shall be signed by the Bidder/Tenderer or a person or persons duly authorized to bind the Bidder/Tenderer to the Contract. All pages of the bid, except for unamended printed literature, **must** have <u>Signature (in ink, with date) & Seal of Bidder/Tenderer.</u>
- Any interlineations, erasure or overwriting shall be valid only if they are initiated by the persons or persons signing the bid.
- The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.
- 7. <u>Payment condition:</u> 100% Payment shall be made only after supply the items in good condition alongwith successful delivery of items and satisfactory Installation report receive by competent authority. **No advance payment will be made.**
- 8. Normal Commercial warranty/guarantee shall be applicable to the supplied goods, (*If warranty/Guarantee is not mention in specifications of respective items*).

## SPECIFIC TECHNICAL CONDITIONS (STC)

- 1. The delivery of items securely and neatly packed should be made at MNNIT Allahabad.
- 2. All duties, Taxes and other levies payable by the bidder under the Contract shall be included in the Total Price.
- 3. Please quote the prices F.O.R. Motilal Nehru National Institute of Technology Allahabad (MNNIT ALLAHABAD), Allahabad ONLY.
- 4. You are required to return the original tender document (all the pages as it is duly signed by you on every page for your record), You may retain a copy of this tender enquiry for your record.
- 5. The bidder should be last 5 years in existence in India.
- 6. Incomplete or conditional bid will not be accepted.
- 7. The tenderer should have the capability to distribute finished work to the specified destinations by Road Transport /Courier within the stipulated time schedule.
- 8. The Director MNNIT Allahabad reserves the right to accept or reject the tender at any stage without specifying any reason.
- 9. Compliance to above General terms & Conditions (GTC) and Specific Technical Conditions (STC), will be considered for overall evaluation of the bid and non-compliance of any of the above technical terms & conditions/specifications may turn into rejection.
- 10. The Bidder/Tenderer must agree to all the technical terms and conditions of the offer, as mentioned in the technical proposal and no such additional terms & conditions from Bidder/Tenderer will be accepted, at a later stage.
- 11. The Bidder/Tenderer is required to quote for supply the items as listed in specifications along with compliance of the terms and conditions. <u>Compliance to above Specific Technical Conditions</u>, given as <u>Annexure: B</u>, will be considered for overall evaluation of the bid and non-compliance of any of the above technical terms & conditions/specifications may turn into rejection.

## **SCOPE OF WORKS**

The work includes the following:

- (1.) The supply and installation of equipment with accessories.
- (2.) Testing of equipment.
- (3.) to provide, one copy each of following documentation (on CD/DVD and printed manual, both)
  - a) installation manual,
  - b) operating manual, and
  - c) Service Manual.
- (4.) Repair/Refurnishing work to restore the damage caused due to cabling or any other work related to installation.
- (5.) Any other work required for equipment making functional up to the satisfaction of MNNIT Allahabad.

Place:

Date:

# CHECK LIST (ON THE LETTER HEAD OF THE BIDDER)

The Bid will be the compilation of following documents, along with required supporting documents. No document in support of minimum eligibility criteria will be accepted / entertained after opening of tender.

SI. No	Documents
1.	Cover letter by bidder (On the Letter Head of the Bidder)
2.	Tender Fee
3.	Earnest Money Deposit (EMD), if required
4.	Cliental List for quoted item
5.	Annexure-A : Bid Proposal Sheet (On the Letter Head of the Bidder)
6.	Annexure-B : Technical Specification of Equipments
7.	Annexure-C : Affidavit regarding Blacklisting form
8.	Annexure-D : Technical compliance of Equipments
9.	Annexure-E : PRICE BID (On the Letter Head of the Bidder)

#### **ANNEXURE-A**

# BID PROPOSAL SHEET (ON THE LETTER HEAD OF THE BIDDER)

То

Faculty In-charge (Purchase)

MNNIT Allahabad, Allahabad

Subject: Supply of "Different Lab Equipments" at MNNIT Allahabad, Allahabad.

Dear Sir,

We, the undersigned Tenderers, having read and examined in detail the specifications as specified in this document in respect of Supply of **Micro-reactor Test Rig** at MNNIT Allahabad, Allahabad do hereby propose to supply the required products and services.

Tender No	).			
Tender Fees submitted		YES / NO	(Please strike off whate	ever is not applicable)
Amount Mode		Date of Issue	Name of Bank	Valid up to
	Demand Draft			
EMD submitted		YES / NO	(Please strike off whate	ever is not applicable)
Amount	Mode	Date of Issue	Name of Bank	Valid up to
	Demand Draft			

(i) ADDITIONAL PURCHASE/WORK ORDER: We understand that the MNNIT Allahabad, Allahabad, in case of the requirements may also place repeat purchase order/work order on the company. In such cases, we shall accept and execute all the purchase/work order placed on us by MNNIT Allahabad, Allahabad.

(ii) BID PRICING: We further declare that the prices stated in our proposal are in accordance with your Terms & Conditions in the bidding document. We further understand that the quantities as specified in this Tender may increase or decrease at the time of Award of Purchase Order as per the requirements of MNNIT Allahabad, Allahabad.

- (iii) QUALIFYING DATA: We confirm that we satisfy the qualifying criteria and have attached the requisite documents as documentary proofs. In case you require any further information/documentary proof in this regard during evaluation of our bid, we agree to furnish the same in time to your satisfaction.
- (iv) **CONTRACT PERFORMANCE SECURITY:** We hereby declare that in case the contract is awarded to us, we shall submit the performance Guarantee Bond in the form of Bank Guarantee for the amount of 10% of the total order value.
- (v) PAYMENT TERMS: We hereby declare that in case the contract is awarded to us, we agree with payment terms specified in the tender documents.

#### (vi) CERTIFICATE AND DECLARATION:

- a) I/We certify that no addition/modification/alteration has been made in the Original Tender Document. If at any stage addition /modification /alteration is noticed in the Original Document, I/We will abide by the terms and conditions contained in the original tender document, failing which MNNIT Allahabad reserves the right to reject the tender and/or cancel the contract
- b) It has been certified that all information provided in tender form is true and correct to the best of my knowledge and belief. We hereby declare that our proposal is made in good faith, without collusion or fraud. No forged /tampered document(s) are produced with tender form for gaining unlawful advantage. We understand that MNNIT Allahabad is authorized to make enquiry to establish the facts claimed and obtained confidential reports from clients.
- c) In case it is established that any information provided by us is false / misleading or in the circumstances where it is found that we have made any wrong claims. Further MNNIT Allahabad is also authorized to blacklist our firm/company/agency and debar us in participating in any tender/bid in future.
- d) I / We assure the Institute that neither I /We, nor any of my /our workers, will do any act which is improper / illegal during the execution in case the tender is awarded to us.
- e) I / We assure the Institute that I / We will NOT be outsourcing any work specified in the tender document, to any other firm.
- f) Neither I / We, nor anybody on my /our behalf will indulge in any corrupt activities /practices in my /our dealing with the Institute.
- g) Our Firm / Company / Agency is not been blacklisted or banned by any Govt. Department, PSU, University, Autonomous Institute or any other Govt. Organization.
- h) I/We certify that, I have understood all the terms & conditions (GCC and ITB etc.), as indicated in enquiry of the tender document, and hereby accept all the same completely.
- i) I/We, further certify that I/We, possess all the statutory /non-statutory registrations, permissions, approvals, etc., from the Competent Authority for providing the requisite services,
- j) We understand that you are not bound to accept the lowest or any bid you may receive.
- k) I/We hereby declare that this tender on acceptance communicated by you shall constitute a valid and binding contract between us.
- I) I/We certify that the submitted quotation is duly paginated and contains from page no. 1 to .....

# ANNEXURE-'B'

# **Technical Specifications of 'DIFFERENT LAB EQUIPMENTS'**

-		cal Specifications of 'DIFFERENT LAB EQUIPMENTS'	I _
S. No	Name of	Specifications	Quantity
5. <u>No.</u> 1	Water purification system (molecular biology grade)	<ol> <li>Specifications</li> <li>Should contain pre treatment unit, a RO based water purification system, ultra purification unit and purified water storage tanks.</li> <li>RO based water purification system included in the system should be: Particle filtration, Spherical Activated Carbon, Catalyst, Dual Reverse Osmosis Membranes, Optional Final Particle and Sterile Filtration.</li> <li>The pre-treatment cartridge should consist with 20x50 mesh activated carbon, a catalyst, and a 5µm depth filter to remove oxidation agents, heavy metal ions, and particles from the feed water at low temperature.</li> <li>System should consist of dual Pass 2 individual RO Membrane in parallel operation (i.e. not in series).</li> <li>Display :Glass display with touch function should display parameter related to quality of water (conductivity of input and output water , rejection rate monitor, Tank level ,temperature etc)</li> <li>There should be an option for 0.2 micron Sterile-grade filter for bacteria free filtrate</li> <li>24 hrs fully automatic system</li> <li>Typical Resistivity : &lt; 0.05 MΩ.cm at 25°C</li> <li>Bacteria : &lt; 1 CFU/1000 ml</li> <li>Flow rate : upto 10 liter/hr at 25°C</li> <li>Monovalent, Polyvalent ion Retention : upto 95%</li> <li>Recirculation of water in standby mode to maintain the purity of water</li> <li>Should have facility for wall mounting</li> <li>Ultrapure water should be produced using Carbon –resin technology with Resistivity up to 18.2MΩ x cm.</li> <li>System should have Horizontally placed UV oxidation</li> <li>System should show 3 Water Dispensing Modes : i) Manual ii) Time iii) Volume Controlled</li> </ol>	01
2.	CO2 incubator	<ul> <li>19. Additional cartridges and 0.22um filter may be provided.</li> <li>20. Product Water Quality <ul> <li>Resistivity: 18.2 MΩ.cm</li> <li>TOC: ≤ 2 ppb</li> <li>Particles: &lt; 1/ml @ 0.2um</li> <li>Bacteria: &lt; 1 CFU/1000ml</li> <li>Flow rate: Up to 2.0 l/min</li> </ul> </li> <li>21. Warranty 24 months <ul> <li>Stainless steel interior and removable shelves (no. 3-4).</li> <li>Volume more than 200 liters,</li> <li>Air jacketed,</li> <li>Digital display</li> <li>Maximum accuracy</li> </ul> </li> </ul>	01
3	UV-Vis	<ul> <li>6. IR (infrared) CO2 gas sensors</li> <li>7. Temperature control with 0.1°c accuracy,</li> <li>8. 100% HEPA filtered air in chamber</li> <li>9. Lighter in weight</li> <li>10. Alarm and monitoring system</li> <li>11. Separate Inner Glass Door for each shelve,</li> <li>12. Decontamination system upto 130-160 °C,</li> <li>13. Two CO2 cylinder with regulator and fittings,</li> <li>14. 36 months warranty</li> <li>Compact UV – VIS spectrometer for wide variety of procedures for the</li> </ul>	01
0	spectrophotometer	<ul> <li>compact of 2 vis spectrometer for wide variety of procedures for the most diverse molecular biology, cell biology and biochemical methods.</li> <li>1. Double Beam with cuvette reference and wavelength: 190-1100nm</li> <li>2. Monochromator with Spectral Bandwidth: 1 nm</li> <li>3. Light Source: Xenon flash lamp with 3-year warranty</li> <li>4. Detector: Dual Silicon Photodiodes Scan Ordinate Modes: Absorbance,% Transmittance, % Reflectance, Photometric Range: &gt; 3.5 Abs</li> <li>5. Resolution: &gt;1.6(peak-to-valley ratio), Data Intervals: 10, 5, 2, 1, 0.5, 0.2, 0.1 nm</li> <li>6. Wavelength Accuracy: ± 0.8 nm (full range) ± 0.5 nm (546.11 nm mercury line)</li> <li>7. Wavelength Reproducibility: less than 0.1 nm, Slew Speed: 31,000 nm/min</li> <li>8. Scanning Speed: &lt;1 to 6000 nm/min; continuously variable</li> </ul>	

<ol> <li>Photometric Accuracy: 0.5 A: ± 0.004A; 1A: ± 0.006A; 2A: ± 0.010A;</li> </ol>	
(440 nm; traceable neutral density filters)	
10. Low Noise	
11. Drift: < 0.0005 A/hr	
<ol><li>Keypad: Sealed Membrane with advance technology</li></ol>	
<ol><li>Operating System: Microsoft Windows XP embedded</li></ol>	
14. Electrical Supply: 100 – 240 V, 50 – 60 Hz, Selected	
500µl	
17. System should be upgradable for measurement with 1ul of the	
sample without dilution	
18. Warranty 24 months	
	<ul> <li>(440 nm; traceable neutral density filters)</li> <li>Low Noise</li> <li>Drift: &lt; 0.0005 A/hr</li> <li>Keypad: Sealed Membrane with advance technology</li> <li>Operating System: Microsoft Windows XP embedded</li> <li>Electrical Supply: 100 – 240 V, 50 – 60 Hz, Selected</li> <li>UPS for running the instrument and accessories.</li> <li>Should provide one set of each quartz cuvette of volume: 3ml, 1ml, 500µl</li> <li>System should be upgradable for measurement with 1ul of the</li> </ul>

# **ANNEXURE-'C**

# AFFIDAVIT REGARDING BLACKLISTING/ NON-BLACKLISTING FROM TAKING PART IN GOVT.TENDER BY DOT/GOVT. DEPT

## (To be executed on Rs.10/- Stamp paper & attested by Public Notary/Executive Magistrate by the bidder)

			UI			
I / We Proprietor/ Partner(s	s)/ Director(s)	of M/S.		hereby	declare that	the
firm/company namely M/S				was	blacklisted	or
debarred by MNNIT Allahabad	d, or any other	Governm	nent Department from taking part	in Gover	nment tenders	s for
a period of years w.e	.f					

The period is over on------and now the firm/company is entitled to take part in Government tenders. In case the above information found false I/We are fully aware that the tender/ contract will be rejected/cancelled by MNNIT Allahabad, and EMD/SD shall be forfeited. In addition to the above MNNIT Allahabad, will not be responsible to pay the bills for any completed/ partially completed work.

Signature	
Name	
Capacity in which assigned:	
Name & address of the firm:	
Date:	

Signature of Bidder with seal.

# Technical Compliance of 'DIFFERENT LAB EQUIPMENTS' (ON THE LETTER HEAD OF THE BIDDER)

<u> </u>		(ON THE LETTER HEAD OF THE BIDDER)	14/1 /1	
S.	Name of	Specifications	Whether	Quoted
No.	equipment		meet the requirement	model specifications
			(Yes/No)	specifications
1	Water purification	1. Should contain pre treatment unit, a RO based	(165/100)	
	system (molecular	water purification system, ultra purification unit		
	biology grade)	and purified water storage tanks.		
	biology grade)	2. RO based water purification system included in		
		the system should be: Particle filtration, Spherical		
		Activated Carbon, Catalyst, Dual Reverse Osmosis Membranes, Optional Final Particle and		
		Sterile Filtration.		
		3. The pre-treatment cartridge should consist with 20x50 mesh activated carbon, a catalyst, and a		
		5µm depth filter to remove oxidation agents,		
		heavy metal ions, and particles from the feed		
		<ul><li>water at low temperature.</li><li>4. System should consist of dual Pass 2 individual</li></ul>		
		RO Membrane in parallel operation (i.e. not in		
		series).		
		5. Display :Glass display with touch function should display parameter related to quality of water		
		(conductivity of input and output water, rejection		
		rate monitor, Tank level ,temperature etc)		
		6. There should be an option for 0.2 micron Sterile-		
		grade filter for bacteria free filtrate		
		7. 24 hrs fully automatic system		
		<ol> <li>Typical Resistivity : &lt; 0.05 MΩ.cm at 25°C</li> <li>Bacteria : &lt; 1 CFU/1000 ml</li> </ol>		
		10. Flow rate : upto 10 liter/hr at 25°C		
		11. Particle ,Microorganism Retention: >99%		
		<ol> <li>Monovalent, Polyvalent ion Retention : upto 95%</li> <li>Recirculation of water in standby mode to</li> </ol>		
		maintain the purity of water		
		14. Should have facility for wall mounting		
		15. Ultrapure water should be produced using		
		Carbon –resin technology with Resistivity up to $18.2M\Omega \times cm$ .		
		16. System should have Horizontally placed UV oxidation		
		17. System should show 3 Water Dispensing Modes		
		: i) Manual ii) Time iii) Volume Controlled		
		18. CE Certified		
		19. Additional cartridges and 0.22um filter may be		
		provided.		
		20. Product Water Quality		
		Resistivity: 18.2 M $\Omega$ .cm		
		TOC: $\leq 2$ ppb		
		Particles: < 1/ml @ 0.2um		
		Bacteria: < 1 CFU/1000ml		
		Flow rate: Up to 2.0 l/min		
		21. Warranty 24 months		
2.	CO2 incubator	1. Stainless steel interior and removable shelves		
۷.		(no. 3-4).		
		2. Volume more than 200 liters,		
		3. Air jacketed,		
		4. Digital display		
		5. Maximum accuracy		
		6. IR (infrared) CO2 gas sensors		
		7. Temperature control with 0.1°c accuracy,		
		8. 100% HEPA filtered air in chamber		
		9. Lighter in weight		
		10. Alarm and monitoring system		
		11. Separate Inner Glass Door for each shelve,		
		12. Decontamination system upto $130-160$ °C,		
		13. Two CO2 cylinder with regulator and fittings,		
		14. 36 months warranty		
3	UV-Vis	Compact UV – VIS spectrometer for wide variety of		
3	spectrophotometer	procedures for the most diverse molecular biology,		
	specifophotometel	cell biology and biochemical methods.		
		oon biology and biochemical methods.		1

1.	Double Beam with cuvette reference and	
	wavelength: 190-1100nm	
2.	Monochromator with Spectral Bandwidth: 1 nm	
3.	Light Source: Xenon flash lamp with 3-year	
	warranty	
4.	Detector: Dual Silicon Photodiodes Scan	
	Ordinate Modes: Absorbance,% Transmittance,	
	% Reflectance, Photometric Range: > 3.5 Abs	
5.	Resolution: >1.6(peak-to-valley ratio), Data	
0.	Intervals: 10, 5, 2, 1, 0.5, 0.2, 0.1 nm	
6.	Wavelength Accuracy: $\pm 0.8$ nm (full range) $\pm 0.5$	
	nm (546.11 nm mercury line)	
7	Wavelength Reproducibility: less than 0.1 nm,	
	Slew Speed: 31,000 nm/min	
8.	Scanning Speed: <1 to 6000 nm/min;	
	continuously variable	
9.	Photometric Accuracy: 0.5 A: ± 0.004A; 1A: ±	
	0.006A; 2A: ± 0.010A; (440 nm; traceable neutral	
	density filters)	
10.	Low Noise	
11.	Drift: < 0.0005 A/hr	
12.	Keypad: Sealed Membrane with advance	
	technology	
13.	Operating System: Microsoft Windows XP	
	embedded	
14.	Electrical Supply: 100 - 240 V, 50 - 60 Hz,	
	Selected	
15.	UPS for running the instrument and accessories.	
	Should provide one set of each quartz cuvette of	
	volume: 3ml, 1ml, 500µl	
17.	System should be upgradable for measurement	
	with 1ul of the sample without dilution	
18.	Warranty 24 months	
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# **ANNEXURE-'E'**

# PRICE BID (ON THE LETTER HEAD OF THE BIDDER)

SI. No.	Description of item with Specification	Quantity	U/ Price	T/Price (in Rs.)	
		(No.)		In Figures	In Words
	WATER PURIFICATIONS SYSTEM				
1.		01 No.			
	MAKEMODEL				
	CO2 INCUBATOR				
2.		01 No.			
	MAKEMODEL				
	UV-VIS SPECTROPHOTOMETER				
3.		01 No.			
	MAKEMODEL				

We agree to supply the above goods in accordance with the technical specifications for a total contract price of \_\_\_\_\_\_ within the period specified in the Invitation for Quotations.

## Note:

### Signature and Seal of the Manufacturer/Bidder

1. Bidders should provide copies of original Memorandum and Articles of Association, defining the constitution of legal status, place of registration and place of business of the company.