



## RAJASTHAN MEDICAL SERVICES CORPORATION LTD.

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No. F-8( ) RMSC/EPM/M-1/17-18/NIB-410/ 2018/ 361

Dated: 5-02-19

CLARIFICATION/CORRIGENDUM/ADDENDUM

**Subject: - Revised Bid Schedule and Amended Technical Specifications of Bid document of item HPLC-Mass spectrophotometer with accessories, under No. F-8( ) RMSC/EPM/M-1/18-19/NIB-410/99 date: 09.01.19**

In reference to subject cited above and NIB-410, the representations received from the various firms and issues raised by the Bidders, are examined by the competent Authorities and technical committee and approved by purchase committee. The following Clarification/Corrigendum/Addendum is issued for inclusion in Bid document Amended Technical Specification of items as below:-

	HPLC system consisting of Quaternary Gradient pump, Integrated Auto Injector, Online Degasser, Column Heater, PDA/DAD Detector along with software and Accessories.
1.	<p><b>QUATERNARY GRADIENT PUMP:</b>  Principle : Low Pressure Mixing - Serial Dual Piston  Automatic Gradient Profile Facility with 9 or more gradient curves.  Quaternary Pressure Gradient pump  Operating Flow Range: 0.001–10 mL/min  Flow Accuracy: <math>\pm 1.0\%</math>  Flow Precision: <math>&lt;0.1\%</math> RSD  Prop. Accuracy : <math>\pm 0.5\%</math>  Precision : <math>\leq 0.5\%</math> SD  Pressure Range : 350 bar(<math>\pm 20</math> bar)  Solvent Vacuum Degassing: Built-in , 4-channels  Error detection, Leak detection feature should be available.  Compressibility compensation should be automatic and continuous.</p>
2.	<p>Auto-sampler  Sample Capacity : 90 vails or more  Injection Volume : 0.1 <math>\mu</math>L –100 <math>\mu</math>L  Injection Volume Accuracy : <math>\pm 1\mu</math>l  Injection Volume Precision: <math>&lt;0</math> 1% of RSD  Injection Volume Linearity : <math>&gt; 0.999</math> RSD <math>&lt;0.5\%</math> at 5 – 90 <math>\mu</math>L  Sample Carry Over: Not more than 0.05% from previous injection  Temperature Accuracy Sampler : <math>\pm 2^\circ</math>C  Pressure Range : 350 bar(<math>\pm 20</math> bar)</p>
3.	<p>Column Heater:  Temperature Control Range : Ambient to <math>65^\circ</math> C  Temperature accuracy : <math>\pm 0.5^\circ</math> C  Colum heater should hold max 2 columns of 30 cm length.  Colum switching valve should be supplied along with the instrument for automated method development.  Forced air recirculation Peltier-based column heater/cooler module</p>
4.	<p>DETECTORS: Photo Diode Array/ Diode Array Detector  Wave length Range 190-800 nm  Diode Element minimum 512/1024 or more  Wave length Accuracy <math>\pm 1</math> nm  Wave length Precision/repeatability <math>\pm 0.1</math> nm  Noise Wide slit: <math>&lt; \pm 10</math> <math>\mu</math>AU at 254 nm  Response Time = 2 s  Slit width – 1 nm  Drift <math>&lt; 1</math> mAU/h at 254 and 520 nm with dry cell/water at 1.0 mL/min Temperature  Path length 10 mm (or suitable)  Cell Volume Approx. 8-10<math>\mu</math>L  Light source: Suitable for the system</p>



	<p>Lamp Hour: &gt;2000 hr lifetime Max. Data Collection Rate: 80 Hz or more including 3D data acquisition. Lamp optimization software for low noise performance.</p>
5.	<p>Single Quadrupole LCMS Detector Mass range (m/z) 30 – 1000 with unit mass resolution Detector : Photo multiplier with high energy conversion Dynode Ion source type: Heated Electrospray Ionization Source type: Atmospheric Pressure Ionization Electrospray Ionization flow rate : Min 1.0 mL/min or higher Supported modes: Full Scan, Single Ion Monitoring (SIM) &amp; simultaneous Full Scan/SIM Scan rate : Min 10,000 (Da/s) or higher Scan Speed : 10 Hz or higher SIM sensitivity (positive) : 10 pg Polarity switching : max 25 ms or better Mass accuracy <math>\leq \pm 0.2</math> Da Mass stability: better than 0.1 Da over 24 hours. Digital dynamic range: <math>\geq 10^4</math> Vacuum interlock should be present. Software : Single software should be able to control LC and MS together Noise free Nitrogen generator along with built in compressor should be supplied.</p>
6.	<p>Software : Same software should be able to control all modules of HPLC system. To control, acquisition, online display, processing peak point integration and reporting HPLC data, Full 32/64 Bit Architecture software Software must be 21 CFR part 11 compliant fulfilling all effective regulatory requirements. Windows 10/8 environment or suitable Data reports, online help and wizards Data Integrity, Advanced Security, Audit Trails System suitability min 5 Parameter can be checked Template/Wizards saving &amp; Auto run of templates along with simplified automatic common functions. Calibration curves facility Facility for data security, audit trails and electronic signatures etc., should be available for GLP and 21 CFR compliance along with suitable database.</p>
7.	<p>Columns (Pore Size 5 <math>\mu</math>) : (i) C-18 Column : 4 Nos. (Two of 250x4.6 mm &amp; Two of 150 x 4.6 mm). (ii) C-8 Columns : One of 250x4.6 mm Columns (Pore Size sub 2 <math>\mu</math>) : (major use) (i) C-18 Column : 4 Nos. (One of 100x2.1 mm &amp; One of 150 x 2.1 mm). (ii) C-8 Columns : One of 100x2.1 mm</p>
8.	<p>Accessories: 1.(A) Vials : 1 ml pack of 100 vials &amp; 2 ml pack of 100 vials (One Each) (B) Low insert vials (for low volumes) : A pack of 100 vials 2. Filtration Assembly consisting of (A) Sample Filtration Kit – One Nos. (B) Membranes [Type: Dual (Aqueous &amp; Organic solvents)] Size 13 mm diameter with Poresize 0.45 <math>\mu</math> – 10 Pkt of 100 membranes Size 47 mm of 0.45 <math>\mu</math> Poresize ; Qty- 10 pkt of 100 membranes (C) Pre-filters – 10 pkt of 100 circles (D) Solvent filtration kit – One No (E) Imported Oil Free Vacuum pump – One No. (F) Nylon Syringe filters (13 mm ; 0.45 <math>\mu</math>) – 2 Box of 100 filters. 3. MS Grade solvents of reputed brand (Merck/Fisher) (A) Methanol – 5 x 2.5 Lit. (B) Acetonitrile- 5 x 2.5 Lit (C) Water- 5 x 2.5 Lit.</p>



9.	Suitable PC & Printer with 10 KVA UPS of 60 minutes back up of reputed brands (PC-HP/Dell; Printer – Brother/Canon ; UPS- IPS/APS/GE) specification as under: Processor - Intel i7 Latest generation; RAM - 16 GB ; Hard disk - 2 TB ; Graphic Card; DVD writer; 21" TFT screen ; LAN Port ; USB 2.0 Ports (4 Nos.) ; Wi-Fi ; Multimedia Keyboard ; Optical Mouse
10.	Operating System – Preloaded Windows 10/8
11.	Printer- Laser Colour Printer with duplex printing and LAN port.
12.	Documents /Training and other notes: (i) The equipment should be certified by European CE marking or UL marking. (ii)Should have safety certificate from a competent authority like CE/Equivalent or valid detail of electrical and functional safety test. Copy of the certificate/test report shall be produced along with the technical bid (iii)Comprehensive guarantee period with spare parts for at least three years from the date of installation. (iv)Instruction Manuals (Hard Copy or Soft copy as applicable) along with standard Operation Procedures (SOP) and appropriate Dust cover for the instrument. (v)Installation qualification (IQ), Operational Qualification (OQ) and Performance Qualification (PQ) documents should be provided at the time of supply of the instrument. (vi)Satisfactory technical and application training to the personals at the site after installation. (vii)CMC will be given @3% of net rate-inclusive of GST (as applicable) & yearly escalation of 5% on last year's CMC price. The CMC may be awarded for five years (on yearly basis) after completion guarantee period. (viii)Minimum of two routine maintenance services/inspections to be provided annually and any number of breakdown emergency calls should be attended during the guarantee period. (ix)Price quoted should be inclusive of their complete installation in all respects at site as per purchase order. (x)Final technical approval only after demonstration of the quoted product. (xi)Any other perquisite required (if any) with specifications should be included with the instrument to run and complete the installation.

**Revised bid schedule:-**

E-bids are invited as per following revised time schedule:-

Last date & time for sale of bid form	Last date & time of receipt of bid form	Date & time of opening of technical bid
<b>18.02.2019</b> <b>11:00 AM</b>	<b>18.02.2019</b> <b>6:00 PM</b>	<b>19.02.2019</b> <b>11:00 AM</b>

It is also clarified that information of award of contract shall be communicated to all participating bidders on the website [www.rmssc.nic.in](http://www.rmssc.nic.in) and [sppp.raj.nic.in](http://sppp.raj.nic.in). Please note that individual bidder will not be intimated."

**Note:-** Please note that all above amendments/corrigendum in technical specifications/bid conditions is the integral part of (Section-V, Schedule of Supply, and Point no. 3) and the bid document. This corrigendum/ addendum should be signed and annexed with bid document. All other terms & conditions remains the same.

This bears the approval of M.D., RMSCL, Jaipur.

**Executive Director (EPM)**  
**RMSCL, Jaipur**