TAMIL NADU Dr. J. JAYALALITHA FISHERIES UNIVERSITY
Institute of Fisheries Postgraduate Studies
Vaniyanchavadi, Chennai– 603 103

TENDER SCHEDULE

Tender for the supply and installation of **High Performance Liquid Chromatography**

Issued to: -

DEAN (Basic Sciences)
TNJFU, OMR campus,
Vaniyanchavadi,
Chennai - 603 103

High Performance Liquid Chromatography (HPLC with PDA & FL Detector) Specifications:

All components of the HPLC System should be from the same supplier and software integrated.

Supply, Installation and Commissioning of High Performance Liquid Chromatography (HPLC) consisting of Quaternary Gradient Pump, Auto sampler, Photo-diode array Detector, Fluorescence Detector, Columns and Accessories

Technical specifications and operational features of different components of HPLC System as follows:

1. Solvent delivery system (Pump)

- Quaternary Gradient Solvent delivery system
- Flow rate 0.001 to 10 ml/min
- Flow rate accuracy ±1
- Flow rate precision ±0.06% RSD
- Maximum pressure setting range 5,500 psi or above
- Safety measures: Liquid-leakage sensor
- Vacuum Degasser: Flow lines- 4 or more
- Safety Feature: Leak Sensors & safe leak handling.
- The pump should have GLP/FDA features compliance like maintenance feedback for continuous tracking of instrument usage with user settable limits and feedback messages.

- Front Panel Control with display should be offered facilitating control from the system as well as from the PC based Software.
- Suitable gradient mixer, reservoir tray with Solvent Bottles and rinsing kit for pump washing should be offered

2. Auto Sampler with Sample Cooler

- Injection Method: Total-volume sample injection, variable injection volume.
- Injection volume setting 0.1 ul to 100ul
- The Carry over must be below 0.005% or better, as lowest carryover is preferred for accurate analysis data.
- Injection volume accuracy : 1%
- Injection precision RSD : 0.3% or better
- Number of samples to be processed automatically 60 Nos. of 1.5ml Vial or more
- Auto sampler should be capable of handling thermally liable samples and should come with sample cooler offering temperature control from 4 to 40 deg C
- Block cooling/heating should be used together with dehumidifying function
- Safety Feature: auto leak sensors.

3. Column Oven:

- Column oven should have both heating and cooling option
- Column oven should have capacity to accommodate 2 or more columns of 25 cm size.
- Temperature range should be 4-60°C or better
- Temperature precision 0.1°C

4. Photo Diode Array Detector

- Light source: Deuterium (D2) lamp, tungsten (W) lamps
- Number of diode elements: 1024
- Wavelength range: 190 nm to 800 nm or higher
- Slit Width : 1.2nm and 8nm
- Wavelength accuracy: ± 1 nm
- Noise: ≤ $\pm 3 \times 10^{-6}$ AU
- Drift: 4×10^{-4} AU/hour or better
- Linearity: 2.5 AU or better (ASTM standard)
- Flow Cell: Optical wavelength; 10 mm, Capacity: 10 µL or more, Pressure: 1700 Psi.
- Temperature Controlled Flow cell unit
- Automatic peak integration and peak de-convolution function to be built-in feature
- Functions: Suitable peak purity software, Auto threshold for peak purity
  3D Spectral contrast algorithm account for random system noise in spectral noise in spectral comparisons.

5. Flourescence Detector

- Light source : XENON lamp
- Wavelength range : 200 to 650 nm
- Bandwidth : 20 nm

- Wavelength Reproducibility : 0.2 nm
- Wavelength Accuracy: ±2 nm
- S/N Ratio for Raman water peak should be minimum 1000 nm
- Flow cell : Volume 12 µL; Pressure resistance 2 MPa
- Capable of monitoring any two wavelength between 200 to 650 nm

6. Columns

- Analytical Column- C18 25 cmx4.6 mm id,5 micron (1.no)
- Suitable HPLC column and standard kit for aminoacid applications.

7. Accessories

- Suitable 3 KVA UPS with 1 hour back up should be provided along with the system
- Suitable vials of 500nos should be given with system
- Vibration free table with granite top and power plugs for HPLC system should be supplied

8. Software

- Software compliant with GLP standards and capable of controlling all the HPLC Modules through PC with data acquisition, data control, chromatogram and special analysis facilities.
- Easy operation with Windows based software
- System suitability, System security as well as System check functions has provided which comply with Good Laboratory Practice & Good Manufacturing Practice (GLP&GMP)
- US FDA 21 CFR part 11 compliance
- Suitable branded latest computer system: 8GB RAM or higher, 1TB HDD, RWDVD Drive with licensed operating system (latest and compatible window) having 24 inch (approx.)monitor of latest technology.

9. Terms and Conditions

- Warranty: 2 years.
- User list: Should provide minimum 5 no's of Performance Certificates of quoted HPLC system from IITs, IISERs, State/Central Universities, CSIR Labs and ICMR Institutions only to be enclosed.
- List of Users of the Quoted HPLC System with Phone no, Email id should also be enclosed
- On-site Training & Demonstration: Operational training & demonstration programme should be provided onsite by the vendor as and when required by the user scientists
- The Bidder should have Service staff and Service Centre preferably in Chennai.
- The offer should clearly mention the Part No and Model Quoted along with the technical specifications. Original brochures and specification sheets should be enclosed in the technical bid of the offer. Detailed compliance Statement highlighting the compliance towards the tender specification should be enclosed along with documentary evidence.

- Compliance report to be submitted in a tabulated and point wise manner clearly mentioning the page number of Original catalogue / data sheet.

SPECIAL CONDITIONS:

1. Price should be quoted in Indian Rupees and paise for the main equipment and all the accessories.
2. Price and taxes should be quoted separately.
3. Price quoted should be for delivery and installation of the instruments at site.
4. Accessories, UPS, compatible PC and other sources may be from own source or from third party producers.
5. Such third party manufacturers of accessories who fulfill the general conditions furnished above should be included in the tender.
6. Five years warranty period should cover all third party accessories quoted.
7. The manufacture of the third party accessories should have sales and service network in Tamil Nadu.
8. Service and warranty policies of the third party accessories should be given in the technical bid of the tender.
9. Other service conditions are given with separate sheet attached with the schedule.

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TENDER FORM AND CONDITIONS

No.1165 /TNJFU/DN/ IFPGS/ NABARD/ HPLC/ VK/2020/ dated. 05.08.2021

I. **GENERAL:**

Last date for submission of Tender is **25.08.2021** at 5.00 PM. Technical bid cover will be opened on **26.08.2021** at 11.00 AM and scrutinized and the financial bid cover will be opened on **28.08.2021** at 11.00 AM. Tender should state in the body of their letter whether they are

i) Manufactures
ii) Manufacture's authorized agents
iii) Holders in stock of the stores tendered for

II. **DEVIATION FROM SPECIFICATION:**

Tender for the supply and installation of **High-Performance Liquid Chromatography (HPLC) (1 No.)** with online UPS and accessories is invited.

The tenderers are requested to study the specifications stated below:

Specification : as given in the schedule
Nos. required : 1 No

SERVICE CONDITION:

Guarantee period and after sales service conditions should be mentioned. In case of deviation or alteration the same should be brought out boldly and prominently in the offer made.

III. Any terms or conditions not brought out in the body of the offer will not be considered.

IV. In case any condition or terms of contract applicable in the invitation of tender is not acceptable to the tendering firm they should specifically state deviation therein from the body of their tender.

V. In the body of the letter, the tenderer should specifically state that he agrees for sole arbitration by the Dean (Basic Sciences), Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu.

VI. PRICE:

a) Price should be quoted in Indian Rupees and paise for the main equipment and all the accessories.
b) The unit price should be for the equipment as indicated in the schedule of tender enquiry and not for any other equipment.
c) Price quoted should be for delivery at site, as specified by The Dean, Institute of Fisheries Post Graduate Studies, TNJFU- OMR Campus, Vaniyanchavadi, Chennai-603 103 in the supply order inclusive of charges such as packing and forwarding.
d) Discount if any, should be indicated prominently.
e) Prices quoted shall be firm in all respects and for each equipment.
f) Tenders with price variation basis will not be accepted.
g) The offer should be kept valid for **six months** from the date of tender and supply is expected before **31.10.2021**

VII. The tenderer is solely responsible for the equipment till delivered and demonstration of the equipment to be conducted.

VIII. **Earnest Money Security Deposit and Execution of Agreement:**

Each tender should be accompanied by an **Earnest Money Deposit of 1% of the total value of the equipment,** in the form of demand draft drawn in favour of the **Dean, Faculty of Basic Sciences, Institute of Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu.** failing which the tender will not be considered. **Cheques and cash will not be accepted**. If for any reason the tenderer withdraws the tender before or after being selected or before being rejected by the competent authority, the Tamil Nadu Dr. J. Jayalalithaa Fisheries University reserves the right to forfeit the deposit in part or in full. **The earnest money deposited will be refunded to the unsuccessful tenderers. In the case of successful tenderers, the amount will be adjusted towards Security Deposit.**

The successful tenderer (hereinafter referred to as contractor) shall also furnish a security deposit of not less than 5% of the total value of the contract subject to maximum of Rs. 30,000/- within 15 days from the date of intimation of the acceptance of the tender. The Security deposit will be inclusive of the Earnest Money Deposit, already remitted.

The security deposit will be refundable only after the expiry of a period of ONE YEAR from the date of handing over the stores in working conditions/completion of the work to the full satisfaction and upon the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu issuing a certificate that no amount is due from the contractor under the agreement and that the contractor executed on a non-judicial stamp paper of the value to be fixed incorporating the terms and conditions of the contract within one month from the date of intimation of the acceptance of the tender. In case of default of these conditions i.e. remitting security deposit and executing agreement within the time allowed, the earnest money deposit will be forfeited without prejudice to any other right of the University will also be entitled to make other arrangement for obtaining these items from others and recover from the contractor any excess expenditure or cost incurred by the University over the contract price together with all charges, expenses and damages attending to such purchase, provided the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu. in specific circumstances in the matter of payment of security deposit and execution of agreement.

IX. DELIVERY:

The supplies shall be subject to inspection and acceptance or rejection by the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu, shall from time to time name and appoint for the purpose, the said person to be named and appointed being hereinafter referred to as the Inspection Officer.

The supplies made by the tenderer which in the opinion of the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu, or the Inspecting Officer in bad order, unsound in quality or description or not in accordance with specifications as have been prescribed in that behalf or otherwise faulty or unfit for use, shall be rejected.

The supplies so rejected shall be removed by and that the expenses of tenderer within 15 days after he has been given notice of the rejection. If not taken away, the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu, may ask the goods to be removed and disposed off in the manner he may deem fit and recover from the tenderer the expenses incurred in such removal and disposal.

The substitution of supplies which have been rejected by the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu, or the Inspecting Officer in whole or in part under the provisions herein before contained the tenderer shall and will within the time permitted by the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR

Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu, or the Inspection officer after such rejection shall have been notified to him as aforesaid supply and delivery without causing any extra cost of expenditure. If not so supplied and delivered by the tenderer or substitution as aforesaid and also in case of failure by the tenderer to supply and deliver supplies demanded from him under this tender within the period prescribed for supply and delivery, the Dean, Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai-603 103, Tamil Nadu, or the inspecting Officer shall have power to purchase from others in lieu of rejected or not delivered goods and any excess expenditure or cost incurred by the University over and above the tenderer price together with all charges and expenses attending to the purchase shall be recoverable from the tenderer. Nothing herein contained shall prejudice any other right of the University in that behalf under the tender or otherwise.

X. **A Guarantee towards the supply of spare parts if any when required on the agreed basis for an agreed price.**

XI. **The tenderer shall furnish the following guarantee:**

A guarantee to the effect that articles supplied shall be of the best quality and workmanship and shall be in with such quantities and such price. A guarantee for a period of one year or more from the date of handing over the equipment and systems and any defects in their proper function during the guarantee period should be rectified by the tenderer free of charge. If during the guarantee period, the supplies are found not to the description and quality offered by the University will be entitled to reject the articles and the supplier shall replace or pay the University such damages as may arise including the replacement of cost and towards delay and damages. Nothing herein continued shall prejudice any other right of the University if that behalf under the tender or otherwise.

XII. **TRANSFER OF SUPPLY:**

The tenderer shall not transfer or assign the supply or any part there or any interest therein directly or indirectly to any person or persons whomsoever without the written consent of the University.

XIII. If the supply order is placed on a higher tenderer as a result of inability of the tenderer then he will be liable to pay the University the difference between the supply rate and that the lowest acceptable tender. This is in addition to and without prejudice to other rights under the terms of the tender.

XIV. **INSTALLATION AND TESTING:**

All deliveries of goods should be accompanied by invoice bills in triplicate to the officer at site to whom the goods are supplied.

a) The time allowed for completion of supply and delivery as prescribed including demonstration under the conditions of the tender is the essence of the tender.
b) Without prejudice to other rights under the terms of this tender or otherwise.
    i) If the tenderer fails in the due performance of his/her supply within the time fixed in the supply or any extension thereof, the tenderer is liable to pay as liquidated damages up to 2% per month of the supply value of such portion of the materials as have not been delivered, installed and commissioned and having been delivered, installed and commissioned cannot in consequence of the delay be used efficiently during each month between the appointed or extended time as the case may be and the actual time or delivery installation.

The tenderer is not entitled for any enhancement of the rates once accepted. It shall be lawful for the purchaser to set off any loss or expense or cost of damages sustained or incurred by the purchaser by reason of the cancellation of the tender form and out of nominees for the time being payable or due to the tenderer from the University otherwise apart from forfeiting the security deposit furnished by their tenderer.

All sums found due to the University under or by virtue of these presents shall be recoverable from the tenderer in any manner as the University may deem it.

XV. Any notice or communication to the tenderer shall be deemed to be sufficiently served if given or left in writing at his usual or last known place of abode.

XVI. All questions, disputes or differences arising under out of or in connection with the supply, if not concluded shall be subject to the exclusive jurisdiction of the place from which the acceptance of the tender is issued, is situated.

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