

**BID REFERENCE:** NITD/CHEMICAL/DST-FIST/2016-17/01/Cor

**Date:** 06.02.2017

**Corrigendum for GC MS specification (Dept. Of Chemical Engineering, NIT Durgapur)**

**BID REFERENCE:** NITD/CHEMICAL/DST-FIST/2016-17/01

**Date:** 18.01.2017

**The following changes are to be included in the BID Reference for GC MS system:**

<b><u>Item No.</u></b>	<b><u>Earlier</u></b>	<b><u>Modified</u></b>
15.	A bank draft or bank guarantee worth 2% payable to “FIST CHEMICAL” as EMD which shall remain valid for a period of 45 days beyond the final bid validity date. This should be provided in a separate envelope.	For Bank guarantee it is to be addressed to “ <b>NIT DURGAPUR</b> ” and the other conditions remains same.
16.	Quotations are to be submitted in three separate sealed covers marked PART-I (Techno-commercial bid) and PART-II (Price bid) and PART-III( Bank Draft or Bank guarantee against security deposit) containing relevant documents, superscripting “Bid No. NITD/CHEMICAL/DST-FIST/2016- 17/01”. These two sealed covers are to be placed in a separately sealed larger cover. It should be superscribed ‘Not to be opened before 15.30 hours on 28.02.2017’ on these envelopes.	Quotations are to be submitted <b>in three separate sealed covers</b> marked PART-I (Techno-commercial bid) and <b>PART-II</b> (Price bid) and <b>PART-III</b> ( Bank Draft or Bank guarantee against security deposit) containing relevant documents, superscripting “ <b>Bid No. NITD/CHEMICAL/DST-FIST/2016-17/01</b> ”. These two sealed covers are to be placed in a separately sealed larger cover. It should be superscribed ‘ <b>Not to be opened before 15.30 hours on 28.02.2017</b> ’ on these envelopes.
18.	You are requested to submit your offer latest by 15.00 hours on 28.02.2017.	You are requested to submit your offer latest by 15.00 hours on <b>28.02.2017</b>
19	The purchaser will open the bids at 15.30 hours on 28.02.2017 in the HOD office of Chemical Engg. Department, NIT Durgapur.	The purchaser will open the bids at 15.30 hours on <b>28.02.2017</b> in the HOD office of Chemical Engg. Department, NIT Durgapur.

**The following changes are to be included in the specifications for GC MS system:**

<b><u>Item</u></b>	<b><u>Earlier</u></b>	<b><u>Modified</u></b>
Injector	Installable: at least two (Provision for upgradation)	Installable: at least two (must have provision for biodiesel analysis)
Split/splitless injector	split ratio: 0 to 9000 or better	split ratio: 0 to 7500 or better
Column	Oil and complex hydrocarbon analysis, Poly aromatic hydrocarbons, Diesel	Oil and complex hydrocarbon analysis, Poly aromatic hydrocarbons (8PAH,16 PAH and various), Diesel
Flame Ionization Detector	(i) Wide range Flame Ionization Detector for GC with auto ignition facility (ii) Minimum detection limit: 1.5 pg C/s or better (iii) Dynamic Range >10 <sup>7</sup> or better	(i) Wide range Flame Ionization Detector for GC with auto ignition facility (ii) Dynamic Range > 10 <sup>6</sup> or better

Thermal Conductivity Detector (TCD)	Temperature range: 400°C or better	Temperature range: 350°C or better
Head Space Sampler	15 vial capacity or more.	12 vial capacity or more.
Mass spectrometer with Detector	<ul style="list-style-type: none"> <li>• Mass range: : Lower Range 1.5 or better and higher range 1200 or better</li> <li>• Ion source type: Inert EI source with variable voltage and adjustable electron energy(0-200 ev)</li> <li>• Mass filter :Maintenance free good pre filter Quadrupole.</li> <li>• Quadrupole temperature::Dual Filament system. Temperature of the independently heated quadrupole should be controlled up to 350°C.</li> <li>• Scan rate (electronic): :20,000 amu/sec or better</li> <li>• Vacuum systems: : pump capacity with 170L/sec or better.Oil free pump.</li> <li>• EI Scan Sensitivity::1500:1 S/N or better (1pg of Octafluronaphthalene)</li> <li>• Emission current :upto 350 micro Ampere or better</li> </ul>	<ul style="list-style-type: none"> <li>• Mass range: : Lower Range 1.5 or better and higher range 1050 or better</li> <li>• Ion source type: Inert EI source with variable voltage and adjustable electron energy(10-100 ev or better)</li> <li>• Suitable pre filter/heated (up to 200°C or better) Quadrupole.</li> <li>• Scan rate (electronic): :12,500 amu/sec or better</li> <li>• Vacuum systems: : pump capacity with 170L/sec or better. Oil free pump.</li> <li>• EI Scan Sensitivity::800:1 S/N or better</li> <li>• Emission current :up to 315 micro Ampere or better</li> </ul>
Vacuum system for MS	Turbo molecular pump with capacity of 250 L/sec or better	Turbo molecular pump with capacity of 170 L/sec or better
Other accessories:	Standards and reagents for all sample analysis must be provided.	Point to be deleted and added in optional items
Computer and software to run the GCMS instrument	Branded computer with branded UPS(1.1KV) and laserjet printer (colour) installed software for running the GCMS	Branded computer and laserjet printer (colour) installed software for running the GCMS
Optional Items	<p><b>Electron Capture Detector</b>  I. Temperature Range: up to 350°C  II. Minimum Detected Quantity (Sensitivity): 6 fg/s (or better)  III. Dynamic Range: &gt;10<sup>4</sup> or better</p> <p><b>Auto Injector/Sampler</b>  12 vial capacity or more.</p>	<p><b>Electron Capture Detector</b>  I. Temperature Range: up to 350<sup>0</sup> C  III. Dynamic Range: &gt;10<sup>4</sup> or better</p> <p><b>Auto Injector/Sampler</b>  8 vial capacity or more.</p> <p><b>Standards and reagents for Biodiesel analysis must be provided. Demonstration and analysis of experimental samples (up to 500 no. Of samples) is required as per applications list mentioned in column part.</b></p>

