



DEPARTMENT OF BIOTECHNOLOGY
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Dr. D. KARUNAGARAN

Professor and Head

Date: 06.01.2016

Ref: BT/GSAT/2015/029/SPL

Dt. 06.01.16

Due Dt.21.01.16

1. Quotations are invited in duplicate for the various items shown below/overleaf/ enclosed list.
2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.
6. **Local Firms:** Quotations should be for free delivery to this Institute. If quotations are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms outside Chennai:** Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.
8. The rates of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have concessional sales tax applicable to non-government educational institutions run with no profit motive for which a Concession. Sales tax certificates will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

**TECHNICAL SPECIFICATIONS FOR HIGH PERFORMANCE LIQUID
CHROMATOGRAPHY (HPLC) SYSTEMS**

Quotation for HPLC system with PDA detector and RI detector is required strictly with the following specifications.

Pre-requisites:

1. Only authorized distributors are allowed to participate.
2. The tenderer should have a minimum of 3 years of experience for supply and successful installation of goods of similar specifications.
3. At least two latest satisfactory installation reports must be enclosed with the technical bid. Please provide contact details of at least two successful buyers.

Instrument specifications:

S. No	Components	Specifications
1	Solvent delivery system Pump Flow rate Flow rate accuracy Safety functions Operating pressure	Quaternary pump 0.0001 to 10 ml/min +/- 1% or +/- 0.5uL of set value whichever is larger high pressure limit, leak sensor 400 bar or higher
2	Sample injector Sample loop Hamilton syringe	20 µl 25-50 µl
3	Photodiode detector (PDA) Wavelength range Wave length accuracy Noise level Number of different wavelengths to be monitored & quantitated simultaneously	190-800 nm +/- 1 nm Less than +/- 0.6x 10 ⁻⁵ AU >3
4	Refractive index detector (RID) Refractive index range Sensitivity	1 to 1.75 RIU High
5	Column oven Temperature range Space	From same manufacturer and software control °C to 85 °C >/= 2
6	Mixer for gradient flow	
7	Solvent tray	
8	Software	<ul style="list-style-type: none"> ✓ Should be user-friendly ✓ Should be compatible with latest operating system ✓ The software should provide all the functionality that a laboratory staff needs to efficiently work with chromatography data

		<ul style="list-style-type: none"> ✓ The software should have robust peak integration capabilities, with effective detection of low level peaks on noisy or sloping baselines ✓ Should have custom field calculation option & should be able to control UV / PDA for MS detectors in future without any up gradation
9	Solvent degassing unit	On-line Membrane degassing unit with 5 flow lines with maximum operating flow rate up to 20 ml/min per flow line
10	C18 analytical column	250x4.6 mm (5µm)
11	PC	Dell/HP

Warranty: The warranty of the equipment should be at least for a period of 36 months from the date of installation.

Training: Free training should be given to the identified faculty/students at the Biotechnology department in IIT Madras whenever required

General:

1. Supply, install, training and successful conduct of final acceptance tests at IITM should be done by the supplier
2. Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser
3. Please mention individual price of all items
4. Technical compliance sheet should be attached along with the quotes. Quotations without technical compliance sheet will be rejected.

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