



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-279 /2025

Dated-08.04.2025

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,

GCMSMS (QQQ)

Sr. No	Item	Description
1	Gas Chromatograph	<p>A Gas Chromatograph Triple quadrupole mass spectrometer should be able to cover the following applications: Nitrosamines, Residual Solvent testing, Extractable & Leachables, Nutraceuticals, Abuse studies, Volatiles testing, and other pharma applications.</p> <p>Column Oven can accommodate two columns with a maximum temperature range of up to 450°C with a set point resolution of 0.1°C. It should support 20 Oven ramps & maximum temperature ramp rates of 120° C/min.</p> <ul style="list-style-type: none">- Cool down of Oven from 400° to 50° in less than 4 minutes.- There should be a touch screen display on GC Instrument.- It should have a retention time locking facility as well as a browser interface facility for remote access.- It should have a touch screen interface built into the system with USB access.- Intelligent features like EMF, etc. should be built into the system.

		<ul style="list-style-type: none"> - Retention time locking feature without using any external calibrants must be available. If any external calibrants are needed, the vendor must provide at least 100 vials of the standard.
2	Inlet: 2 Nos	<p>Inlet 1: PTV or Equivalent Inlet</p> <ul style="list-style-type: none"> • An Inlet providing the flexibility of a standard split/Split less inlet, along with a programmable temperature vaporizer (PTV) capability/Equivalent, enabling large-volume injections should be provided. It should be equipped with EPC with a pressure range of 0.1 to 100 psi. • The same inlet should also support cool injections for an improved signal response. • Temperature programming of up to 5 ramps or more at up to 800°C/min or higher with fully EPC/equivalent. • Split ratio of 12000:1 or more. • Following injection modes should be made available: <ul style="list-style-type: none"> a. Hot or cold split/Splitless b. Pulsed split/Splitless c. Solvent vent d. Direct (any other extra injection modes apart from this) <p>Inlet 2: Split Splitless Inlet</p> <ul style="list-style-type: none"> • An Inlet providing ability of a standard split/Splitless inlet. It should be equipped with EPC with a pressure range of 0.1 to 100 psi. • Maximum temperature of 400 deg. • It should have a Gas saver mode or equivalent to reduce gas consumption without compromising performance. • Split ratio of 12000:1 or more.
3	Detector (FID): 1 Nos	<ul style="list-style-type: none"> • Operating Temperature range 50°C to 400°C or better • Minimum detection limit of 1.2 pg C/sec or better. • Data Acquisition rate of 1000 Hz or better. • Linear dynamic range: $> 10^7 \pm 5\%$
4	Auto Sampler/ Auto-Injector: 1 Nos	<ul style="list-style-type: none"> • Auto Sampler with 15 or more vials • Future Upgradability should be possible to 150 vial samplers or more to increase the throughput of the system should be possible • Area Reproducibility better than 0.5% RSD • Syringe up to 10 µL as standard or better • Vial size: 2 mL
5	Headspace Sampler: 1 No.	<ul style="list-style-type: none"> • Typical area repeatability $< 1\%$ RSD • Temperature for Oven: Ambient + 5°C to 300°C • Temperature for Valve and loop: Ambient + 5°C to 300°C • Temperature for Transfer line: Ambient + 5°C to 300°C • The system should have a 48-vial capacity with Racks that are exchangeable during a sequence for continuous operation • Robust valve and loop headspace sampling system with standard full electronic pneumatics along with a chemically inert sample flow path
6	Mass Spectrometer	<ul style="list-style-type: none"> • EI source with up to 350-degree C or better. • Electron energy up to 200 eV or higher • The mass resolution of Unit Mass • A dynamic Range of 6 orders or higher.

		<ul style="list-style-type: none"> • A linear Hexapolar collision cell using Nitrogen or equivalent collision gas.
7	Quadrupole	<ul style="list-style-type: none"> • A heated monolithic hyperbolic quadrupole with a temp of up to 200 Deg C must be provided. • If a heated quadrupole is not present, the vendor must supply an extra Quadrupole
8	Mass Range	From 10 to 1000 amu or better
9	Scan Rate	A scan rate of 20000 amu/sec or better
10	Sensitivity	El scan sensitivity 30,000:1 or higher, by 1 microliter injection of 100fg/ul OFN standard scanning from 50 to 300 amu at nominal 272 -> 222 (performed on 30m column)
11	IDL:	0.5 fg or better with injections of OFN with both quads set to unit resolution mode (Octafluoronaphthalene) (performed on 30m column)
12	Additional GCMS feature	<ul style="list-style-type: none"> • It should Monitor GC and MS resources: injection counter, operation times, and electronic logs to aid planned maintenance • It should have convenient access to pertinent consumables part numbers • It should have the facility for rapid venting of the MS • It should have an Eco-Friendly Operation with User-scheduled sleep/wake mode to save carrier gas and power • It should have integrated Calculators like a Vapor volume calculator, solvent vent calculator, method translator, etc.
13	Scan Modes	Full scan, SIM, MRM, dynamic MRM, targeted MRM, and any other scan modes
14	Computer & Software	The complete system should be supplied with a computer and a printer with original software with a license to control GCMSMS and other accessories. Should be operated from the main chromatography data handling software and integrated with it. Factory supplied suitable & compatible branded PC for running offered software or Portable Data Handling & Storage
15	MS Detector	A triple-axis detector with high energy dynode technology for the long life of electron multiplier (EM), For any other technology a separate EM horn is to be supplied to ensure the long life of the system.
16	Probe	<ul style="list-style-type: none"> • A Probe that should provide fast analysis of solid, liquid, and slurry samples. The process should be simple, clean, and require limited or no sample preparation. • It should help when testing complex samples in food, pharma, forensics, environmental applications, etc. • Any other similar probes are also acceptable.
17	Optional consumables	Below are items that must be supplied with the system as optional: <ol style="list-style-type: none"> 1. HP-5MS (Column 30 m length) 2. Auto sampler vials with caps: 1000 Nos 3. Headspace Vial with Caps: 200 Nos 4. Crimper 5. Decapper 6. Septa: 20 Nos 7. Ferrules: 10 Nos 8. Liner: 2 Nos

		9. Syringe 10 ul: 2 No 10. Filament: 1 No 11. Helium Trap: 1 No 12. Vacuum Pump Fluid: 1 L 13. O-ring: 20 (if not already included in Liner) 14. Column nut and MS interface nut: 04 each
18	Library	The latest edition of NIST is to be supplied with the system.
19	Gas Lines and Cylinders	The vendor should arrange for all gas lines, regulators, purification panels, cylinders (N2, H2, Zero Air & Helium each qty-l), etc.
20	UPS	Necessary Online UPS (at least 10KVA) with 60-minute backup
21	IQ/OQ	IQ& OQ should be quoted by the vendor.
22	Certificate	Equipment should be European CE (4 Digit notified body) / BIS / CDSCO Certification from the competent authority
23	Warranty	A 3 Years warranty covering the GCMSMS, PC-Printer & UPS with battery