# **INVITATION FOR BID**

To,

# Sub: Invitation for Bids for supply of "ION SELECTIVE METER AND ELECTRODES WITH DATA ACQUISITION SYSTEM"

Dear Sir/Madam,

You are invited to submit your most competitive bid for the items with detailed specifications as mentioned below:

## 1. Specifications for Ion Selective Meter and Electrodes

Equipment for the measurement of pH and ionic concentration with the following specification is required:

➤ Measuring Ranges and Resolution:

pH measurement: pH 0 to 14 or better, Resolution: 0.001

Temperature: -5 to 105°C or better, Resolution: 0.1°C

Potential: ± 1200.0 mv or better, Resolution: 0.1 mV

- Automatic temperature compensation for pH measurement
- Automatic recognition of buffer sets (for e.g. Merck, DIN/NIST etc.)
- > Multipoint calibration using standard buffers
- > Calibration of ion meter with standard solutions
- ➤ Graphical, LCD display of results
- ➤ Data Storage of Results: minimum 100 data points
- > Interface with PC and Printer
- ➤ Facility to plot calibration curves and to plot functionspH/Potential/Temperature/Concentration versus time
- ➤ Electrodes for measurement of F-, Pb<sup>2+</sup> ions concentrations in solutions; measuring range:

For  $F^-$ :  $1x10^{-6}$  M to 1 M or better

For  $Pb^{2+}$ :  $1x10^{-6}$  M to 0.1 M or better

- > Reference Electrode
- > Electrode holder and stand
- Any other part that is necessary for complete installation and functioning of ion meter for above mentioned measurements.

<sup>\*</sup> Note: The cost of F- electrode, Pb2+ electrode and Ion meter should be quoted separately.

# 2. Specifications for Data Acquisition System

#### (i) Intel core i7 Configuration:

- > CPU: Intel Core i7-3770, 3.4 GHz, 8 MB Cache or better.
- ➤ Chipset: Intel Q77 Express or higher.
- Memory: 4 GB 1333 MHz DDR3 RAM with 32 GB Expandability.
- ➤ Hard Disk Drive: 500 GB 7200 rpm or higher.
- Monitor: 22.0 inch LED/ TFT Digital Color Monitor TCO- 05 certified.
- ➤ Keyboard: 104 keys.
- Mouse: Optical with USB interface.
- Bays: 2 Nos. or above
- Ports: 6 USB Ports including 2 USP 3.0 Ports (with at least 2 in front), audio ports for microphone and headphone in front.
- ➤ Cabinet: Small form factor
- > DVD ROM Drive: 8X or better DVD ROM Drive.
- ➤ Networking facility: 10/100/1000 on board integrated Network Port with remote booting facility remote system installation, remote wake up
- > Operating System: Windows 8 Professional preloaded, with Media
- > OS Certifications: Windows 8 OS and Linux certification.

#### (ii) Laser Multifunction Printer:

- Print/Scan/Copy/Auto Duplex Printing
- Print speed (A4): minimum 20 ppm for simplex and 15 for duplex
- ➤ 600 x 600 dpi or better

### **TERMS AND CONDITIONS:**

1. Kindly send the bid into two parts indicating Technical Bid and Financial Bid. The Technical and Financial bid should be sealed by the bidder in separate envelopes duly super-scribed and both these sealed envelopes are to be put in a bigger cover (envelope) which should also be sealed and duly super-scribed. The bid should be addressed to/in favour of Prof. Seema Kapoor, PI, UGC Major Research Project, Dr. SSBUICET, Panjab University, Chandigarh-160014 and should reach in the office of this

- **institute by 14<sup>th</sup> June, 2016 till 4.00 p.m.** Kindly mention on the outer cover "Bid for Ion Selective meter and electrodes with data acquisition system" under UGC project of Prof. Seema Kapoor, PI, UGC Major Research Project.
- 2. The bids should be submitted along with an Earnest Money Deposit (EMD) of Rs. 12000/- in the form of an A/c payee Demand. The EMD should be in favour of The Registrar, Panjab University, Chandigarh, payable at Chandigarh. The EMD should be in a separate envelope duly super-scribed and should be put in the bigger cover (envelope). If EMD is not found in the bigger cover (envelope), the bidder will be disqualified completely and the technical bid will also not be opened.
- 3. The EMD would be returned to the bidder within 30 days of opening of the technical bid, in case it doesn't qualify technically.
- 4. The bidder who qualifies technically, only his financial bid will be opened.
- 5. The bidder who qualifies technically, the Earnest Money Deposit (EMD) by the bidder would be returned after 3 months of satisfactory installation and working of the equipment/instrument so supplied by the concerned bidder.
- 6. The bidder should quote all the prices (rates) in Indian Rupees (INR) only.
- 7. The items, if so ordered should be delivered F.O.R. this institute.
- 8. The relevant catalogue and/or leaflet, if any, should be sent along with the Technical Bid. The make/type detail specifications, salient features, etc. should be clearly mentioned.
- 9. The Government levies, viz- Sales tax/VAT, Excise Duty, etc., if any, so chargeable should be clearly mentioned in the bid.
- 10. All commercial terms and conditions viz- validity, delivery period, freight charges(if any), warranty, etc. should be clearly mentioned in the financial bid.
- 11. The bidder is required to quote for each item separately in terms of basic price and all other charges.
- 12. The payment would be made by the University from UGC Project as per its norms and procedures.
- 13. The discount, if any, for academic institutions should also be mentioned.
- 14. Incomplete bids shall not be accepted and would be rejected.

Prof. Seema Kapoor PI, UGC Major Research Project Dr. SSBUICET Panjab University, Chandigarh