Rajasthan Medical Services Corporation Limited, Jaipur

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No. F-8( ) RMSC/EPM/M-2/18-19/NIB-411/ 362 A Dated: 5-2-19

CLARIFICATION/CORRIGENDUM/ADDENDUM

Sub:- Revised bid Schedule and amended Technical Specification of the rate contract for ICP-Spectrophotometer with Accessories for under NIB No. F-8( ) RMSC/EPM/M-2/18-19/NIB-411/89 dated 09.01.2019

In reference to subject cited above and NIB-411, 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:-

Revised Technical Specifications for ICP- Spectrometer with accessories:-

	Sample Introduction	Computer controlled Four channel peristaltic pump, Peltier cooled spray Chamber, low mist nebulizer
	Sample Dilution	Software controlled Argon or aerosol dilution system or combination of argon and Liquid dilution system should be included. The system should be able to analyse samples of TDS up to 20%. Productivity mode configuration should be offered
	Plasma	500-1500W or better
	RF Generator	27 or 40 Mhz, as per system design If RF coil is a consumable then additional coils should be quoted separately
	Alignment	Automatic and computer controlled
	Plasma view & Gases plasma view	Programmable computer controlled all mass flow controllers' i.e nebuliser flow, auxiliary flow and plasma gas flow
	Auxiliary Gases	Built in option with programmable computer controlled mass flow controllers
	Ion Focusing, Cone interface setup & Gas cell modes	a. Universal cone interface for best sensitivity for high matrix as well as low matrix samples b. Collision cell technology to remove polyatomic interference: The system should have collision/reaction cell technology for effective removal of polyatomic and isobaric interferences. The collision/reaction cell must operate effectively in collision mode, using pure helium gas. The system must have a dedicated gas line for reactive gas such as H2, O2, CH4, and NH3.The system must have the capability to use above gases in pure or premix form. The system should be operated in standards, Collision and reaction mode in a single run without changing any hardware parameter and this should be demonstrated post installation.
	Background noise and signal	Should be <1 cps
	Interference Removal System	Should be equipped with best in line technology, capable of operating in standard, collision and reaction modes.
	Controls & features	Gas controls should be inbuilt and software controlled. a. Argon gas humidifier must be quoted along with main instrument. b. Shield torch (if required) or suitable mechanism. (If shield torch is a consumable then it should be clearly mentioned and additional shield torch should be quoted for five years of smooth operation) c. The system should be able to analyze high matrix samples and high sensitivity mode without changing any hardware in the interface

		d. Spray chamber provided along with the instrument should be of scott double pass or cyclonic and should have capability of peltier cooling from –10°C to 20°C or better
	Mass Analyzer	Hyperbolic or equivalent quad rods for required to achieve required sensitivity, detection limit, LDR etc.
	Range	2 – 285 amu or better
	Scan Speed	3000 amu/sec or better
	Dynamic Range	Minimum 9 orders or more
	RF Frequency	minimum 2Mhz to maximum 3 Mhz
	Mass calibration Stability	<0.05 amu over 8 hours of continuous operation
	Heat Exchanger	Suitable re-circulating Chiller changer for plasma component cooling.
	Guaranteed Performance	a. Detection Limit ng/L (ppt) : Li or Be (low mas) < 0.5; In or Y (mid mas) < 0.2,U or Bi Or Ti (High Mas) < 0.2 b. Sensitivity Mcps/ppm: Li Or Be (Low mass) :>50 Mcps/ppm, Y or In (mid mass) >200 Mcps/ppm & Tl Or U (High mass) >280 c. Oxide ratio.CeO+/Ce+ < 3 % d. Doubly charge ratio :Ce++/Ce+ < 3% e. Isotope-ratio Precision: <0.1%RSD
	Setup and Detection Solutions	All setup and tuning solutions quoted should be available.
	System control and data acquisition	The system should perform auto optimization of plasma parameters like plasma power, plasma gas flow etc. The instrument software shall allow auto - tuning to enable the instrument to be used with the consistent and reproducible day to day performance independent of the operator. Acquisition mode: Peak Jumping, scanning, Time resolved analysis, Isotope Ratio measurements using integral software. Analysis mode: Shall allow for semi quantitative analysis, external calibration and internal standard addition methods for fully quantitative analysis, allowing parts per trillion level analysis and isotope ratio measurements with precision better than 0.2 %. Report Generation: Output results formatted in mixed concentration units e.g. ppt, ppb, ppm etc. Quality control and software: Software for automated QA/QC during unattended operation. It must have all the features of CFR 21 Part 11 audit trials offered as standard.IQ/OQ kit to be included in the quote. Offline data processing and exportability of data to other standard packages should be available. Matrix specific databases to provide preferred isotope selection should be available. ICPMS should be compatible and capable to connect with ion chromatography to perform speciation study in future if required. Preferably system should be capable to control both IC and ICPMS through single software
	Vacuum System :	a. Suitable turbo molecular pump, corrosion resistant and protected b. Automatic chamber vacuum isolation when plasma extinguishes c. Automatic chamber vacuum isolation during system faults d. The instrument should be operational for quantification within 3 hours from cold start (Demonstration during performance qualification after installation)
	Certified standard	a. multielement EPA/water (02 Sets) ,1000 µg/mL Fe, K, Ca, Na, Mg, 10 µg/mL Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, Th etc. b. Tuning solution kits should be supplied.
	Software	Original OEM Software's in Installable CD/Image Disks with two licences for operation and data analysis.

		a. Should include all activation licenses/keys. b. All analysis parameters should be software controlled within a single method c. Should control all operating components d. Functionality like Internal standard stability, QC checks, error flag e. Acquire and process data for quantitation in calibration curve fit modes
	Accessories	a. Dedicated Hydrofloric Acid (HF) kit with separate inert torch, injector, Spray Chamber, tubing's, nebulizer etc.
		a. Gas cylinders for ICPMS- Argon (04 No.), b. He, H2 and NH3 gases cylinder (01 No each either in pre-mix or pure form.), c. Oxygen Gas cylinder (01 No), d. Gas purification panels with fittings for supplied gases, e. Two stage manual manifold for Argon gas, f. Suitable Fume hood/Exhaust system. g. Suitable online UPS with 1 Hr Backup. h.21/23 Multi-element NIST traceable standard.
	Consumables for ICPMS	i. Standard Injector (03), ii. Oil Element /Mist Filter (02Set), iii. Standard Spray chamber (02 Set), iv. Standard Torch (04 Set), v. Peristaltic pump tubing for drain Pk/12 (04set), vi. Peristaltic pump tubing for sample Pk/12 (04 Set), vii. Vacuum Pump oil for 5 years of smooth operation. viii. Screw, Spacer & O-ring for cell (04) Set), ix. Tubing for drainage (04 set), x. RF coil (if consumable)(02 Set), xi. Pt skimmer and Pt sampler cone (02 set) , xii. Ni slimmer and sampler cone (02 sets) , xiii. Enhanced Metric Torch (EMT (01) , xiv. ICPMS Auto sampler 180 sample capacity or more vial with complete tubing set sample intake ,rinse& drain (02 set each), Auto sampler Injection Syringe/needle (02 set) with 1000 Vials.
	Suitable/OEM recommended PC	Suitable PC & Printer with suitable UPS of 60 minute backup time of reputed brands specification as under: Processor - Intel i7 Latest generation; RAM - 16 GB ; Hard disk - 2 TB ; Graphic Card; DVD writer; 23" TFT screen ; LAN Port ; USB 2.0 Ports (4 Nos.) ; Wi-Fi ; Multimedia Keyboard ; Optical Mouse
	Operating System	Windows 10/8 64 Bit architecture
	Printer	Laser Colour Printer Monochrome with duplex printing and LAN port.
	Documents and Training and other notes:	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 @5% 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:-

Existing Dates			Extended Dates		
Last Date for Sale of Bid Form	Last Date of Receipt of Bid Form	Date of Opening of Technical Bid	Last Date for Sale of Bid Form	Last Date of Receipt of Bid Form	Date of Opening of Technical Bid
1	2	3	4	5	6
11.02.2019 11:00 AM	**11.02.2019 6:00 PM**	**12.02.2019 11:00 AM**	**14.02.2019 11:00 AM**	**14.02.2019 6:00 PM**	**15.02.2019 11:00 PM**

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 an approval of Managing Director, Rajasthan Medical Services Corporation Limited, Jaipur.

15-2-2019

Executive Director (EPM)
RMSCL, Jaipur