

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

[M.PHARM 0423]

**APRIL 2023
(OCTOBER 2022 EXAM SESSION)**

Sub. Code: 2901

**M.PHARMACY DEGREE EXAMINATION
FIRST YEAR – (Common to all Branches)
PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES**

Q.P. Code: 262901

Time : Three hours

Answer ALL Questions

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Give fragmentation rules for organic molecules in Mass spectrometry.
b) Write the principle of Mass spectrometry.
2. a) Draw, Label and working of a Double beam UV spectrophotometer.
b) Explain chromophore concepts in UV.

II. Write notes on:

(10 x 6 = 60)

1. Principles of NMR.
2. Basic concept of IR interpretation.
3. HPLC detectors.
4. Instrumentation of gas chromatography.
5. X-ray diffraction methods and applications.
6. Write on Cotton effect.
7. DSC and its application.
8. Write on super critical fluid chromatography.
9. Give an account on Radio Immunoassay.
10. Briefly write on Correlation and Regression.
