



## INVITATION LETTER

Package Code: TEQIP-III/UP/biej/91  
Package Name: CH-High Performance Liquid  
Chromatography

Current Date: 23-May-2019  
Method: Shopping Goods

### Sub: INVITATION LETTER FOR High Performance Liquid Chromatography

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,

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	CH-High Performance Liquid Chromatography	1	BIET, Jhansi	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 III** 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, initialling, 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 **60**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:
- Satisfactory Delivery and Installation - 90% of total cost**  
**Satisfactory acceptance after one month - 10% of total cost**
10. Liquidated Damages will be applied as per the below:  
Liquidated Damages Per Day Min % : N/A  
Liquidated Damages Max % : N/A
11. All supplied items are under warranty of **36** months from the date of successful acceptance of items and AMC/Others is .
12. You are requested to provide your offer latest by **15:00** hours on **13-Jun-2019**.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any) **Yes**
15. Testing/Installation Clause (if any) **Yes**
16. Performance Security shall be applicable: **0%**
17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
18. Sealed quotation to be submitted/ delivered at the address mentioned below,  
**Bundelkhand Institute of Engineering & Tech., Jhansi, Uttar Pradesh, 284128**
19. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

**(Prof. Mukesh Shukla)**  
Nodal Officer Procurement  
TEQIP-III, BIET, Jhansi

## Annexure I

Sr. No	Item Name
1	CH-High Performance Liquid Chromatography
	<b>Specifications</b>
	<p>The HPLC system should be an all-in-one system with system controller, solvent delivery pump, auto sampler, detector and column oven readily available and integrated into a single system. The system should have one-button power on function to activate all compartments concurrently. The system should also allow further addition of optional detector for simultaneous multiple component analysis.</p> <p><b>1) Quaternary Gradient PUMP with in-built Degassing Unit:</b></p> <ul style="list-style-type: none"><li>• The flow rate should be set between 0.0001 to 10 ml/min.</li><li>• Flow rate accuracy should be <math>\pm 1\%</math> or <math>\pm 2 \mu\text{l}/\text{min}</math> of set value whichever is larger</li><li>• Flow rate precision should be less than <math>\pm 0.06\%</math> RSD.</li><li>• Gradient curve setting function should be available.</li><li>• Operating Pressure range should be more than 6000 psi, with the option to upgrade to higher pressure tolerance should be available for fast LC method, not less than 9,500 psi.</li><li>• The basic pump performance able to run HPLC method and should be fast LC analysis ready.</li><li>• Inbuilt degassing unit with 5 flow lines (4 ports for mobile phase, 1 port for rinse solution) with membrane-type online degassing.</li><li>• Leak sensor should be available for safety purpose.</li></ul> <p><b>2) Auto-Sample Injector: with Cooler</b></p> <ul style="list-style-type: none"><li>• Auto sampler design should be a total sample injection design with variable injection volume.</li><li>• Sample Cooler : 4-45 °C</li><li>• Sample injection volume setting range should be between 0.1 <math>\mu\text{l}</math> to 100 <math>\mu\text{l}</math>, with option to increase injection volume to 2,000 <math>\mu\text{l}</math>.</li><li>• The Carry over must be below 0.003%.</li><li>• Injection volume accuracy must be <math>\pm 1\%</math>.</li><li>• Number of samples to be processed automatically, random access up to 336 positions for 1ml vial volume, 216 for 1.5ml, 112 for 4ml, 384 for 4X96 wells micro titre plates, 1536 for 4X384 wells micro titre plates, 384 for 4X96 wells deep-well plates, 1536 for 4X384 wells deep-well plates.</li></ul> <p><b>3) Column Oven:</b></p> <ul style="list-style-type: none"><li>• It should be forced-air-circulation type for uniform temperature distribution with a quick feedback mechanism to maintain constant temperature level.</li><li>• The temperature setting range should be ambient 4°C to 90°C</li><li>• Temperature accuracy should be <math>\pm 1^\circ\text{C}</math></li><li>• The oven compartment should be able to contain at least 3 nos. of 30 cm column.</li></ul> <p><b>4) Photo Diode Array Detector.</b></p> <ul style="list-style-type: none"><li>• Wavelength range: 190 nm to 800 nm with 1024 elements</li></ul>

- Device resolution should be at 0.6 nm
- Spectral Bandwidth : 20 nm
- Wavelength accuracy :  $\pm 1$  nm
- Drift must be equal or smaller than  $0.5 \times 10^{-3}$  AU/Hour
- Noise must be equal or smaller than  $0.3 \times 10^{-5}$  AU
- Temperature controlled flow cell between 19 to 50 °C
- Built in Holmium oxide filter for wavelength accuracy check.
- Facility for intelligent peak deconvolution & dynamic range extension through software.

### **5) Workstation Software:**

A Workstation Software for controlling the entire HPLC System through PC should be offered. The Software should be user friendly and based on Windows. Software should support all Quantization features such as Area Normalization, Internal and External Standards, SST, Custom reporting, Audit trails and GLP features. The Software should include complete System Suitability Test functions (SST) functions as per BP/USP etc.

### **6) Fluorescence Detector**

- The light source should be a Xenon lamp and a low-pressure mercury lamp should be available as an option for checking wavelength accuracy
- The wavelength range should be 200nm to 650nm. An option should be available to achieve the range of 200 to 750 nm
- The Spectral bandwidth should be 20nm
- Wavelength accuracy should be  $\pm 2$ nm
- Wavelength reproducibility should be  $\pm 0.2$ nm
- The Signal to noise ratio for Water Raman peak should be minimum 1200
- A conventional flow cell [12  $\mu$ L volume, 2 MPa pressure max.] should be available as standard
- Cell temperature control from 4°C to 40°C in 1°C step should be available as an option.
- The detector must be capable of monitoring any 2 wavelengths between 200 and 650nm simultaneously.
- For ease of maintenance, the xenon lamp and flow cell must be accessible from the front panel with no tools required and alignment free.

### **7. Columns:**

- Two C18 Columns: 4.6x150mm & 4.6x250mm
- Two C8 Columns: 4.6x150mm & 4.6x250mm
- Temperature range: 5 °C above ambient to 80 °C
- Column capacity: 2 columns up to 30 cm and 4.6 mm ID
- Temperature stability: 0.10 °C sensor
- Temperature accuracy: 0.5 K

### **8. Consumables:**

- Clear auto sampler
- vials: 1000
- D2 Lamp for PDA: 1
- Flow cell for PDA: 1
- PEEK Ferrules: 40
- PEEK Tubing's: 6 m

**9. Computer:**

Processor Intel Core i7-4670 Processor (3.4GHz, 6M Cache), HDD 1TB 7200RPM, Graphics: Intel HD Integrated Graphics, Memory 4GB X 2 DIMM 1600MHz, Optical DVD Recordable, Wireless WiFi Operating System Window 7 or above, cordless mouse and Keyboard.

**10. Printer:**

LaserJet printer with print, scan & copy options should be quoted along with system.

**11. Warranty:**

3 years' warranty should be provided on complete system

**12. Training & Installation:**

Training & Installation package must include in house training and 5 years AMC.

**13. UPS:**

UPS 3.5 online KVA locally.

**14. Important Note: -**

- a) Vendor should have ISO 9001 Certification.
- b) All the requirements laid down under the above specifications must carefully read and understood before claiming your instrument as "complied".
- c) the instrument should be complete in all respect with all accessories and chemical required in sufficient quantity so as to run directly.
- d) the total cost of the package should include all above items, 5 year AMC, training, consumables, etc.

## 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. \_\_\_\_\_