

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPHARM 0122]**

**JANUARY 2022  
(APRIL 2021 EXAM SESSION)**

**Sub. Code: 2931**

**M.PHARMACY DEGREE EXAMINATION  
SEMESTER-I (PCI New regulations 2016)  
PHARMACEUTICS - MPH**

**PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES  
*Q.P. Code : 262931***

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 75 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. a) Production of X-Rays, Different X-Ray diffraction methods, Bragg's law.  
b) Applications of X-Ray diffraction.
2. a) Write the principle, instrumentation and application of Flame Emission Spectroscopy.  
b) Compare FES & AAS.

**II. Write notes on:**

**(7 x 5 = 35)**

1. Bioluminescence assays.
2. Rotating crystal technique and X-Ray powder technique.
3. Capillary electrophoresis.
4. Gas chromatography.
5. Applications of Mass spectroscopy.
6. Spin-Spin coupling and Coupling constant.
7. Paper Chromatography.

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