



## Rajasthan Medical Services Corporation Limited, Jaipur

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No. No. F-8()RMSC/EPM/M-5/17-18/NIB-293/ 332

Date:- 29/1/18

### CLARIFICATION/CORRIGENDUM/ADDENDUM

Subject: Amended technical Specifications and other terms and conditions of Bid document for the UV – VIS Spectrophotometer for Food Lab under NIB No. F-8()RMSC/EPM/M-5/17-18/NIB-293/5979 dated 21.12.17.

In Reference to above cited subject and NIB-293, the technical specification of items are here by amended as below:-

### **Technical Specification of UV-VIS Spectrophotometer**

S.No.	Specifications	Requirement
1.	Application	UV-Vis The System should be capable to measure parameters in food and water samples as per FSSAI requirements including Enzyme assays, Kinetic assays and scans
2.	System	A fully automated spectrophotometer with double beam optics with pre-programmed applications using conventional match quartz cuvettes with all the requirement accessories.
3.	Operation Keys	1. Instrument should operate immediately after switch on with no warming up time. 2. Should be automatically programmed. 3. Instrument should be controlled by computer software. 4. Capable to store method with analysis :> 100 method programs on the instrument, > 1000 results with data, evaluation results and used parameters or better.
4.	Optical Design	<ul style="list-style-type: none"><li>• Double Beam with sample and reference cuvette positions; Czerny-Turner Monochromatic/Holographic grating with sealed optics</li><li>• Reference and sample Compartment Should accommodate cells up to 10mm to 50mm path length as standard feature.</li></ul>
5.	Light Source	Halogen lamp for Visible range. Deuterium Lamp for UV range, light source should be auto automatically selected as per wavelength required.
6.	Detector	PMT
7.	Scan Ordinate Modes	Absorbance, % Transmittance, % Reflectance
8.	Resolution	0.1 nm or better.

*(Signature)*

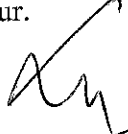
9.	Wavelength Range	190-900 nm or better
10.	Wavelength Accuracy	$\pm 0.3$ nm or better for entire range
11.	Wavelength Repeatability	$\pm 0.1$ nm or better
12.	Scanning Speed	Selectable Variable wavelength scan rate 10 nm/min to 2500 nm/min or
13.	Spectral Bandwidth	Variable (0.2 to 4) nm or better
14.	Photometric Range	Absorbance = -4.0 to 4.0 Abs or better.
15.	Photometric Accuracy	0.5 A $\pm$ 0.004A; 1A: $\pm$ 0.006A; 2A $\pm$ 0.01 A; (440 run; traceable neutral density filters)
16.	Stray Light	$\leq 0.01$ % or better (220 nm NaI)
17.	Noise	0.00005 Abs RMS (500nm) or better
18.	Drift	$< 0.0005$ A/hr (500 nm, 2 hour warm-up)
19.	Baseline flatness	$\pm 0.0005$ Abs or better
20.	Application Software	<p>Compatible Software should be user friendly &amp; simple for data handling with feature like easy to use report publisher, online help and answer wizard, GLP &amp; audit trail and fully compatible with Windows.</p> <p>System built in features such as real time display of concentration, time scan, photometric mode, single/multi-wavelength , -capability for event recording (e.g., addition of reagents)</p> <p>Measurement facility with interpretation.</p> <p>Software should have built in</p> <p>a) Methods:</p> <ul style="list-style-type: none"> <li>• Absorbance with one or more wavelengths,</li> <li>• Scans, Nucleic acids, Proteins, OD 600,</li> <li>• Evaluation: via factor, standard and calibration curve</li> <li>• Dual wavelength with subtraction and division evaluation</li> </ul> <p>b) Method dependent evaluation:</p> <ul style="list-style-type: none"> <li>• Absorbance, concentration via factor and standard</li> <li>• Concentration via standard series using Linear regression, Nonlinear regression with 2nd and 3rd degree polynomials</li> <li>• Spline analysis,</li> <li>• Linear interpolation (point to point evaluation)</li> <li>• Absorbance allocation via subtraction and division</li> <li>• Ratio 260/280, 260/230, Molar concentration and total yield for nucleic acids.</li> </ul> <p>The software should be 21CFR part 11 compliance.</p>
21.	Accessories and spares	<ul style="list-style-type: none"> <li>• Three match pair quartz cuvettes 10 mm and 50 mm path length.</li> </ul>

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		<ul style="list-style-type: none"> <li>• Cuvette holder for 10 mm and 50 mm.</li> <li>• Deuterium Lamp</li> <li>• Halogen lamp</li> <li>• Holmium oxide glass filters for wavelength calibration.</li> <li>• NIST traceable Potassium dichromate</li> <li>• Transmission/Reflectance sphere: 50 mm or better Transmission/Reflectance sphere should be quoted for measuring the diffuse reflectance, total transmittance, diffuse transmittance, and performing color analysis.</li> </ul>
22.	Computer and printer	<p>Branded PC (processor minimum intel i5 or better) with 4GB Ram, 500GB HDD, flat screen monitor, optical mouse pre-loaded windows and Laser printer should be quoted along with system.</p> <p>Software: System compatible original licensed software should be provided with following capabilities:-</p> <ol style="list-style-type: none"> <li>a. Software should measure Absorbance, Transmittance and reflectance at the full or selected wavelength with real-time spectral displays and live instruments accessories status bar.</li> <li>b. Software should have facilities to export data to clips board, CVS file, excel file, BMP file, ASCII file, JCAMP file, zoom in/out, add/edit label.</li> <li>c. Software should have facilities fully integrated scan, kinetic and wavelength program, data collection mode.</li> </ol>
23.	UPS	3 KVA UPS with 60 mins backup minimum.
24.	Calibration	Certificate from an ISO 17025 accredited lab spectral calibration and also calibration to be demonstrates at consignee site.
25.	Compliance	IQ,OQ, PQ and SOP of instrument and Software should be provided along with document
26.	Installation	Installation will be done by supplier free of cost including all parts like wires, tubes, joints, attachments, small fixtures and standards chemical etc.
27.	Pre-installation condition	Firm should mention all the pre installation requirements in technical bid. Technical compliance sheet should be submitted in technical bid document, along with specification points.
28.	Air conditioner (Split)	1.5 ton five star rated with stabilizer should be provided two in number (Hitachi/Daikin/Mitsubishi)
29.	Operation and training component	<ul style="list-style-type: none"> <li>• The supplier will have to carry out successful Installation at the laboratory premises (where ever the system has to be installed) and provide on - site comprehensive training minimum two scientific personnel/operating the system not less than two weeks.</li> <li>• The supplier should provide an training instructor for initial 06 month minimum to train on duty staff and after 06 month as per demand of user department as an when required.</li> </ul>
30.	Certificates	<ul style="list-style-type: none"> <li>• Should have USFDA/European CE approved by Notify body.</li> </ul>
31.	Supplier/Manufacturer	<ul style="list-style-type: none"> <li>• Manufacturer and Supplier should have ISO 9001/ISO 13485 certified.</li> </ul>
32.	Service Support Contact details	<ul style="list-style-type: none"> <li>• Contact details of manufacturer, supplier and local service agent to be provided;</li> </ul>
33.	Recommendations or warnings	<ul style="list-style-type: none"> <li>• Any warning signs would be adequately displayed</li> </ul>

34.	Guarantee	<ul style="list-style-type: none"> <li>• Guarantee for 3 years on equipments, accessories and all peripherals/subsystem form the date of installation which installation which include 04 visit and unlimited breakdown calls by service/ application supports engineer/chemist during the guarantee period. (Including UPS &amp; Battery)</li> </ul>
35.	Comprehensive Maintenance	CMC shall be given @ 5% of net rate (excluding GST as applicable) and yearly escalation of 5 % on last year's CMC price. The CMC may be awarded for five years (on yearly basis) after Guarantee period of three years.
36.	Service contract clauses, including prices	<ul style="list-style-type: none"> <li>• List of all spares and accessories (including minor) with part numbers and price, required for maintenance and repairs in future after guarantee/CMC period should be attached;</li> </ul>
37.	Operating manuals, service manuals, other manuals	<p>Should provide sets (Original hardcopy and soft-copy) of:-</p> <ul style="list-style-type: none"> <li>• User, technical and maintenance manuals to be supplied in English language along with machine diagrams;</li> <li>• List of equipment and procedures required for local calibration and routine maintenance;</li> <li>• Service and operation manuals (original) to be provided;</li> <li>• Advanced maintenance tasks documentation;</li> <li>• Certificate of calibration and inspection (Original).</li> </ul>

This corrigendum shall be signed and annexed with bid document. This bears an approval of Managing Director , Rajasthan Medical Services Corporation Limited, Jaipur.

  
29.1.2018  
 Executive Director (EPM)  
 RMSCL, Jaipur

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