Annexure A

Technical Specification for Multimode Microplate Reader	Criteria matching(Yes/No)	Remarks
Please mention Make and Model -		
The Multimode reader should be completely monochromator based with following Detection Chemistries (No Filters or any other technology other than monochromator) UV-VIS Absorbance, Fluorescence Intensity (Top and Bottom), & Luminescence.		
System should offer excitation light source as Xenon Flash lamp.		
• System should have cooled PMT for Fluorescence & Luminescence & Only Silicon Diode for Absorbance.		
• The system should have advance cooled PMT for Fluorescence and Luminescence to reduce background noise for excellent sensitivity and wide dynamic range.		
• System should offer temperature independent Path Check Sensor correction facility to automatically normalize well absorbance equal to 1cm path length of a cuvette for spectrophotometric data's without any internal fitting algorithm.		
Well Scanning up to 20x20 in all modes should be possible.		
System should offer programmable Orbital microplate shaking methods.		
System should offer temperature control in the microplate chamber from 5°C above ambient to 65 °C or Better.		
• System should offer ability to read 6 to 384 well plates.		
• The system may have built-in near-field communication (NFC) functionality (optional) in the reader enabling to pull up custom protocols with a single tap or similar technology should be available.		
• The system should be quoted with low volume (2 µl) plate to read minimum 16 or more spots at a time.		
• System should perform Spectral Scanning, Kinetic Reading and End-point reading.		
• The system should be supplied with latest data analysis software.		
• The system should have inbuilt high-resolution touchscreen interface with embedded touch software allowing to set up custom protocols, take advantage of preloaded protocols and experiment.		
Absorbance photometric performance :		
a. Wave length range – 230- 1000		
b. Wavelength Selection: Monochromator, tunable in 1.0 nm increments.		
c. Dynamic Range: 0-4 Abs or better.		
d. Bandwidth : Within the range of 4-8 nm.		
Fluorescence Performance :		
a. Reading Capabilities: Top & bottom of a Microplate		
b. Wavelength Range: 250 – 850 nm or Better.		
c. Wavelength Selection: Monochromator , tunable in 1.0 nm increments.		

d. Dynamic range > 5 logs or better.		
e. Sensitivity – Top Read - 96 wells 1.0 pM or better, Bottom Read – 96 wells 2.0 pM or better.		
Luminescence Performance :		
a. Glow Luminescence mode		
b. Wavelength range: 300 – 850 nm or better		
c. Wavelength Selection: Monochromator.		
d. Dynamic range > 6 decades or better.		
e. Glow Sensitivity – (ATP Glow) - 96 wells 2 pM or better.		
• Special supplies: Dark plates for top optics reading in fluorescent mode (100 plates).		
• Company must provide a compliance statement supported by technical literature and website.		
• Authorisation certificate from the OEM must be included in the technical bid.		
• Unpacking and shifting of the instrument including manpower during installation must be in the vendor scope.		
• User list must be enclosed for the quoted model supplied to any other institute/Organization in Delhi and NCR.		
• Certificate for spare availability upto 10 years for quoted model to be provided from OEM along with the technical bid.		
• Min.3 Customer satisfactory / performance certificate for specific quoted model from the end user should be included in the quote.		
• Warranty 5 years including all spares , PM kit and calibrations of instrument on regular basis as and when required.		
• Include two multichannel (12 channels) pipettes (5-300ul)		
• Consumables required during installation to setup the new instrument must be quoted along with the instrument.		
• AMC & CMC Charges for the next 5 years after standard warranty must be quoted in optional item		