ICAR-INDIAN INSTITUTE OF MAIZE RESEARCH PAU Campus, Ludhiana - 141004

42-01/EFC-Equipments/P/IIMR/17-18/9328-29

Date: 16.02.2018

Corrigendum

Sub.: Corrigendum regarding quotation for supply and installation of scientific equipment, i.e Atomic Absorption Spectrophotometer to be opened on 06.03.2018 at 11:00 A.M. onwards

Kindly refer to tender no. 42-01/EFC/Equipments/P/IIMR/17-18/ dt. 28.11.17 (Tender ID 2018-DARE_304814_1) due for opening on 06.03.2018 at 11:00 A.M. In this regard, it is intimated that some changes have been incorporated in the specifications for Atomic Absorption Spectrophotometer. The revised specifications are being enclosed herewith. Kindly note that tender received with the technical specifications may only be considered for further course of action.

Administrative Officer

Copy to:-

- In-charge ARIS cell, IIMR for uploading on IIMR website
- Notice Board

REVISED TECHNICAL Specifications of ATOMIC ABSORPTION SPECTROPHOTOMETER

Fully automated, True double beam PC controlled Atomic Absorption Spectrophotometer system with absorption and emission capability with deuterium background correction with following specifications and accessories:

Monochromator: Littrow or Czerny Turner or equivalent design with motorized drive for automatic wavelength selection and peaking.

Wavelength range: 185-900 nm

Diffraction grating: 1800 lines/mm blazed at >225 nm and >375 nm

Sensitivity: 0.9 Absorbance for 5 mg/L Cu

Focal length: >267 mm

Spectral Bandwidths: User selectable automatic variable slit widths from 0.2 to >1.0 nm

Sample Introduction System: System should have Modular sample introduction system consisting of a quick-change spray chamber, burner head and nebulizer.

High-Sensitivity corrosion-resistant Nebulizer with **Platinum/Iridium Capillary** should be there with system.

The introduction system must be equipped with a high-strength inert mixing chamber, angled to ensure proper drainage.

The system should have separated 100mm Air- Acetylene and 50-mm acetylene-nitrous oxide **Titanium Burner Head**.

The Burner head adjustment in vertical and horizontal direction should be software controlled and position of the burner head should also get stored with define and particular method.

The flame shield should be polymer-coated for resistance to corrosion from acidic fumes from the environment or from the samples

The sampling compartment should be extremely spacious to allow easy access to change burner heads or nebulizers.

Lamp Turret: 8-lamp mount with built-in power supplies cable less hollow cathode lamps.

The systems must be quoted with flame auto-sampler having capacity of at least 50 samples or more.

Deuterium Background Correction: Built-in continuum source double-beam background correction using a high-intensity deuterium arc lamp.

Detector: Advanced Wide-range segmented solid-state detector, including a built-in low-noise complementary metal oxide semiconductor charge amplifier array or photo-multiplier tube detector.

Corrosion Resistance: All the Printed Circuit Board Assemblies should have conformal coating for complete resistance to corrosion and to act as protection against moisture, dust, chemicals, and temperature extremes.

Lamps: The hollow cathode lamp/electrodless discharge lamp/super lamp/ ultra AA lamp to be supplied with the system for estimation of Si, Al, K, Fe, Zn, Cu and Mn.

Gas Controls: Fully computer-controlled with oxidant and fuel monitoring. Touch screen or keyboard-activated remote ignition system with air/acetylene. Acetylene flow should automatically be adjusted prior to the oxidant change when switching to or from nitrous oxide/acetylene operation.

Safety Functions: Safety Interlocks should prevent ignition if the proper burner head, the nebulizer/end cap, or the burner drain system is not correctly installed; the liquid level in the drain vessel is incorrect; or gas pressures are too low. Interlocks should also be automatically shut down burner gases if a flame is not detected, or if any of the other interlock functions are activated. Provision should be included for safe shutdown from all operating modes in the event of a power failure.

Certification: The instrument should be developed and produced in compliance with ISO certification standards.

System Power Requirements: 100-230V (±10%), 50/60 Hz (±1%), single phase alternating current, 800 VA (maximum).

Two Nitrous Oxide cylinder (>47 L), dual stage regulator with heater

Warranty: Warranty should be quoted for at least two year.

The system must have capacity to upgrade for installation of integrated graphite furnace.

Important Note:-

- 1. We have accessories like 5 KVA UPS, air compressor, fume hood assembly, Computer, printer and acetylene gas cylinder with regulator that should not be quoted.
- 2. Please provide compliance statement sheet with technical bid and if there is any deviation in above-mentioned specifications should be clearly highlighted in remarks.
- 3. User list should be attached along with literature.
- 4. Anything extra required for installation should be quoted along with instrument.
- 5. Original brochure should be attached (no web)