



Notice Inviting e-Tender

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**Procurement, supply and installation of Hi Tech Analytical Instruments for State Drugs
Control & Research Laboratory (SDCRL) of the Government of West Bengal**
(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-101 /2025

Dated-06.02.2025

The following amendment have been made in the tender document,

Amendment –I (Revision of Technical Specification)

The revised technical specifications for the item is given below,

Double Beam Atomic Absorption spectrophotometer

The system should have minimum following specification:

- Optics-True double beam optics with aberration corrected Czerny-Turner monochromator mounting. Electronically double beam or Single beam or stockdale optics will not be accepted.
- High resolution grating with 1800 lines/mm and 300 mm or more focal length for high energy throughput
- Wavelength Range- Complete measuring wavelength range from 185nm to 900nm
- Bandwidth selection: 6-step or more bandwidth selection with automatic switching from 0.1 to 2nm (0.1, 0.2, 0.4, 0.7, 1.0, 2.0 nm)
- Detector- High sensitivity Photo-Multiplier Tube (PMT) detector for complete wavelength range or Solid state Detector
- Motorized turret: 8 lamps or more turret, controlled through software with 2 lamps simultaneously lit, one for measurement and other for warm up for the next measurement
- In built power supply for minimum 2 numbers of High-performance boosted lamp/ Super lamp/EDL must be there in the system

- Dual background correction as standard - High speed dual frequency simultaneous measurement D2 background correction and high-speed Self Reversal **or better** background correction.
- System must be supplied with 100mm Air-C₂H₂ solid Titanium burner and 50mm N₂O- C₂H₂ burner as standard for automatic ignition and extinction of flame
- High efficiency nebulizer with chamber made of engineering plastic, Platinum-Iridium orifice and Ceramic impact bead resistant to strong acids including HF Fully computerized gas flow control system with automatic setting of optimum fuel and oxidant flow rates
- System must provide Performance Guarantee: Greater than **0.9** abs for 5mg/L copper solution with an RSD of less than 0.5%.
- All the safety functions must be provided as standard including Leak Check; Flame Monitor; Gas Pressure Monitor; Inter lock for wrong burner head use; Auto switch-over between Air-C₂H₂ / N₂O-C₂H₂ flame with flow rate monitoring using optical sensor; Drain Tank Level Monitor, Automatic flame extinction during power sudden power interruption, Vibration sensor for auto flame extinction; Internal fan stop sensor and flame retardant body.
- **Automatic Gas flow Control:**
The system must have automatic searching for optimal fuel gas flow rate which optimizes the gas flow rate by measuring the changes in absorbance between a blank and a standard sample. The difference between the two must be displayed on the screen. The gas flow rate achieving the highest sensitivity must be detected and this value must automatically set as the gas flow rate value.
- Software operation on Windows 10 Professional for complete instrument control, data acquisition and processing Software includes strengthened QA / QC functions; Hardware Validation functions and Comprehensive data management system as standard
- Single Hollow Cathode Lamps for elements for **Na, K, Pb, Cd, Ca, Fe, Al, Zn, Mg and Cu** must be supplied along with the system
- All Pre installation requisites (PIR) are to be supplied by the vendor. Utilities required for AAS operation like Branded i5 PC with original Windows 10 Professional, Exhaust hood assembly, Double stage SS Acetylene Regulator, one time filled Acetylene Gas Cylinder, Double stage SS Nitrous Oxide Regulator, one time filled Nitrous Oxide Gas Cylinder, Oil free air compressor, Gas control box for Acetylene, Nitrous Oxide and Air, 5 KV A Online UPS with 30 minutes back up and standards for all the above elements.
- There must be future up gradation provision with single Auto sampler for Flame, Furnace, and Hydride Vapour Generator with auto sampler having auto dilution facility for furnace operation.
- Instrument must have provision for Graphite furnace field up gradation later stage. The name to furnace change over must be automatic (computer controlled). No manual intervention is required.
- Instrument should be **European CE (4 Digit notified body) /BIS/CDSCO Certification from the competent authority** & IQ, PQ & OQ qualified.
- Warranty must be 3 years from the date of installation.
- Installation & training should be provided at our lab free of cost.