Central Purchase unit
National Institute of Technology Srinagar-190006
Tel:- 0194-2424792/2429423/2424809/2424797 Fax:- 0194-2420475
****

No. NITS/CPU/ /2016/ Chem/2579-85
Dated.:- 03.01 .2017

M/S……..
……

ub: Invitation of Bids for the supply of **equipment for Environmental lab of Chemical Engg. Department.**

Dear sir,

1…You are here by invited to submit your most competitive Bid for the lab equipment with detailed Specification of these goods as give in Annexure-A. The offer to be submitted in two bid System.

2. (Envelope- A (Technical Bid) It should contain the following; (As per tender opening format)

(a) Authorization /dealership/manufacturer certificate.
(b) Valid tax clearance certificate for bidders from J&K State.
(c) Technical specification/ literature for the goods/equipment
(d) Bid security @ 3% in the form of CDR in favour of Chairman, Central Purchase Unit NIT Sgr. and tender document fee Rs. 500/- in the form of DD, in favour of Director, NIT Srinagar.
(e) Certificate of sale after sale service support wherever necessary.
(f) Proof of legal status.

3. (Envelope-B (Price Bid) It should contain the following

(a) Bid prices (Preferably in Indian Rupees)
(b) Bid price should be firm for the bid validity period.
© **All duties, taxes and levies (CST/GST/VAT or other taxes) payable, must be quoted separately**.
(d) **As per SRO 129 of Government of Jammu & Kashmir, the institute is Exempted for state entry tax. The Institute will provide Entry tax exemption certificate to successful bidder with supply order. The Institute is also exempted for Custom/Excise duty.**
(e) The rate quoted should be FOR NIT Srinagar.
(f) Bid price should be without over writing, however minor over writing should be clearly signed by the bidder. In case of any discrepancy between price quoted in figures and words, the price quoted in words shall be accepted.
(g) **The rates should be covered with transparent tape.**
(h) Bid form in the format given in Annexure-B
(i) Technical specification Schedule as per Annexure-C
(j) Price bid schedule in the format enclosed in Annexure-D

4. Validity of Bids

Bids shall remain valid at least for 120 days from the date of opening.

5. Evaluation of Bids.

(a) The purchaser shall evaluate and compare the bids which are found substantially Responsive. i.e which are
(i) Properly signed
(ii) Conform to terms and conditions and technical specifications.
(iii) Accompanied with Bid security and all other documents.
(b) Bids shall be evaluated separately for each item.

6. Award of contract

(a Contract shall be awarded to the bidder whose bid is commercially, technically responsive and offered at lowest evaluated price.
(b) Successful bidder shall be notified about the award of the contract where in terms and conditions of supply shall be incorporated.

7. Payment.

100% payment shall be made against delivery of goods at NIT Srinagar Campus in good condition, as per specifications and successful installation/commission.

8. Warranty:

(a) All items shall carry comprehensive standard warranty of two years.

9. Performance security.

(a) Successful Bidders shall submit performance security promptly after award of contract.

(b) Performance security shall be in the form of Bank Guarantee for the amount as mentioned in the award of contract letter/supply order. However it shall not exceed 10% of the contract value.

10. Penalty for delay.

A penalty of 0.15% (fifteen paisa per hundred) per day shall be imposed if the supply is made beyond the prescribed period mentioned in supply order.

11. Settlement of disputes.

Settlement of any dispute will be made under the jurisdiction of Srinagar court.

12. Liquidated Damages.

If the bidder after accepting the purchase order of goods/equipments or services, fails to deliver any or all of the goods/equipments or to perform the services with in the specified period, a penalty of 15 paisa per hundred per day shall be charged. The maximum penalty can be limited to 10% of the cost. Once maximum is reached NIT Srinagar may proceed on its own to consider the termination of the supply order.

13. Submission of Bids.

(a) **The last date for submission of bids is 31.01.2017 upto 2.30 P.M.**

(b) Bids should be properly sealed.

(c) The two envelopes A & B should be kept in separate one envelope. Enquiry No., due date of opening and **Quotation for supply of equipment for Environmental lab of Chemical Engg. Deptt.** must be mentioned on this envelope.

(d) Bids should be addressed to Chairman Central Purchase unit NIT Srinagar.

(e) Bids shall be accepted up to one hour before opening.

(f) Bidders not from Srinagar shall dispatch bids sufficiently well in advance s as to reach the destination one day prior to bid opening.

14. Bid opening

(a) The Technical Bid (Envelope- A) will be opened first and price Bid (Envelope-B) of the bidder will be opened after qualifying the Technical Bid (Envelope-A).

(b) Interested bidders can attend the bid opening.

15. Not withstanding above the purchaser reserves the right to reject any or all the bids.

16. We look forward for your quotation.

Thanking you,

Chairman
Central Purchase unit, NIT Srinagar

Note:

1. Before preparing your valuable bid kindly go through the document fully and take care of all the requirements.
2. Bidders from outside Srinagar may please send their Bids much in advance so that they are received in time.

Annexure-A

Schedule of Requirements.

Details of Equipment:-

S.No.	Description of Equipment	Specifications				Quantity	Delivery Period
1.	**pH/Ion Meter**		**Measuring range**	**Resolution**	**Accuracy**	01	60 days
		pH	-2.0…20.00	0.001 / 0.01 / 0.1	± 0.002		
		mV	-2000...2000	0.1 / 1	± 0.2		
		Ion concentration	$1.00E^{-9}$ - $9.99E^{+9}$	± last signifi. digit	± 0.5%		
		Temperature	-30.0 to130.0 °C	0.1 °C	± 0.1 °C		
		Calibration	Max. 5 points, 8 pre-defined and 1 user-defined buffer group				
		System	Date / time, PIN-protection, 10 languages				
		Data storage	1000 measurements				
		Data export	USB stick, LabX direct PC software				
		Measurement limits	User-definable with warning message				
		ID entry	User ID, Sample ID, Sensor ID, Sensor Serial Number				
		ISM®	Intelligent Sensor Management supported				
			Instrument should also measure Rel mV. Ion concentration should be supported with different unit choices like mol/lit, ppm & mg/lit. Temperature display must have choices between C & F.				
2.	**Laboratory Oven**	Size: Not less than 60x60x90 cms. Hot air oven with SS inner chamber, Mild steel outer wall with power coating, Gap between walls fitted with glass wool insulation to avoid heat loses, Heating element of high grade chrome plate microme wire, equipped with thermostat to control the temperature. Temperature range 50 to 250 C with ± 2% Accuracy. Fitted with air ventilators to remove hot gases /fumes, heaters at right & left side of inner chamber, control switches & pilot lamps on front panel. Equipped with air circulation fan for uniform temperature, Digital temperature controller cum indicator in lieu of thermostat. Outside chamber made of S.S.				1 set	
3.	**Tube Furnace with integrated control system and Vacuum / Gas Accessories**	a) Max. Working Temperature: 1200°C and continuous working temperature up to 1150°C. Claim has to be properly supported by documents and will require demonstration on any of the nearby installed system supplied by the company. b) Tube Dimensions: Not Less than L 1000 mm x Inner ø 40mm x Outer ø 50 mm				01	

		c) Heated Length: Not less than 250 mm d) Constant Temp. Length (ΔT 10 K): Not less than 80 mm e) Temperature should be controlled by a microprocessor based PID controller with minimum 8 segments (for having a number of heating/soaking/cooling cycles within a single run) and must have auto tune feature. Lowest ramp (heating/cooling) rate must be 1°C/min or less (Proper documentation must be supplied and requires demonstration in an installed system by the company). f) Uniformity in terms of difference between actual furnace temperature w.r.t. the set temperature should be less than ±10 K. This accuracy of set temperature has to be properly supported by documents and will require demonstration on any of the nearby installed system supplied by the company. g) Temperature sensor: Type S thermocouple h) Heating capacity: less than or equal to 1.5 kW i) Voltage: 230 V AC / 50 Hz / Single phase **Other Features:** 1. Working tube made of Pythagoras type C610 or better *high quality* dense ceramic for high temperature and vacuum operation *(require proper documentation and supporting material).* 2. Flow meters for gas inlet –outlet system 3. Silent Solid State power control relays. 4. Microprocessor PID temperature controller with clear LCD display. 5. Program 1 nos.; Steps per program at least 8 nos. Program entry in steps of 1°C or in 1 min. 6. Status messages must be in clear texts and not in coded form. 7. Start time configurable; Operating hour counter 8. Power usage measurement; Real-time clock 9. Interface for software; Programmable power outlet. 10. GLP & GMP compliant Non-rust Textured Stainless sheet steel casing. 11. Insulation with vacuum - formed ceramic fibre plates. 12. Power unit with low-voltage transformer and Over temperature limit controller The system should be equipped for protective gas applications with nonflammable gases & vacuum operation (up to a max. final pressure of 20 mbar) • Gas-tight working tube of ceramic C610.		

		• 2 vacuum-tight, water-cooled stainless steel flanges with fittings on the outlet side (cooling water supply with hose connector to be provided by the user). • Mounting support system with Brackets on furnace for the tube & flanges. • Gas supply system for <u>One</u> nonflammable protective gas (Ar / N_2 / O_2/CO_2 forming gas etc.) with shutoff valve and flow meter with control valve (volume 50-500 l/hr), gas outlet valve, piped and ready to connect (gas intake 300 mbar to be provided by user). • Vacuum connection piping unit • For working under high vacuum operation (even up to 10^{-5} mbar) a dense longer working tube at least (L10o0 mm × Inner ø 40mm × Outer ø 50mm) in a gas tight design need be supplied. • Vacuum pump up to a max. final pressure of 20 mbar. Moreover the Prices for gas cylinder (of 47 L water capacity) along-with regulator (double stage, brass) for Argon, Nitrogen, Carbon-di-oxide gases must be included in quote.		
4.	**Conductivity/ DO/BOD/pH/ mV meter (All in one)**		01	

	Measuring range	**Resolution**	**Accuracy**
Conductivity	0.001 µS/cm-1000 mS/cm	0.001 … 1	± 0.5%
Temperature	-30.0 … 130.0 °C	0.1 °C	± 0.1 °C
Dissolved Oxygen	0.00-99mg/L(ppm)	0.001	± 05-10%
pH	-2.0…20.00	0.001 / 0.01 / 0.1	± 0.002
mV	-2000...2000	0.1 / 1	± 0.2
Ion concentration	$1.00E^{-9}$ -$9.99E^{+9}$	± last signif. digits	± 0.5%
Temperature	-30.0 to130.0 °C	0.1 °C	± 0.1 °C
Calibration	13 pre-defined or 1 user-defined standard		
Cell constant	Determined via calibration or entered manually		
Temperature compensation	Linear, non-linear, off, pure- water – reference temperature 20 °C or 25 °C		
System	Date / time, PIN-protection, 10 languages		
Data storage	1000 measurements		
Data export	USB-stick, LabX direct PC software		
Measurement limits	User-definable with warning message		
ID entry	User ID, Sample ID, Sensor ID, Sensor Serial Number		
ISM®	Intelligent Sensor Management supported		

5.	**Portable Fridge**	Double-door refrigerator; 240 litres capacity, 10 year warranty on compressor : Features: 4 way cooling technology, 135v-290v lvs works without stabilizer,	1 set	

		mechanical temperature control and reciprocatory compressor. Toughened Glass Shelves: Clear tempered glass shelves with load bearing Humidity Controller: To control moisture level		
6.	**Bench Top Orbital Shaker**	Digitally controlled , adjustable speed control for gentle & vigorous shaking, Electronic display temperature control, Range: 10^0C to not less than 60^0C. Equipped with air heater, with an accuracy of $\pm 0.5^0$C	1 set	
7.	**Magnetic stirrer**	Intelligent functioning constant temperature magnetic stirrer, with high performance DC motor, Digital display temperatures with suitable controls for monitoring of speed & time functions. Speed range of 40-2500 rpm with step less adjustment.	03	
8.	**Sieve Shaker**	Measuring Range of 20um to 25mm. Suitable Sieve diameters of 150mm. Should have at least six sieves of standard 2 inch height with lid & receiver. Should be mounted on helical springs for free movement of platform.	01	
9.	**Ultrasonic Bath**	Frequency :30±3 KHz Tank Capacity : 20 Ltrs Tank Clear size: 450x300x150 mm Ultrasonic power : 500 Watts Heater power :1500 Watts	01	
10.	**Programmable UV-Visible Spectrophotometer**	**Wavelength range:** 190 to 1100 nm; Accuracy: +/- 1 nm; resolution: 0.1 nm **Optical system :** SPLIT-BEAM MONOCHROMATOR **Spectral bandwidth** : 2 nm **Photometric readout :** ABS, %T & concentration; linearity: 0.005 ABS maximum **Stray light :** KI- solution at 220 nm: greater then 3.3 Abs. **Lamp/ light source :** (i) Deuterium (UV), (ii) gas filled tungsten (VIS) **Photometric range :** +/- 3.00 ABS **Photometric Linearity :** Deviation less than 0.5 % at 2 A Deviation less than or equal to 1 % at greater then 2 A. **Display :** Backlit LCD, Touch screen graphical. **Read out modes :** Concentration, Absorbance, Transmittance (%) **Data storage :** 2000 data points **Scan data storage :** 20 scans Self test at power up including wavelength calibration and automatic Lamp alignment. The instrument should be able to carry out the kinetic studies. Should be capable of working as a stand-alone and as well as posses a PC interface facility.	01	

		Function mode : (a) single wavelength quantitation. (b) spectrum-scale expansion (Zoom facility), Automatic peak/valley picking, repeat scan. System should come with multi-cell holder, manual, power cord (230 V), 1 –inch matched glass sample cells, 1-cm matched quartz sample cell.		
11.	**Shaker Incubator**	Digital; Refrigerated: 15^0C below ambient to 80^0C Operable at: 240 V and 50 Hz. Control chamber temperature with an accuracy +/- 0.1 at 37^0C with PID controller. (Over temperature safety) DC brushless motor- 15 to 500 rpm Continuous operation – 0.1 to 999 hours Visual/audible signals alert at- ±1°C deviation from set point. Shaker shutdown and audible/visual alarms signal if unit operates ±10% of set speed. Corrosion-resistant stainless-steel chamber -not less than 18 x 18 in. (46 x 46cm) universal. Durable powder-coat Platform dimensions: not less than 18 x 18 in. 45.7 x 45.7 cm Overall dimensions : Not less than , L x W x H: 33 x 27 x 40.5 in. (83.9 x 69.6 x 102.9 cm) 125,250,500ml flask clamps must be included.	01	

(Tender opening format)

Name of the firm:-_____

Tender for supply of _____

NIT No. & Date:- _____

Technical specification/ literature attached:-	Yes/No
Valid tax clearance certificate attached:-	Yes/ No
Registration/ Authorization Dealership/ manufacturer certificate attached:-	Yes/ No
Revenue stamp affixed.	Yes/ No
Rates covered with transparent tape:-	Yes/ No
Bid document fee deposited:-	Yes/ No
Call Deposit Receipt enclosed:-	Yes/ No.
Bid price in Indian Rupees:-	Yes/ No
FOR Srinagar:-	Yes/ No
Bid without correction/overwriting:-	Yes/ No

Seal & Signature of the Supplier.

Annexure-B
BID FORM
****

From M/S……

……..

To,

Chairman,
Central Purchase unit, NIT Srinagar.

Ref: NIT No.: NITS/CPU/ /2016-17 Dated:.....goods/Equipment for ……Department

Sir,

With reference to above invitation for bids we would like to say that we have gone through your bid document thoroughly and hence offer our competitive Technical/Price Bid in sealed envelope for the supply of various goods/equipment listed in your document.
The following documents constitute our Bid.

(a) Bid form
(b) Price Bid schedule in the requisite format
(c) Authorization dealer ship certificate from the manufacturer
(d) Valid sales tax certificate
(e) Technical literature for the goods/equipment
(f) Names of organization where this equipment has been supplied. (Applicable for equipment whose unit price exceeds Rs.2.00 lacks
(g) Bid security as mentioned in the schedule of requirements in the form of CDR drawn in favour of the Chairman Central Purchase Unit NIT Srinagar.
(h) Telephone No…….

Kindly feel free for any enquiries and clarifications.

Yours Sincerely

(……..)
From M/S……..

Place…….

……..

Date……

Annexure-C
****
Technical specification.
****

Name of Equipment /Goods : e.g., Tribometer

Make /Model/ Country of origin: e.g., Marus Tribometers and Instruments/ TR20-2013/ ……...

S. No.	Technical Specifications (as per. NIT/CPU/13/ aaaa-aaaa Advertised)	Technical Specifications of the Make /Model	Complies	Higher/Better (with detail quantification)	
				Higher/Better	Quantification
1			Yes	----	
2				Higher	
3					

Annexure-D

****

Price Schedule

****

S. No	Name of equipment/goods	Ex Factory/Ex show room cost	Custom Duty & Excise Duty	CST/VAT	Packing & forwarding transportation	Incidental services	Total unit price	Quantity	Total Price