## INDIAN INSTITUTE OF TECHNOLOGY BOMBAY



# MATERIALS MANAGEMENT DIVISION Powai, Mumbai 400076.

#### Reference No. 115 PR No. 1000016593 (Rfx No. 6100001008)

#### **Detailed Technical Specifications for Multi-Mode Reader with Accessories:**

- 1. The reader should be capable of Measuring Absorbance, Fluorescence Intensity Top, Bottom, reading of TRF and flash/glow Luminescence with two injectors' **future upgradable to** Alpha screen, automated cell Imaging, TR-FRET, FP and reagent heater and stirrer module in Injectors.
- 2. The Reader should have 2 Monochromator across Excitation and 2 Monochromator across Emission also should have provision for filter selection simultaneously across excitation & emission and vice-versa to select different wavelengths.

#### 3. The Reader should be able to Perform following parameters in absorbance mode:

- a. Wavelength Range from 200 nm to 1000 nm with 1nm Increment
- b. Full absorbance spectrum data from 200–1,000 nm in less than 5 seconds
- c. Provision for Vertical/Up right Cuvette port facility
- d. Temperature control ambient plus 4 to 40 deg C

### 4. The Reader should be able to perform following parameters in Fluorescence mode:

- a. Wavelength Range from 250 nm to 900 nm across excitation and 280 to 900 nm emission for Fluorescence reading.
- b. Facility of Bandwidth adjustment between 5 to 50 nm

#### 5. The reader should be able to perform following parameters in Luminescence mode:

- c. Wavelength Range from 380 nm to 700 nm
- d. Reader should have option for wavelength scanning and multicolor luminescence.
- e. Dynamic range should be more than 9 orders of Magnitude.
- f. Detector: Photon counting low dark current PMT.
- g. Reader should be able to perform BRET 1 and BRET 2 assay.
- h. Dispenser should have provision for stirring and heating

#### 6. Essential Accessories

- a. The system should be supplied along with required laptop
- b. Warranty 1 year
- c. The software should have function for drag and drop for assay sequence and data reduction which provides an automatic export of measurement parameters into result files in a user specified format.