

TECHNICAL SPECIFICATION
UV – VIS SPECTROPHOTOMETER

PC controlled True double beam UV-Visible Spectrophotometer with below mentioned specifications:-

1. For routine to research analysis, instrument should offer real innovations that provide enhanced usability and performance - without added complexity.
2. Double-beam geometry with variable spectral bandwidth for precision measurements.
3. **Source should be D2-Tungston/Xenon for instant measurements.**
4. **Detector:** Dual Silicon Photodiodes / PMT for Sample and Reference
5. **Monochromator:** Blazed holographic grating with 1200lines/mm, Czerny□ Turner with 0.2 m focal length.
6. **Spectral Bandwidth(s): 0.5, 1, 2, 5, 20 nm**
7. **Scan Ordinate Modes:** =Absorbance, % Transmittance, % Reflectance
8. **Range : 190 to 1100 nm**
9. **Wavelength Accuracy :** +/- 0.1 nm at D2 peak @ 656.1 nm, +/- 0.3 nm for full range
10. **Wavelength Reproducibility :** +/- 0.1 nm
11. **Photometric Range : -4 to +4**
12. **Photometric Accuracy :** +/- 0.002A (0□.5 Abs) and +/- 0.004A (.5□1 Abs)
13. **Photometric Reproducibility :** +/- 0.001 Abs @ 0.5 Abs
14. **Stray light :** < 1.0% (198 nm KCL), <0.02% (220 nm NaI) and <0.02% (340 nm NaNO₂)
15. **Baseline Stability :** < 0.0003 Abs/h (700nm, after One hour warm up)
16. **Baseline Flatness :** +/- 0.0005 Abs (After one hour warmup)
17. **Photometric Noise :** < 0.00005 Abs (at 700 nm, RMS)
18. **Maximum Scan Rate :** 3000 nm/min or better
19. **Maximum Slew Rate :** 8000 nm/min
20. Instrument should be control by computer software.
21. Branded PC with 4GB, 500 GB HDD, Flat Screen Monitor, Optical Mouse, pre-loaded Windows and LaserJet Printer should be quoted along with system.
22. Quartz Cell – 10mm & 50 mm with assembly– 6 Match Pairs each.
23. 3 KVA UPS with 60 minutes battery back up
24. Other accessories
50 mm Transmission/ Reflectance Sphere: 50 mm Transmission/ Reflectance Sphere should be quoted for measuring the diffuse reflectance, total transmittance, diffuse transmittance, and performing color analysis.
25. Software : System compatible original Licensed Software should be provided with following capabilities :-
 - A. Software should measure Absorbance, Transmittance and Reflectance at the full or selected Wavelength with real-time spectral displays and live instrument and accessory status bar.
 - B. Software should have facility to export data to Clip board, CSV file, Excel file, BMP file, ASCII file, JCAMP file Zoom In / Out, Add / Edit Labels.
 - C. Software should have facility for fully integrated Scan, Kinetic, and Wavelength program data collection mode.

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Other Terms & Conditions:

1. Manufacturer of Equipment & Accessories should be ISO 9001 / ISO 13485 certified.
2. Equipment and Accessories should be US FDA / European CE certified by Notified Body.
3. **Guarantee:** Three years on equipment, accessories and all peripherals / sub systems from the date of installation, which Includes 4 visits and unlimited breakdown calls by service/application support engineer during the Guarantee period.
4. Basic training for a period of not less than two weeks after installation of the equipment to technical personnel includes Operational & Trouble shooting training as and when required.
5. Manufacturer should provide an Training Instructor for initial 6 month (minimum) to train on duty staff and after 6 month as per demand of user department as an when required.
6. Installation will be done by supplier free of cost including all parts like wires, tubes, joints & attachments, small fixtures etc.
7. **Firm should mention all the pre-installation requirements in technical bid.**
8. Technical Compliance statement should be submitted in Technical Bid Documents, along with every above mentioned point should be submitted with relevant literature, specification sheets and brochures. Any deviation from specifications should be clearly mentioned in compliance statement.
9. **Comprehensive Maintenance Service: The CMC may be awarded for five years (on yearly basis) after Guarantee period of three years. CMC should be quoted in BOQ inclusive of Excise Duty & exclusive of VAT/CST etc.) plus service tax (as applicable) .**
10. Manufacturer should provide SOP , I.Q & O.Q etc. as per System requirements.
11. **1.5 ton Air conditioner** five star rated with stabilizer should be provided.-2 Nos - (LG, Samsung, Hitachi or equivalent)

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**Executive Director (EPM)
Rajasthan Medical Services Corporation Ltd,
Jaipur**