



ICAR - SUGARCANE BREEDING INSTITUTE
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**NOTICE INVITING TENDER THROUGH GOVERNMENT e-MARKETPLACE (GeM)
FOR PURCHASE OF SEMIPREPARATIVE HPLC AT ICAR-SUGARCANE BREEDING
INSTITUTE, COIMBATORE, TAMIL NADU.**

Online Bids under two bid systems (viz. Technical Bid & Financial bid) is invited on behalf of the Director, ICAR-Sugarcane Breeding Institute, Coimbatore - 641007 (Tamil Nadu) through GeM.

The details of tender is enumerated in the following annexures. Please read the annexures attached before bidding.

Annexure-I	General Terms & Conditions
Annexure-II	Technical Specification of the Semipreparative HPLC

IMPORTANT NOTES: -

- I. Bids received on GeM portal only will be considered. Bids in any other form sent through sealed cover/email/post/fax etc. will be rejected.
- II. The bidders are required to deposit **Bid security/ Earnest Money Deposit (EMD) of Rs.1,80,000/- (Rupees one lakh eighty thousand only)** in the form of Demand Draft/Fixed Deposit Receipt/Banker's Cheque or Bank Guarantee from any of the commercial banks payable to the Director, ICAR-Sugarcane Breeding Institute, Coimbatore-641007, **within 5 working days of bid opening date**, failing which the bid will be treated as incomplete & lead to rejection of the bid without making any reference to the bidder. The Bid Security/EMD should be valid for 45 days beyond the bid validity.
- III. ICAR-SBI reserves the right to accept / reject any or all the tenders in part / full without assigning any reason thereof.
- IV. Any change / corrigendum/ extension of opening date in respect of this tender shall be issued through GeM/Institute Website only and no press notification will be issued in this regard.
- V. In case, any holiday is declared by the Government on the day of opening, the tenders will be opened on the next working day at the same time. The Institute reserves the right to accept or reject any or all the tenders.
- VI. The bidders are required to furnish / upload copies of the following documents:
 1. Signed & scanned copy of Firm's registration.
 2. Signed & scanned copy of GST Registration certificate.
 3. Signed & scanned copy of PAN Card.
 4. **Technical Bid** : Signed and Scanned Copy of Completely filled Technical Verification data sheet (Technical Compliance Statement) must be submitted for each quoted configuration..

5. **Financial bid** : Financial bid indicating item-wise price for the items mentioned in the technical bid is to be uploaded separately.

NOTE:

EACH OF THE ABOVE DOCUMENTS ARE TO BE UPLOADED AS A SEPARATE FILE. THE BIDS WITHOUT THE ABOVE DOCUMENTS WILL BE REJECTED SUMMARILY.

Bidders are required to furnish the following undertaking :

We agree to supply the above goods and allied services. We confirm that the same will meet the description, specification and other technical details as required in the tender enquiry.

We conform that we agree to all other terms and conditions of your tender enquiry including the terms of delivery, period of delivery and warranty provision.

We have furnished all the information, as required in the tender enquiry and attached the relevant documents.

We confirm that our offer will remain valid for acceptance for **180 days** after the date of opening of tenders.

ANNEXURE-I

i. Terms of delivery:

Delivery at site viz. - ICAR - SUGARCANE BREEDING INSTITUTE, COIMBATORE-641007 (TAMIL NADU)

- ii. **Performance Security:** To ensure due performance of the contract, performance security is to be furnished by the successful bidder for an amount of 3% of the value of the goods in the form of Account payee Demand draft / Fixed Deposit Receipt / Bank Guarantee in favour of the Director, ICAR-Sugarcane Breeding Institute, Coimbatore payable at Coimbatore to be furnished **within 15 days** from the date of issue of award of contract. The Performance security should be **valid up to 60(sixty)** days after the date of completion of all contractual obligations by the Supplier, including the warranty obligations.
- iii. **Delivery period for goods:** Within **15 days** from the date of the purchase order
- iv. Erection/installation and commissioning (if required, depending on the goods ordered) are to be completed within **10 days** of delivery of the goods at site.
- v. **Payment Terms:** Payment will be made after delivery of the item and satisfactory installation of the item.

vi. Price structure:

- a. The tenderer shall quote for the complete requirement of goods and services and for the full quantity as shown against in **Annexure-II.**
- b. The rates and prices quoted shall be in Indian Rupees only.
- c. All duties, taxes and levies payable by the supplier under the contract shall be included in the quoted price. The purchaser will not pay any such duties, taxes and levies separately.
- d. The rates and prices quoted by the supplier shall remain firm and fixed during the currency of the contract and shall not be subject to variation on any account, whatsoever, including statutory variations, if any.
- e. The quotation/offer shall remain valid for acceptance for a period not less than 180 days after the specified date of opening of the offers.
- e. TDS on Income Tax/GST will be deducted as per existing rules and the same will be remitted to the department concerned.
- vii. At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to 25%, the quantity of goods and services without any change in the unit price or other terms and conditions.
- viii. The supplier shall at all times indemnify the purchaser, at no cost to the purchaser, against all third party claims of infringement of patent, trade mark or industrial design rights arising from the use of the goods or any

part thereof, with respect to the goods quoted by the supplier in its offer.

- ix. Notwithstanding the above, the purchaser reserves the right to accept or reject any quotation or annul the tendering process and reject all quotations at any time prior to award of the contract, without assigning any reason, whatsoever, and without incurring any liability or obligation, whatsoever, to the affected tenderer or tenderers.

x. Receipt of goods and terms of payment:

Payment term for supply of goods, including erection/installation and commissioning (as and if applicable): -

Immediately on receiving the goods at site, the purchaser will verify the quantities of the items supplied as specified in the delivery challan of the supplier and also check for any superficial damage etc. in the goods so supplied and issue a provisional receipt accordingly. If the goods supplied do not require erection/installation and commissioning at site, the purchaser, within three working days of issue of the provisional receipt, will issue acceptance certificate (of the goods) to the supplier, provided the goods supplied are acceptable in terms of the contract. However, if the goods supplied also need erection/installation and commissioning, the purchaser will issue acceptance certificate within two working days, after successful erection/installation and commissioning. The supplier will then send its invoice along with the purchaser's acceptance certificate and other accompanying documents to the paying authority for payment.

The paying authority will release the full payment to the supplier as due in terms of the contract, within fifteen working days of receipt of supplier's invoice, purchaser's receipt certificate and other accompanying documents, provided the same are in order.

PAYING AUTHORITY: THE DIRECTOR, SUGARCANE BREEDING INSTITUTE, COIMBATORE - 641 007.

xi. Liquidated Damage Clause:

If any time during the performance of the contract, the supplier encounters conditions hindering timely delivery of the goods, the supplier shall promptly inform the purchaser in writing the fact of the delay and the likely duration of the same. After receipt of supplier's communication, the purchaser shall decide as to whether to cancel the contract for the un-supplied portion after the existing delivery period, or to extend the delivery period suitably issuing an amendment to the contract. If the supplier fails to deliver the goods and/or perform the services within the contractual delivery period for reasons other than circumstances beyond supplier's control (which will be determined by the purchaser) and the purchaser extends the delivery period, the purchaser will also deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% (half per cent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof until actual delivery or performance. The maximum limit of such deduction will, however, be 10% (ten per cent) of the contract price of the delayed goods or services.

Further, during such delayed period of supply and/or performance, the supplier shall not be entitled to any increase in price and cost, whatsoever, on any ground. However, the purchaser shall be entitled to the benefit of any decrease in price and cost on any ground, whatsoever, of the goods and services, supplied during the period of delay.

xii. Warranty Clause: One Year

xiii. Dispute Resolution Mechanism

If any dispute or difference arises between the purchaser and the supplier relating to any matter connected with the contract, the parties shall make every effort to resolve the same amicably by mutual discussions. However, if the parties fail to resolve the dispute or difference by such mutual discussion within 30 days, either the purchaser or the supplier may give notice to the other party of its intention to refer the same to arbitration. The arbitration shall commence thereafter. The arbitration shall be conducted by a sole arbitrator, who will be appointed by the Secretary, ICAR and the procedure to be followed in this respect will be as per the Indian Arbitration and Conciliation Act, 1996. The venue of the arbitration shall be the place from where the contract is issued.

ANNEXURE - II

SEMI-PREPARATIVE HPLC-Technical Specification

The following are the different modules of the semi-preparative HPLC, and technical specifications are given separately for each of the module listed below:

1. Pump
2. PDA detector
3. Autosampler
4. Fraction collector
5. Column holders
6. Software
7. Accessories
8. Other terms and conditions including warranty

1. Technical specifications for PUMP

S. No.	Parameter	Required specification
1.	Pump type	High-pressure binary gradient pump suitable for semi-preparative and analytical HPLC applications.
2.	Pump design/ configuration	Dual-piston reciprocating pump or equivalent low-pulsation pump design capable of delivering accurate and precise solvent flow throughout the specified flow-rate and pressure range, suitable for both semi-preparative and analytical HPLC applications.
3.	Total flow rate range	0.1-40 mL/min or higher total flow. The system shall support operation with analytical columns (4.6 mm ID) and semi-preparative columns (≥ 20 mm ID), enabling analytical method development and semi-preparative purification.
4.	Flow rate accuracy	$\pm 1\%$ or better.
5.	Flow rate precision	$\leq 0.3\%$ RSD.
6.	Maximum operating pressure	≥ 400 bar.
7.	Flow programming	Isocratic and gradient operation.
8.	Gradient composition range	0-100%
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9.	Gradient/ composition accuracy	$\pm 1\%$ or better
10.	Gradient/ composition precision	$\leq 0.5\%$ RSD
11.	Solvent compressibility compensation	Automatic/ user-defined solvent compressibility compensation and flow correction across the entire operating pressure range is preferred.
12.	Solvent mixer	The system is preferred to have an integrated mixer capable of delivering homogeneous solvent composition and reproducible gradient formation throughout the specified operating range. Mixer design and volume shall be compatible for both semi-preparative and analytical HPLC applications without compromising the chromatographic performance.
13.	Optional degasser	Integrated or external online vacuum degasser with continuous degassing of all solvent channels, suitable for semi-preparative and analytical HPLC applications is preferred.
14.	Pump seal wash system	Automated seal wash (plunger rinse) system for all pump heads is preferred.
15.	Leak detection	The system shall have an integrated leak-detection system with audible and/or visual alarm and automatic pump shutdown or equivalent protective action upon leak detection.
16.	Analytical to semi- preparatory scale-up	The system shall support analytical method development and subsequent scale-up to semi-preparative purification using appropriate column dimensions and flow rates.
17.	Instrument control	The complete system shall be controlled through supplied licensed chromatography data system (CDS) software.

2. Technical specifications for PDA DETECTOR

S. No.	Parameter	Required specification
1.	Detector type	Photodiode Array Detector (PDA/DAD) with full spectral acquisition capability.
2.	Wavelength range	190–800 nm or wider.

3.	Diode array elements	A minimum of 1024 photodiodes or an advanced technology capable of providing a spectral resolution of ≤ 1.5 nm.
4.	Wavelength accuracy	± 1 nm or better.
5.	Wavelength precision	± 0.1 nm or better.
6.	Spectral resolution	≤ 1.5 nm.
7.	Baseline noise	$\leq 10 \times 10^{-6}$ AU.
8.	Baseline drift	$\leq 1 \times 10^{-3}$ AU/h.
9.	Linearity	Linear response up to at least 2.0 AU
10.	Data acquisition rate	Up to 80 Hz or higher.
11.	Light source	Light source shall provide continuous spectral coverage over the specified wavelength range (190–800 nm or wider). Detector employing single or dual lamps (deuterium and tungsten/halogen) or other advanced technologies offering equivalent or superior performance shall be acceptable.
12.	Lamp lifetime	The light source shall have a long operational life. For deuterium lamp-based systems, the lamp lifetime shall be $\geq 2,000$ hours.
13.	Flow cell compatibility	The detector shall be supplied with both an analytical flow cell and an interchangeable semi-preparative flow cell, suitable for analytical and semi-preparative HPLC applications.
14.	Temperature control	A thermostatted flow cell or equivalent temperature-stabilization technology is preferred.
15.	Pressure tolerance	The detector flow cell shall be rated to withstand the maximum operating pressure of the supplied HPLC system without compromising performance and safety.
16.	Analytical flow cell	A flow cell with a volume of 8–13 μL and a 10 mm optical path length, or an equivalent configuration providing comparable or superior sensitivity and chromatographic performance.

17.	Semi-preparative flow cell	A suitable semi-preparative flow cell, fully compatible with the supplied detector and HPLC system, shall be provided as part of the standard supply.
18.	Detector control	The detector shall be fully controlled through the supplied licensed Chromatography Data System (CDS) software.
19.	Spectral data acquisition and analysis	The detector and CDS software shall support simultaneous acquisition and storage of full UV-Vis spectral data, peak purity assessment, and simultaneous monitoring, extraction and processing of chromatograms at multiple user-selected wavelengths from a single injection.

3. Technical specifications for AUTOSAMPLER

S. No.	Parameter	Required specification
1.	Autosampler type	High-precision programmable autosampler for analytical HPLC applications. Autosampler supporting both analytical and semi-preparative HPLC applications shall be preferred.
2.	Injection volume range	0.1–100 μ L or wider for analytical applications. If the autosampler supports both analytical and semi-preparative HPLC applications, it shall provide an injection-volume range suitable for the intended semi-preparative operation also.
3.	Injection volume accuracy	$\pm 1\%$ or better
4.	Injection precision	$\leq 0.3\%$ RSD
5.	Carryover (sample-to-sample contamination)	$\leq 0.01\%$, preferably $\leq 0.005\%$
6.	Sample capacity	At least 100 sample positions for standard HPLC vials, or equivalent sample-loading capacity. If the autosampler supports both analytical and semi-preparative HPLC applications, it shall also accommodate suitable larger-volume sample containers for semi-preparative operation.
7.	Sample formats	Standard HPLC vials and microvials/inserts. If the autosampler supports both analytical and semi-preparative HPLC applications, it shall also support suitable larger-volume sample containers for semi-preparative operation.

8.	Optional sample cooling/thermostating	4–40 °C or wider.
9.	Injection modes	Full-loop, partial-loop, programmable variable-volume injection, or equivalent injection modes.
10.	Needle wash	Programmable needle wash system (internal, external, or equivalent) to minimize sample carryover.
11.	Pressure compatibility	Compatible with the maximum operating pressure of the supplied HPLC system.
12.	Control	Fully controlled through the supplied CDS software.
13.	Safety features	Suitable diagnostic and protective features for safe operation, including leak/error detection and system shutdown or equivalent protective action.

Note: For analytical HPLC applications, sample introduction shall be through the autosampler only. For semi-preparative HPLC applications, sample introduction may be through either (i) an autosampler compatible with both analytical and semi-preparative applications, or (ii) a manual injector fitted with an appropriate sample loop suitable for the supplied semi-preparative HPLC configuration.

4. Technical specifications for FRACTION COLLECTOR

S. No.	Parameter	Required specification
1.	Fraction collector	Automated fraction collector suitable for analytical and semi-preparative HPLC purification.
2.	Collection modes	Time-based and detector signal (peak)-based collections.
3.	Control	Fully programmable and integrated with the supplied Chromatography Data System (CDS).
4.	Triggering	Compatible with detector-triggered fraction collection, using the supplied PDA detector
5.	Collection vessels	Compatible with multiple vessel formats and sizes suitable for fraction collection.
6.	Flow-rate compatibility	Compatible with the full analytical and semi-preparative flow-rate range of the supplied HPLC system.
7.		

	Fraction handling	Automatic collection and switching between collection vessels and waste.
8.	Capacity	Shall accommodate an adequate number of collection vessels for unattended operation.
9.	Delay volume compensation (Preferable)	Automatic or programmable fraction delay-volume/time compensation.
10.	Application suitability	Suitable for routine purification, fraction recovery and method scale-up applications.

5. Column holders

Suitable column holders shall be provided to accommodate the supplied analytical and semi-preparative columns. The holder(s) shall support columns of appropriate lengths and internal diameters used with the supplied HPLC system and allow convenient column changeover.

6. Technical specifications for SOFTWARE

S. No.	Parameter	Required specification
1.	Software license	Licensed Chromatography Data System (CDS) software shall be supplied for complete operation of the HPLC system.
2.	Operating system compatibility	Software shall be compatible with current Microsoft Windows operating systems.
3.	Instrument control	Software shall provide full control of all supplied HPLC modules, including pump, injector/autosampler, detector, column oven and fraction collector.
4.	Data acquisition and processing	Software shall support data acquisition, chromatogram processing, integration, quantification and report generation.
5.	Software updates	Software updates, bug fixes and version upgrades released during the warranty period shall be provided without additional cost.

7. Accessories

1. Branded workstation computer suitable for HPLC-CDS operation with Intel Core i5 processor or equivalent/better.
2. Minimum 16 GB RAM and 1 TB SSD storage or equivalent high-performance configuration.

3. Minimum 22-inch monitor with standard keyboard and optical mouse.
4. Licensed Microsoft Windows OS supported by the supplied CDS software.
5. Online UPS minimum 3 kVA with 1 hour backup for complete HPLC system and workstation.
6. An analytical C₁₈ column 250 mm × 4.6 mm, 5μm
7. A semi-preparative C₁₈ column 250 mm × 20/21.2 mm, 10μm

8. Other terms and conditions including warranty

1. The supplier shall have to provide a minimum comprehensive onsite warranty of one year from the date of successful installation, commissioning, and acceptance of the HPLC system.
2. The warranty shall be comprehensive and unconditional, covering the complete system including analytical and semi-preparative modules, comprising (but not limited to) pump, detector, autosampler, manual injector assembly, column oven, fraction collector and Chromatography Data System (CDS) software.
3. The warranty shall include free repair/replacement of defective parts, labour, service charges and onsite technical support without any additional cost.
4. Extended warranty beyond the initial one-year period up to three years may be quoted separately as optional, and shall be considered for evaluation in the bid document.
5. The OEM (Original Equipment Manufacturer) should have a minimum of 20 years' experience in the design, manufacture and global supply of HPLC systems, and should have successfully installed at least 50 HPLC systems in India during the last 10 years (2015-2025). Documentary evidence in support of the above, such as company profile, product literature, client certificates, purchase orders, installation reports or other relevant documents, shall be submitted along with the bid. The bidder shall also furnish a list of installations of the offered model or similar HPLC systems supplied to ICAR and CSIR Institutes, IITs, Central Universities, National Research Laboratories, Government-funded Research Institutions, or equivalent organizations in India, indicating the name of the institution, model supplied and year of installation.
6. Onsite training on instrument's operation and applications.
7. The offered HPLC system and all accessories shall be brand new and manufactured not earlier than 12 months prior to the date of supply/installation. Documentary proof of manufacturing date shall be provided.



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