

DEPARTMENT OF BIOTECHNOLOGY Indian Institute of Technology, Madras, Chennai, 600 036,

Telephone No.22574107, 22574101, FAX No.22574102

MUKESH DOBLE Professor and Head

Professor and Head Date: 25.03.2014

Ref: BT/SMAH/2013/112/SPL Dt. 25.03.14 Due Dt.07.04.14

- 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.

SPECIFICATION

- For complete lab autonomy and best adaptation to laboratory water needs, the water purification system should deliver pure & ultrapure water directly from tap water.
- The system should be comprised of a single water purification unit containing reverse osmosis, electro-deionisation, ion-exchange and activated carbon technologies and polishing device.
- To reduce the consumable replacement, the water system should include an EDI (ElectroDelonisation) module that does not require softening pre-treatment.
- To facilitate installation in the laboratory and minimize the occupied bench space, the water purification and water delivery functions of the water purification system should be separated
- The ultrapure water system delivery unit should dispense ultrapure water in two modes easily accessible: variable flow and volumetric dispensing
- The ultrapure water system delivery unit should be designed so that regular lab containers, such as cylinders and flasks, can be filled without the need to hold them. The system should also incorporate a volumetric dispensing function capable of automatically dispensing of ultra pure water from 0.1 L up to 60 L.
- To avoid maintenance errors and to improve traceability, the internal primary consumable water purification cartridges should have a built-in RFID tag
- The ultrapure water system delivery unit should be adapted to easy ultrapure water dispense in all containers regularly used in the laboratory
- The ultrapure water system delivery unit should incorporate a fully comprehensive, graphic color LCD display to provide information 1) on system status and performance parameters, 2) on routine maintenance needs, and 3) on alarms for troubleshooting in the event of system malfunction. Graphic icons and operating control values must also be available as standard.
- The ultrapure water system built-in resistivity and TOC monitors with a range of 1-999 ppb and should be calibrated according to international norms and standards.
- To comply with USP requirements, the resistivity meter should be able to display the non-temperature-compensated resistivity.
- To prevent deterioration of water quality during periods of non-use, the ultrapure water system should be able to recirculate water to maintain high water quality.
- There should be constant communication between the ultrapure water system and the feed tank to ensure that there is always a constant supply of water to the polishing portion of the system.

Ref: BT/SMAH/2013/112/SPL Dt. 25.03.14 Due Dt.07.04.14