## Annexure-A

## Specifications Detail for UV-Vis Spectrophotometer Double beam

S.no.	Specifications	Product Descriptions
1.	Description	UV-Vis Spectrophotometer Double beam
2	Compartments	8-position cell changer (standard)
		4 position cell changer (long path cells)
		Peltier thermostatted cell holder (20-60 °C)
		Slipper accessory
		Fiber optic probe coupler
3	Connections	Single USB – A
		Duplex USB – A
		Export data to network or PC via USB, Ethernet, or Wi-Fi USB
		adaptor, available
		Print via USB, Ethernet or Wi- Fi USB adaptor available
4	Baseline Flatness	± 0.002 A
5	Detector Type	Dual Silicon Photodiodes
6	Display	High-Definition Color Touchscreen (large display)
7	Spectral Bandwidth	2 nm
8	Wavelength Range	190 to 1100 nm
9	Drift	(At 500nm after 1 hour warm up) <0.0005 A/hr.
10	Electrical Requirements	External AC to DC Converter, Voltage and Frequency (Hz)
		selected automatically, 100/240V, 50/60 Hz
11	Keypad	Touchscreen
12	Lamp Life	> 5 years
13	Noise	(RMS at 500 nm 60 consecutive measurements)
		≤0.00020A at 0A at 260 and 500 nm
		≤0.00030A at 1A at 260 and 500 nm
		≤0.00040A at 2A at 260 and 500 nm
14	Optical Design	Double Beam
15	Photometric Accuracy	$\pm 0.002$ A at 0.5 A, $\pm 0.004$ A at 1.0A, $\pm 0.008$ A at 2.0 A
16	Photometric Display	-3A to +5A
17	Photometric range	-2A  to + 3.5  A
18	Photometric	$\pm$ 0.001 A at 1 A measured at 1.0 A at 546 nm
	Repeatability	
19	Printer included	Snap – on printer
20	Scan Speed	Slow, medium and fast – up to 1600 nm/min
21	Stray Light	< 1.0%T 198nm (KCl), <0.05%T at 220 nm (Nal),
		<0.03%T at 340 nm (NaNO2)
22	Wavelength accuracy	$\pm 0.5$ nm

23	Wavelength Data	0.1 nm, 0.2 nm, 0.5 nm, 1 nm, 2 nm, 5 nm
	Interval	
24	Wavelength	< <u>±</u> 0.2 nm
	Repeatability	
25	Software and Hardware	Computer (PC) & Printer Compatible to Spectrophotometer and Its
		software by Online.
26	Warranty	03 years