

## INVITATION FOR QUOTATION

ESE/2015/

Dated: 09/12/2015

To,

### Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I, II & III.

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	Env. Pollution & Remediation Lab-I (Microwave Digester) Annexure-I	01	45	Department of Env. Sc. & Engg., GJUS&T, Hisar (Haryana)	Yes
2	Env. Pollution & Remediation Lab-II (High Performance Liquid Chromatography System) Annexure-II	01	45	Department of Env. Sc. & Engg., GJUS&T, Hisar (Haryana)	Yes
3	Env. Pollution & Remediation Lab-III (TOC Analyzer) Annexure-III	01	45	Department of Env. Sc. & Engg., GJUS&T, Hisar (Haryana)	Yes

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase II** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
  - 3.1 The contract shall be for the full quantity as described above.
  - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
  - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
  - 3.4 Applicable taxes shall be quoted separately for all items.

- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **45** days after the last date of quotation submission.
6. Evaluation of Quotations,  
The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which
- 6.1 are properly signed ; and
- 6.2 confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. 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.
- 8.1 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.
- 8.2 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.
9. Payment shall be made in Indian Rupees as follows:  
**Delivery and Installation - 0% of total cost**  
**Satisfactory Acceptance - 100% of total cost**
10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.
- 11. You are requested to provide your offer latest by 15:00 hours on 24.12.2015.**
12. Detailed specifications of the items are at Annexure I, Annexure-II & Annexure-III respectively.
13. Training Clause (if any) **Yes**
14. Testing/Installation Clause (if any) **Yes**
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. Sealed quotation to be submitted/ delivered at the address mentioned below,  
**Chairperson, Department of Env. Sc. & Engg.,(TB-4,First Floor, Room No. 206),Guru Jambheshwar University of Science & Technology, Hisar, Haryana**
17. We look forward to receiving your quotation and thank you for your interest in this project.
18. You are required to submit performance bank gurantee for the warranty period of the item@10% of purchase order in the name of Registrar, Guru Jambheshwar University of Science & Technology, Hisar, Haryana

(Authorized Signatory)  
Name & Designation

**TECHNICAL SPECIFICATIONS OF MICROWAVE DIGESTION SYSTEM**

- The maximum magnetron microwave power should be 1500-1800 W or better.
- Volume of the chamber: 40 litres or above .
- Rotor vessels are 12-15 per run.
- Volume of the vessel is 60 ml or above.
- Maximum sustained pressure is 10-15.0 MPa with pressure setting and pressure control accuracy.
- Highest sustainable temperature: 250-300°C or better.
- Direct sensing and control of sample temperature to ensure reproducible digestion each time.
- Stainless steel cavity\_coated with multilayer PTFE (PFA) to resist corrosion by" any acid and alkali liquids and gases.
- Protection shield around the reaction vessels.
- Release of acid fumes into collection reservoir in vessel carousel.
- Rupture disk and vent detection mechanism on each vessel for automatic power shut down in response to over pressure.
- The rotor vessel with pressure sensor and anti-explosion mechanism to control pressure in all vessels.
- The rotor vessel with pressure sensor and anti-explosion mechanism to control pressure in all vessels.
- Online EPA protocols and method directory, full compliance with EPA method.

Annex-II

**TECHNICAL SPECIFICATIONS FOR HIGH PERFORMANCE LIQUID  
CHROMATOGRAPH SYSTEM (HPLC)**

**I. PUMP**

A. Solvent Delivery unit : 4 Nos.

High Pressure Independent pumps - with flow rate of Each pump set between 0.001 to 10 ml/min, rate accuracy should be  $\pm 1\%$  or  $\pm 2\mu\text{L}/\text{min}$ , flow rate precision should be  $< \pm 0.06\%$  RSD. Pressure operation range : 10-400 Kg/cm<sup>2</sup>.

B. Gradient Mixer

**II High Sensitive UV Visible Detector with built in temperature controlled flow cell**

Wavelength range 190 nm - 600 nm or better

No. of diode elements – 512. Lamp D<sub>2</sub>

Wavelength accuracy  $\pm 1$  nm.

Drift  $< 5 \times 10^{-4}$  AU/Hour

Noise Level :  $\pm 0.35$  to  $0.6 \times 10^{-5}$  AU.

**III. Manual Injector**

**IV. Column Oven :**

Temperature Setting range : 4 °C to 60 °C, temp control precision: 0.1 °C

Temperature control range : 10 °C below ambient to 85 °C

**V** Suitable HPLC Columns 2 No. (C-8 & C18)

**OPTIONAL:**

**A. Installation Accessories :**

Latest P-IV or above PC or MAC Computer, HP LaserJet Printer ,2KVA UPS with 30 minutes Battery back-up,

Sample & Solvent filtration assembly with Vacuum Pump for filtration & degassing of mobile phase & sample.

Auto Sampler

Sample capacity : 100x2 ml or above

Injection volume : 0.1 to 100 ul

Injection volume precision : 0.3% RSD or better

Carry over :  $< 0.05\%$

Injection speed: 10sec/10ul.

Carry over – near zero to 0.005% max.

Injection Volume Precision : 0.3% RSD

Sample cooler

Capable of accommodating multiple volume racks : 2 nos.

**TECHNICAL SPECIFICATIONS OF TOC ANALYSER**

- TOC Analyzer along with latest PC or MAC Computer complete with all accessories should be based on microprocessor and compatible with PC software with facility for direct measurement of Total Carbon (TC), Inorganic Carbon (IC) and Total Organic Carbon (TOC), NPOC in all types of aqueous samples, Solid and gaseous samples.
- TOC should be based on High Temperature catalytic combustion with Non-dispersive infrared (NDIR) detector system. The system should have oxidation capability to meet standard method prescribed in USEPA 9060A.
- System should have blank check program to automatically conduct & correct blank check.
- Instruments should have measuring range at least from 4ppb to 30,000 ppm or better.
- Automatic multipoint calibration facility with single standard and to selected optimum calibration curve for sample measurement.
- Sample Injection Volume: 10 to 2000microL variable or better.
- Measurement Time: 3 Minutes or better.
- Reproducibility Precision: +/- 1.5%.or better.
- Automatic sample injection without auto sampler and the system should accept aqueous samples having suspended solids.
- System should have Automatic Changing of conditions and re- measurement of out of range samples
- Automatic exclusion of anomalous values and Re-calculation at repeated measurement.
- Automatic acidification & sparging with or without auto sampler.
- Automatic dilution of out of sample ranges.
- A separate Auto sampler which can handle at least 8 or more samples simultaneous.
- TOC analyzer should have separate facility for the direct measurement of all type of solid samples and should have separate furnace for provision to introduce and analyze liquid or solid samples without changing any hardware. System should not require any consumables accessories to perform the solid samples analysis.
- Measuring range: TC: up to 30 mg carbon
- A separate unit for measurement of Total nitrogen in aqueous samples based on Chemiluminescence methods. Range 0-10,000mg/L, Detection limit 5µg/L
- System should have an separate accessory for the measurement of all types of gas samples by applying samples through micro liter injection to the system.
- The system should measure TC, carbon dioxide and TOC of a Gas sample.
- Should supply 2 nos. of Innox Pure Zero Air cylinder.
- Supplier should supply the complete list and performance certificate list in India alongwith manual and other accessories.

**SUPPLIER DETAILS**

Supplier Name		Address	
City		State	
Supplier Source		Name of Representative	
PIN Code		Phone Number	
FAX Number		Email ID	
TAN Number		PAN Number	
TAX Number			

## FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: \_\_\_\_\_

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
<b>Total Cost</b>							

Gross Total Cost (A+B): Rs. \_\_\_\_\_

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. \_\_\_\_\_  
— (Amount in figures) (Rupees \_\_\_\_\_ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of \_\_\_\_\_ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No: \_\_\_\_\_