



# NATIONAL DOPE TESTING LABORATORY

WADA Accredited Lab

ISO/IEC 17025:2005 & 17043:2010 - NABL Accredited Lab



Cer.No. T-0607, T-1747 & P-0008

Ref. No. 28(iii)/Admn/NDTL/2016-17

Date: 22/09/2016

## CORRIGENDUM

Reference to Tender ID. 2016\_NDTL\_121694\_1 (Ref. No. 28(iii)/Admn/NDTL/2016-17) for procurement of Gas Chromatography Triple Quadrupole Mass Spectrometer (GC-MS/MS) system and in continuation to the pre-bid meeting held on 19.09.2016:

1. The Technical Committee has revised the Technical Specification of GC-MS/MS & is being published as corrigendum. All the bidders are requested to go through the revised Technical Specification before submitting the said tender.
2. **The last date of submission & opening has been rescheduled to 04.10.2016.**
3. The prospective bidders are also requested to read the header of the tender from page no. 38 to 46 as "GC-MS/MS" only instead of "GC-MS/MS & 01 No. of LC-MS/MS system" and the same will apply at page 36 for CAMC & page 45 under part III(b) as this is typographical error.

*Alka Beotra*  
22/9/16

Dr. Alka Beotra  
Scientific Director, NDTL

**REVISED TECHNICAL SPECIFICATIONS FOR GC-MS/MS**

<b>S. NO</b>	<b>DETAILS</b>	<b>SPECIFICATIONS</b>
1.	Operation mode	Electron Impact Ionization
2.	Mass Range	10-1050 amu or better
3.	Mass Resolution	User selectable 0.7 – 2.5 amu in SRM mode
4.	Minimum Dwell time	0.5 msec
5.	Scan Speed	6000 amu/ sec or better
6.	Maximum Ion Source Temperature	350 <sup>0</sup> C
7.	Electron energy	10-140 eV or better
8.	Mass stability	< ± 0.1 amu in 24 hours or better
9.	Manifold/Quadrupole Temperature	Manifold/Quadrupole heating/non heating technique to eliminate contaminants
10.	Detector	<ul style="list-style-type: none"> <li>• Electron Multiplier &amp; Electrometer</li> <li>• Should be off axis/on axis to remove neutral interference</li> </ul>
11.	MRM/SRM speed	700 SRM/MRM transitions/s or better
12.	Tandem mass spectrometry scan options (MS operating modes)	The mass spectrometry should have scan options for: <ol style="list-style-type: none"> <li>a. Full scan</li> <li>b. Selected ion monitoring/recording (SIM/SIR)</li> <li>c. Product ion scanning</li> <li>d. Precursor ion scanning</li> <li>e. Neutral loss/gain</li> <li>f. MRM/SRM</li> </ol>
13.	Sensitivity	<b>MRM</b> injection volume 1 µl of 100 fg OFN for 272>222- S/N 10,000:1 or better <b>Full Scan</b> 1 µL of 1 pg/µL OFN will produce the following minimum signal-to-noise for m/z 272 when scanning from 50–300 u;1,000:1
14.	Instrument Detection Limit	0.5 fg or less, while injected 1µl of 10fg/µl OFN injection (column length 30m) monitored for SRM 272→222, calculated from the chromatographic peak area with 99% confidence interval.
15.	Vacuum System	Dual stage Turbomolecular pump.
16.	Collision energy	Upto 60 eV
17.	Column replacement	Should have provision to changing the column without venting of MS vacuum
18.	Column oven	Column oven should be large enough to accommodate two capillary columns

19.	Operating column oven temperature	Operating temperature should be 4°C above ambient to 450 °C
20.	Option of integrated back flush for split/splitless injection	Required
21.	Maximum Temperature ramp	Maximum Temperature ramp-120°C/min
22.	Transfer line temperature	Upto 350°C
23.	Cool down rate of column oven	Cool down rate of column oven: 400 °C to 50 °C should be 4.0 min. or better
24.	Electronic Pneumatic Control (EPC)	Should have Electronic Pneumatic Control (EPC)/PPC/Electronic Flow control (EFC) for inlets, detectors or auxiliary gases
25.	Injector/inlets	Should have Split/Splitless injector/inlets
26.	Autosampler/injector & capacity tray	Autosampler/injector should have minimum 100 vials capacity tray
27.	Computer/Software/Printer/UPS	<p>a) Windows based branded computer platform with latest version, with all interface card and 20'' or better LCD monitor.</p> <p>b) Software package should include all necessary software for control, data acquisition, data processing, qualitative and quantitative analysis for complete equipment with its peripherals.</p> <p>c) NIST latest version Library.</p> <p>d) Quoted laser printer should be capable of high capacity data output.</p> <p>e) IQ/OQ should be performed at the time of installation.</p> <p>f) 10 KVA UPS with 1 hr battery backup should be quoted.</p>
28.	International user	Quoted system or its immediate preceding model must be in use in WADA accredited laboratory and list containing contact details of the used and institutions should be provided.
29.	CAMC	5 Years after warranty period should be quoted.
30.	Supply of consumables and spare parts (Undertaking)	The bidder must provide an undertaking for assuring supply of necessary consumables and spare parts for 10 years after installation.