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# Post Graduate Department of Chemistry University of Jammu

(NAAC Accredited Grade 'A+')

Baba Saheb Ambedkar Road, Jammu - 180 006

No. PGD/Chem/

Dated 3.12.20

## e-NIT

Scaled e-NIT (technical & financial bids) are invited from\* reputed manufacturers/authorized dealers/distributors/sole selling agents for the supply, installation and commissioning of the following equipment:

1. Tensiometer (Force).

For further details, please visit our website <http://www.jammuuniversity.in> and <https://jktenders.gov.in>. The complete tender document should be submitted online on or before 11:00 hours of 24.12.2020 (Bid Start date: 03.12.2020 at 05:00 hours)

 3/12/20

Prof. Kamal K. Kapoor  
Head of the Department



POST GRADUATE DEPARTMENT OF CHEMISTRY,  
UNIVERSITY OF JAMMU, JAMMU.

NO.: PGD/CHEM/20/2055  
DATED: 24.11.2020

NOTICE INVITING TENDERS FOR THE PURCHASE OF  
TENSIOMETER (FORCE)

Offers (rates and terms & conditions) alongwith detailed literature and specifications are invited from manufacturers/authorized distributors/dealers etc. for supply of following instrument with terms and conditions mentioned below:

TECHNICAL SPECIFICATIONS FOR TENSIOMETER  
(FORCE)

PC based fully automatic Force Tensiometer with the application of measuring Surface/Interfacial tension, Critical micelle concentration, Dynamic contact angle, Sedimentation, Density, Powder Wettability, and Adhesion Force Measurement.

S.No.	Specifications	
1.	Surface Tension Measurement Range	1 – 2000 mN/m or better
2.	Method of Measurement	Pt- Ir Ring & Pt Plate
3.	Surface Tension Resolution	0.01 mN/m
4.	Contact Angle Measurement Range	0 – 180°
5.	Contact Angle Resolution	0.1° or better
6.	Density Measurement Range	1 – 2 g/cm <sup>3</sup> or better
7.	Density Resolution	0.0001 g/cm <sup>3</sup> or better
8.	Balance Capacity for Load	120 g or better
9.	Balance Resolution	0.01 mg or better
10.	Calibration/adjustment	Automatic with internal weights
11.	Force Resolution	0.1 μN or better
12.	Sample Stage	Motorized
13.	Sample Stage Speed	0.1 – 500 mm/min or better
14.	Sample Stage Travel Distance	75mm or better
15.	Tempe Range of Vessel Bath	-10°C to 100°C or better, Accuracy: +/- 0.1°C or better
16.	Bath Size	<5L
17.	Movement of Table	Electrically driven.
18.	Other important features	(i) Illuminated Sample Platform (ii) Must have adjustable feet (iii) Wind shield for protection from wind during measurements



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		(iv) Integrated key board with control of stage movement & magnetic Stirrer.
19.	<b>Power Supply</b>	230V +/- 10%, 50Hz
20.	<b>Software modules</b>	<ul style="list-style-type: none"> <li>(i) Surface &amp; Interfacial Tension module for ring, plate &amp; Rod methods</li> <li>(ii) Contact Angle module for Dynamic Contact Angle and surface free energy determination on plate, powders, pigments etc.</li> <li>(iii) Provision for Surfactants characteristics module for CMC measurements &amp; Density Module &amp; Adhesion Force.</li> <li>(iv) The software module must have a large database for surface/Interfacial tension and their disperse &amp; polar components for reference liquids.</li> </ul>
21.	<b>Standard Accessories which should be quoted along with main unit:</b>	
	<ul style="list-style-type: none"> <li>(i) Thermostatic Jacket – 1 no.</li> <li>(ii) Glass vessels – 10 nos.</li> <li>(iii) Platinum Wilhelmy Plate – 1no.</li> <li>(iv) Pt- Rod- 1 no.</li> <li>(v) Pt-Ir Ring- 1 no.</li> <li>(vi) Built in Magnetic Stirrer-1 no.</li> <li>(vii) Refrigerated water bath -10°C to 100°C – 1 no.</li> <li>(viii) PC (i3 processor) – 1 no.</li> </ul>	



*POST GRADUATE DEPARTMENT OF CHEMISTRY,  
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**Terms and Conditions:**

1. Tenders addressed to, "Head of the Department, Department of Chemistry, Baba Saheb Ambedkar Road, New University Campus, University of Jammu, Jammu 180 006", should be submitted online only (<https://www.jktenders.gov.in>).
2. Delivery of goods should be FOR Department of Chemistry, University of Jammu, Jammu.
3. General Sale tax/custom duty/excise/entry tax or any other tax, if any, should be clearly mentioned. Rates should be inclusive of custom clearance, insurance etc. It may kindly be noted that University of Jammu will not bear any cost/expenditure arising out of loss during transportation etc. Cost of equipment should include transportation charges and insurance charges upto FOR destination. University of Jammu is exempted from Custom Duty under DSIR registration. DSIR certificate shall be provided by the University of Jammu.
4. Firm shall be required to submit the End of Life of product. It shall be responsibility of the supplying firm/manufacturing firm to collect condemned instruments/its salvage whenever it is declared unserviceable/obsolete/end of life/beyond economic repair etc. Firm shall be required to submit EPR authorization issued by CPCB.
5. Firm shall be required to submit complete information/brochure/catalogue along with the offer.
6. Firm should submit an authorization certificate from principal firm for sale and service.
7. Concession to educational institutions, if any, should be clearly mentioned.
8. Products conforming to particular standards (ISO, ISI etc.) should be clearly mentioned.
9. In case any item is your proprietary product or if you are sole manufacturer/distributor of requisite item, a certificate to this effect should be enclosed.
10. It is at discretion of the competent authority to reject one/all tenders/part of tender without assigning any reason, thereof.
11. In case seller fails to complete in full, all deliveries of product in accordance with supply order; the seller shall be responsible for the liquidity damages. Thereafter the buyer, will have right to terminate supply order in the case of such delay beyond period mentioned by seller in the offer and buyer will have total discretion to buy product from the market/other supplier at the lowest rate.
12. An undertaking should be submitted by your concern that rates quoted in this offer are lowest/at par with rates quoted to other Govt./Semi-Govt. institution in the country and your concern/firm has not sold your product to any other organization in India at lowest price than the price quoted in this offer.
13. A user list of the institutions/organizations where the quoted equipment has been installed and working successfully must be provided.
14. Debarment of the bidding firms shall be governed by Rule No. 151 of GFR 2017; Ministry of Finance, GOI, as mentioned below:



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- (i) A bidder shall be debarred if he has been convicted of an offence—
    - (a) under the Prevention of Corruption Act, 1988; or
    - (b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.
  - (ii) A bidder debarred under sub-section (i) or any successor of the bidder shall not be eligible to participate in a procurement process of any procuring entity for a period not exceeding three years commencing from the date of debarment. Department of Commerce (DGS&D) will maintain such list which will also be displayed on the website of DGS&D as well as Central Public Procurement Portal.
  - (iii) A procuring entity may debar a bidder or any of its successors, from participating in any procurement process undertaken by it, for a period not exceeding two years, if it determines that the bidder has breached the code of integrity. The Ministry/Department will maintain such list which will also be displayed on their website.
  - (iv) The bidder shall not be debarred unless such bidder has been given a reasonable opportunity to represent against such debarment
15. All the pages of soft copy of the offer should be endorsed along with the stamp/seal of the firm.
  16. It may kindly be noted that in case a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.
  17. Firm shall be required to submit the EMD/Bid security amounting to Rs. 30000/- in the form of bank guarantee/DD/CDR from any of the commercial banks which should remain valid for the period of forty five (45) days from beyond the final date validity period.
  18. Firms which are exempted to submit the EMD/Bid security shall be required to submit certificate issued by the concerned Ministry/Department.
  19. Successful bidders shall be required to submit performance security amounting to 10% of the quoted price pledged to the Head, Department of Chemistry, University of Jammu, Jammu in the form of bank guarantee from any of the commercial banks which should remain valid for sixty (60) days beyond the date of completion of all contractual obligations of the suppliers including warranty obligations.
  20. Financial bids of only technically qualified tenderers shall be opened. If the Technical Bids are not in order or are deficient in some respect, the commercial bids in respect of such tenders shall not be opened.
  21. Item must be quoted alongwith the warranty as specified in technical specifications.
  22. Technical specifications of the required instruments/equipments/articles are given above.