

Specifications of Double Beam UV-Visible Spectrophotometer

Sr. No.	Microprocessor based UV-Vis Spectrophotometer with the following specifications:	
1	Photometric System	Double beam optics
2	Photometric range	Absorbance: -4 to +4.0 Abs, Transmittance: 0.0 to 400%
3	Photometric Accuracy	+/- 0.0015 Abs. at 0.5 Abs or better
4	Wavelength Range	190 to 1100 nm or better
5	Wavelength Accuracy	+/- 0.05 nm at D2 peak 656.1 nm ± 0.3 nm or less in entire range
6	Wavelength Repeatability	+/- 0.025 nm or better
7	Photometric Repeatability	< +/- 0.00005 Abs at 0.5 Abs or lesser < +/- 0.00005 Abs at 1 Abs or lesser < +/- 0.00008 Abs at 2 Abs or lesser
8	Scanning speed	Up to 25,000 nm/min or better
9	Spectral Bandwidth	1 nm or better
10	Stray light	< 0.005 % at 220 nm (NaI) or lesser < 0.005 % at 340 nm (NaNO ₂) or lesser < 0.2% at 198 nm (KCl) or lesser
11	Baseline Stability	less than 0.0002 Abs/H
12	Baseline Flatness	less than 0.0003 Abs/H
13	Noise Level	Less than 0.00001 Abs
14	Monochromator	Czerny Turner blazed holographic grating
15	Detector	Silicone photodiode
16	USB Port connectivity	2-3 USB ports for data Transfer, PC, Printer
17	Light source	Tungsten and Deuterium lamp.
18	Quartz Cuvette	3 mL capacity, Pathlength of 10 mm (04 Pairs)
19	Spectrophotometer should have built in hardware validation for Wavelength accuracy, wavelength repeatability, resolution, stray light, photometric accuracy, photometric repeatability, baseline flatness, baseline stability, noise level.	
20	Windows based Operating software should have built in features like real time concentration display, Photometric mode Single / multi-wavelength, Enzyme Kinetics calculation, event recording such as Addition of reagents during measurement, DNA/protein quantification etc. Spectrophotometer should have built-in color touch screen display so that it can be used without PC/Laptop also.	
21	Branded PC i3 Processor and Suitable online UPS with 30 minutes back up	
22	Warranty: One Year	
23	Note: Vendor should clearly mention make and model, also enclose Catalogue/Data sheet of the Model quoted in support of the above mentioned Specifications otherwise their bids will be rejected.	
24	Additional Warranty changes to be quoted separately.	

25) Weighing balance — 04 ^{upto} decimal

26) Desktop (01) and printer (01)

27) ~~Online~~ USB backup