

06.02.2019

TAMILNADU MEDICAL SERVICES CORPORATION LTD

**TENDER FOR SUPPLY AND INSTALLATION OF GAS CHROMATOGRAPHY AND
MASS SPECTROPHOTOMETER AND HYBRIDIZATION SYSTEM TO MULTI
DISCIPLINARY UNIT AT GOVT. MEDICAL COLLEGE, TIRUNELVELI AND
THANJAVUR**

TENDER NO.425/CGY/DME/TNMSC/ENGG/2019, dt: 07.01.2019

Corrigendum

a) The following corrigendum are issued:-

Sl. No.	Tender Document Reference	Instead of	Read as
1.	Page No.52 Section V: Schedule of Requirements	Delivery Schedule: 30 days from the date of purchase order.	Delivery Schedule: 60 days from the date of purchase order.
2.	Page No.54 Section VI: Technical Specification Specification for Gas Chromatography and Mass Spectrophotometer	Existing Text	Revised Text at Annexure - I
3.	Page No.57 Section VI A: Qualification Criteria 3. Common to Both Manufacturer and Bidder	a) The bidder should have a manufacturing capacity of at least 18 Nos. for Sl. No.1 and 36 Nos. for Sl. No.2 similar capacity machines per annum certified by licensing authority/ chartered accountant.	a) The bidder should have a manufacturing capacity of at least 9 Nos. for Sl. No.1 and 18 Nos. for Sl. No.2 similar capacity machines per annum certified by licensing authority/ chartered accountant.

All other terms and conditions of the tender remain unaltered.

The above forms part of the bidding documents. The bidder shall attach the copy of this corrigendum duly signed by their authorized signatory, in their bid.

**Sd/-
General Manager (E)**

**SPECIFICATIONS OF GAS CHROMATOGRAPHY AND MASS SPECTROMETER -
REVISED**

Gas chromatography

Fully automated GC with EPC/PPC for all pneumatic parameters and self-diagnostic facility

Oven

- Temperature range: near-ambient (with zones at 250°C) to 450 °C
- Temperature programmed ramps: 10 program steps and 9 program ramps or better
- Settable heating rate: from 0 °C/min to 120 °C/min in 0.1 °C increments
- Cooling rate: 250 °C - 50 °C in less than 5 minutes
- Settable column overheat protection

Injectors

- Programmable split/split less injector should be available to avoid sample degradation/decomposition
- Temperature-programmable inlet
- Large-volume injection of up to 150µL manually
- Six ramps temperature program
- Adjustable split ratio easily for a wide range of analysis conditions
- Trap in split vent to prevent contamination of split valve and lap air 50 °C to 500 °C in 1 °C increments
- Heating rate of 1 °C/min to 800 °C/min or better

Data Handling

1. Should be latest windows software and all necessary software with all upgrades on date of installation
2. Should provide full control of the system
3. User should have facility to login with a valid password and select analysis so that software can take over
4. All method functions should have access through icons
5. Should have real time display of all chromatograms

6. Should have report generator facility using Microsoft word (current versions) and custom report generation in PDF.
7. Software should have graphic method editor to optimize integration parameters and to add component names to known peaks in a method
8. Should have calibration options (bracketing with overlap, bracketing without overlap and bracketing by grand average)

Mass spectrometer

1. Analyzer: quadrupole with prefilter, high ion transmission efficiency
2. Mass range: 1.0-1050 amu or better and mass axis stability ± 0.1 amu/48h or better
3. Detector: high-sensitivity electron multiplier
4. Ionization mode: electron ionization (EI) upgradable to chemical ionization (CI)
5. EI voltage: 10-220eV (user selectable)
6. GC transfer line: settable from 20 °C to 350 °C
7. Ion source: temperature settable up to 350 °C
8. Scan rate: 12,000 amu/sec or better
9. Acquisition rate: up to 100 scans/second, selected ion monitoring (SIM) or better
10. Linear dynamic range: 10^6 - 10^7 depending on acquisition rate
11. Pump: 255L/sec (nitrogen) air-cooled turbo molecular pump (single pump)
12. Vacuum gauge: standard, single wide-range gauge for all pumping options
13. EI scan sensitivity: full scan 1 pg of octa fluoronaphthalene 500:1 RMS or better
14. Suitable capillary columns to be offered for GCMS operations with general purpose columns, special columns for VOC's TAG's, methanol, glycerol etc
15. Windows based software
16. Choice of mass spectral libraries – NIST (latest licensed version)
17. Essential spares for trouble free maintenance
18. PC workstation : to be offered directly from the manufacturer of the GC MS system, with LCD monitor, and factory tested and calibrated software

Other Accessories

- Suitable color LaserJet printer (A4 size), helium filled gas cylinder (UHP grade; 2 Nos.) and regulator, 6 KVA online UPS with 30 minutes back-up, suitable gas purification system