ANNEXURE-'A'

S. No	Instrument	Specifications
1.	**Centrifuge**	Capacity 1200 to 1500 mL Rotor heads: 8x 100ml angle rotor head with see through acrylic cover and pp tubes
2.	**Rotary Vacuum Evaporator**	Evaporating flask size: 50-5000mL Heating Bath: B-100 (20 - C, 4L) Standard Joint: SJ 29/32 Glass Assembly: Vertical (V) Interface: I-100, Woulff bottle Vacuum Pump: V-100 (1.5m3/h, 10mbar) Recirculating Chiller: F-105, -5 to C, 500W Voltage: 220 - 240V Chiller Included
3.	**Multimode Reader**	**Wavelength Selection:** Monochromators **Detection method:** **Monochromator system:** Fluorescence, Luminescence, UV-Visible Absorbance. **Read method:** End-point, kinetic, spectral scanning, well-area scanning. **Microplate types:** 1- 6, 12, 24, 48, 96 and 384-well plates, Compatible with Take3 plate with 2 µL micro spots (optional) and Quartz Cuvette **Temperature control:** To 45°C ± 0.5 °C at 37°C (4-Zone incubation to 45ºC with condensation control) **Shaking:** Yes, Linear, orbital, double orbital. **Software:** Advanced data analysis, Excel export Control through USB or serial port. Software should offer a logical interface designed to easily flow from reading parameters, to plate layout, to powerful data reduction, and finally to flexible data output options. **Automation:** Yes **Absorbance:** Light source: Xenon Flash Lamp. Wavelength selection: Monochromator based Wavelength range: 230 - 999 nm, 1 nm increment. Bandpass: 4 nm (230-285 m), 8 nm (>285 m), Dynamic range: 0 - 4.0 OD, Resolution: 0.0001 OD Pathlength correction: Pathlength correction automatically normalizes well absorbance to standard cuvette equivalent pathlength of 1 cm for direct quantification. (Monochromator in 1nm increments with Pathlength correction.) Monochromator wavelength accuracy: ± 2nm Monochromator wavelength repeatability: ± 0.2nm OD accuracy: < 1% at 2.0 OD typical, < 3% at 3.0 OD typical. OD linearity: < 1% from 0 to 3.0 OD typical OD repeatability: < 0.5% at 2.0 OD typical Stray light: 0.03% at 230 nm typical Reading speed: 96: 11 seconds 384: 22 seconds

		Fluorescence Intensity: Sensitivity: Monochromators: fluorescein 2.5 pM typical (0.25 fmol/well 384-well plate) Light source: Xenon Flash Lamp. Wavelength selection: Double grating monochromators (Top and Bottom) and, Wavelength range: Monochromators: 250 – 700 nm. Dynamic range: 7 decades. Detection system: one pmt for monochromator system, Reading speed: 96: 11 seconds 384: 22 seconds **Time-Resolved Fluorescence (2^{o}mode):** Light source: Xenon Flash Lamp Wavelength Range: 250 - 700 nm Wavelength selection: Deep blocking bandpass dichroic mirrors. Sensitivity: Momos: Europium 1200fM (120 amol/well, 384-well plate) **Luminescence:** Sensitivity: Monochromator system: 20 amol ATP typical (flash) Wavelength range: 300 - 700 nm Dynamic range: >6 decades. Optional – Onfield upgradable to dual injectors for flash luminescence assays. Optional - Onfield upgradable for fluorescence polarization Optional – Onfield upgradable gas controller. Power: 130 Watts max Specifications are subject to change. **Multi-Volume plate should also be provided with following specifications:** **Microspots:** Up to Sixteen 2µL samples should run at one time for direct nucleic acid and protein quantification. BioCell locations should be their for quick 1cm pathlength measurements. A standard stoppered cuvette should be measured. Sample Volume: Minimum 2µL in micro spot locations Optical Pathlength: 0.5mm, Detection Limit: 2 ng/µL.