



NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR

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DURGAPUR –713 209, WEST BENGAL, INDIA

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With reference to BID No.: NITD/CHEMICAL/PLAN/2010/02 dated 20.2.2010, date of submission of bids for the following items has been extended upto 4.00 pm on 25th March, 2010. The bids will be opened at 4.30 pm on 25th March 2010. Those quoted earlier may submit fresh quotation without additional EMD.

17.3.2010

BID REFERENCE: NITD/CHEMICAL/PLAN/2010/02

To

Dear Sir,

SUB: Invitation for quotations for supply and installation of Instruments/ Equipment in the **Chemical Engineering Department** as specified in annexure-II.

1. You are invited to submit your most competitive quotation for the listed 29 items of instruments/equipment as per Annexure–II. For each item quote separately in separate envelope superscripted with ITEM Name and ITEM No(1-29). Quotations for sub-items (a-i) under one item should be in the same envelope. For each item(1-29) submit separate set of complete documents. Price bid form as per Annexure-I must be filled with complete numerical values.
2. **Bid Price** (Annexure-I)
 - a) The contract shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price **F.O.R. NIT Durgapur**.
 - c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - d) The bid price must be quoted in **Indian Rupees**.
3. The bid submitted by the bidder must comprise the following:
 - (a) Detailed technical specifications, conforming to the given specifications (vide Annexure – I), and literature /drawings /manuals of the goods/services to be supplied
 - (b) Authorized dealership certificate from the original manufacturer
 - (c) Credentials and list of organizations where the bidder supplied similar items
 - (d) Warranty period (1 year comprehensive on-site)
 - (e) Valid sales-tax / VAT clearance certificate
 - (f) Price bid as per Annexure-I
4. **Validity of Quotation**
Quotation shall remain valid for a period not less than **60** days after the deadline date specified for submission.
5. **Evaluation of Quotations**
The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which
 - (a) are properly signed and

- (b) conform to the terms and conditions, and specifications.
6. **Award of contract**
The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive, technologically acceptable and who has offered the lowest evaluated quotation price.
- 7.1 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.
- 7.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
8. Delivery shall be made at **Department of Chemical Engineering at NIT, Durgapur**
9. Payment shall be made immediately within **30 days** after satisfactory installation, commissioning and acceptance of the good.
10. Comprehensive onsite warranty shall be applicable to the supplied goods for a period of **12 months** from the date of installation.
11. The Institute is **exempted from payment of custom and excise duty** on items mentioned below:
a) Scientific and technical instruments, apparatus, equipment (including computers);
b) Accessories, spare parts and consumables thereof;
c) Computer software, CD-ROM, recorded magnetic tapes, microfilms, and microchips.
12. The successful bidder must submit before the release of payment a valid bank guarantee on any nationalized bank of **10%** of the order value towards **Performance Security** during the warranty period. Else, 90% of the payment will be released retaining 10% of the order value towards Performance Security during the warranty period.
- 13. Liquidated Damage will be applicable at the rate of 0.5% per week. The purchaser has the right to cancel the purchase order when LD accumulates to 10 %.**
14. A bank draft or bank guarantee worth **2%** of the quoted value payable to Director, **NIT Durgapur** at Durgapur will be enclosed with the bid by the bidder towards the **Earnest Money Deposit (EMD)**. The EMD shall remain valid for a period of **105** days.
15. Settlement of any dispute will be made under the jurisdiction of Durgapur Court.
16. You are requested to provide your offer latest by **16.00** hours on **25.3.2010**.
17. The purchaser will open the bids at **16:30** hours on **25.3.2010**.
18. The bid document must be signed and sealed and enclosed with the bid as a token of acceptance of all terms and conditions in the bid document by the bidder.
19. The items must be delivered within **60 days** from the date of placement of purchase order at the respective department.
20. Comprehensive onsite warranty for **12 months** from the date of satisfactory installation shall be applicable for offered goods.
21. All other terms and conditions of GFR 2005 of the Government of India will be application.
22. **Place of Delivery: Dept. of Chemical Engineering, NIT Durgapur**
23. **Installation / commissioning / demonstration requirement:** Installation, commissioning, complete demonstration and successful running at **Dept. of Chemical Engineering, NIT, Durgapur**
- We look forward to receiving your quotations and thank you for your interest in this project.

HOD, Chemical Engg.

The bid must be addressed to:

Head

Department of Chemical Engineering

NIT, Durgapur -713209, W.B.

Annexure - I

PRICE BID

1	2	4	5		6	7
Sl. No	Name of the good	Quantity & Unit	Price for each unit		Unit Price (a)+(b)	Sales tax/VAT & other taxes payable [admissible only on col. 5(a)]
			Ex-factory/ ex-warehouse/ ex-showroom off the shelf (a)	Incidental services (b)		

We agree to supply the above goods in accordance with the technical specifications and the terms and conditions mentioned in the bid document at prices mentioned above within the period specified in the Invitation for Quotations.

We also confirm that the comprehensive onsite warranty of **12 months** shall apply to the offered goods.

Signature of Bidder

Name

Business Address _____

Place:

Date:

ITEM No. 2. HPLC grade de-ionized water purifier of internationally reputed brand

Estimated price: Rs. 2.75 Lakh

Output Water Quality should be HPLC Grade Deionized water with

Flow Rate : (5-8) Liters./Hr. @ 15°C or better

Inorganics : 18.2 MΩ- cm @ 25°C or better

pH : Effectively Neutral

TOC: as per HPLC requirement

Quote for both Tap water feed and double distilled water feed.

With adequate spare membranes/ lamps/cartridge etc. for 3 years use

ITEM NO.3. UV-Spectrophotometer (Internationally reputed brand/ make)

ESTIMATED PRICE: Rs. 3.75 lakh

Microprocessor based UV-VIS Spectrophotometer with high resolution LCD display and soft keypad for operation on 220V/50Hz, Stand-alone operation, Double Beam optics with holographic grating.

Optional: complete control through PC, Windows based Software and supports Windows 98, 2000, XP operating system.

With LCD VGA graphics display as well as PC controlled (optional: operating software and PC printer)

Optical Design	Double-beam,
Spectral Bandwidth (SBW)	Variable 0.5, 1, 2, 5 nm/ fixed
Stray light	<±0.02% (or 0.01-0.03)
Light Source (typical service life)	Deuterium: 1,000 hours Tungsten: 2,000 hours
Detectors	Dual Silicon Photodiodes
Wavelength Range	190 - 1,100 nm
Scan	up to 3600 nm/min or better
Wavelength Accuracy	± 1.0 nm
Wavelength Reproducibility	±0.1 nm
Baseline Stability	0.005Abs/h or better
Photometric Accuracy	±0.004 or better
Measuring modes	Abs, %T, Conc, Scan

Operational modes as standard Photometric, quantitative, Spectrum scan, Kinetics, DNA and Protein. Software (optional) adds functions such as 3D Spectrum analysis, GLP/GMP protocol. Large sample compartment compatible with wide range of accessories.

Supply with minimum two sets of quartz cells, one set of spare lamps, fan belts and other consumables for 3 years use with appropriate standard for demonstration and detailed original manual for analysis and maintenance.

Item 16. Electronic I/P Converters experimental	All electronic I/P converters have closed loop control, excellent vibration resistance, long-term
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setup	<p>stability and can be mounted in any orientation. 4-20mA signal and a range of output variations. Type 422 Freeze fail I/P converter .</p> <p>3-15psi output options, High Flow - 280 l/min (10scfm), Fail-freeze drift rate < 2% set point/hour, IP65 rating: Type N or Intrinsically Safe options</p>
Item 17. Instrument Air Compressor Package Two (1)	
Item 18. Load cell Setup	Small 0.75" (19 mm) dia., Low 0.5" (13 mm) profile, test bench applications, Built in load button for easy installation, 5-Point traceable calibration provided

Item 23	Pitot Static Tube Apparatus	<p>Material: Copper/SS/ Clear Acrylic of compatible size fitted with Vernier scale.</p> <p>FHP Pump of branded company</p> <p>Measuring Tank (25 Ltrs. Capacity)</p> <p>Control Panel, On/Off Switch, Mains, Indicator, etc</p>
Item 24	Pipes in Parallel	<p>GI / PVC Pipes in Parallel (A set of total 2 pipes)</p> <p>Tank Capacity 50/25 Liters, MOC: SS</p> <p>Measuring Tank with Piezometer Tube & scale</p> <p>FHP Pump of branded company</p> <p>Control Panel, On/Off Switch, Mains, Indicator, etc</p>
Item 25	Study Of Pipe Fittings, Sudden Enlargement & Contraction Apparatus	<p>Sudden Enlargement : 3/4 inch to one inch/ 1/2 inch to 3/4 inch Sudden Contraction: one inch to 3/4 inch/3/4 inch to 1/2 inch</p> <p>Bend 1/2/ 3/4 inch</p> <p>Elbow 1/2/ 3/4 inch</p> <p>Ball valve 1/2/ 3/4 inch</p> <p>Gate valve 1/2/ 3/4 inch</p> <p>Water Circulation FHP Pump of branded company</p> <p>Flow Measurement Using Measuring Tank with Piezometer, Capacity 25 Ltrs.</p> <p>Sump Tank Capacity: 50 Ltrs</p> <p>Control Panel, On/Off Switch, Mains Indicator etc.</p>

Item 26	Helical coil Apparatus	<p>Helical coil Material: SS</p> <p>Sump tank Capacity: 50 Ltrs, Material SS</p> <p>Flow circulation FHP pump, standard make</p> <p>Manometer For pressure drop</p> <p>Flow measurement Rotameter, standard make</p> <p>Piping GI/ PVC</p> <p>Control Panel, On/Off Switch, Mains,Indicator, etc</p>
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Item 27	PLATE & FRAME FILTER PRESS P	Frame	6 Nos.
		Plates	7 Nos.
		Size	200 mm x 200 mm.
		Material	Acrylic (MS/SS on request)
		Screw Jack Arrangement	For tightening and removing of frames easily.
		Filter Medium	Filter Cloth
		Filtrate Collection Tray	Material SS, Suitable size.
		Slurry Feed Tank	Material SS, Capacity 40 Ltrs.
		Slurry Tank Agitator	SS Impeller with SS Shaft coupled to FHP Standard Make Motor and Reduction Gear BI
		Slurry Feed Pump	Gear Pump with FHP standard Make motor.
		Piping System	GI and PVC
		Filtration Rate Measurement	Using measuring tank. Material SS
		Pressure Measurement	Bourdon type pressure gauge
		Overhead Water Tank	Material SS , Capacity 25 Ltrs
Control Panel	On / off switch, Mains Indicator & fuse etc		

Item 28	<p>Study of Friction Loss in Straight Pipe, Pipe Fittings, Sudden Enlargement & Contraction Apparatus</p> <p>Straight Pipe: GI, Copper, Clear Acrylic Sudden Enlargement : $\frac{3}{4}$ Inch To One Inch/ $\frac{1}{2}$ Inch To $\frac{3}{4}$ Inch Sudden Contraction: One Inch To $\frac{3}{4}$ Inch/$\frac{3}{4}$ Inch To $\frac{1}{2}$ Inch Bend $\frac{1}{2}$/$\frac{3}{4}$ Inch Elbow $\frac{1}{2}$/$\frac{3}{4}$ Inch Ball Valve $\frac{1}{2}$/$\frac{3}{4}$ Inch Gate Valve $\frac{1}{2}$/$\frac{3}{4}$ Inch Water Circulation Fhp Pump Of Branded Company Flow Measurement Using Measuring Tank With Piezometer, Capacity 25 Ltrs. Sump Tank Capacity: 50 Ltrs Control Panel, On/Off Switch, Mains Indicator Etc.</p>
Item 29	<p>Study of Friction Loss In Straight Pipe, Pipe Fittings, Sudden Enlargement & Contraction Apparatus</p> <p>Straight pipe: GI/copper/ Clear Acrylic Sudden Enlargement : $\frac{3}{4}$ inch to one inch/ $\frac{1}{2}$ inch to $\frac{3}{4}$ inch Sudden Contraction: one inch to $\frac{3}{4}$ inch/$\frac{3}{4}$ inch to $\frac{1}{2}$ inch Bend $\frac{1}{2}$/$\frac{3}{4}$ inch Elbow $\frac{1}{2}$/$\frac{3}{4}$ inch Ball valve $\frac{1}{2}$/$\frac{3}{4}$ inch Gate valve $\frac{1}{2}$/$\frac{3}{4}$ inch Water Circulation FHP Pump of branded company Flow Measurement Using Measuring Tank with Piezometer, Capacity 25 Ltrs. Sump Tank Capacity: 50 Ltrs Control Panel, On/Off Switch, Mains Indicator etc. Fitted with different types of manometer</p>