

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

[MPHARM 0122]

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

Sub. Code: 2981

M.PHARMACY DEGREE EXAMINATION

SEMESTER-I (PCI New regulations 2016)

PHARMACOLOGY – MPL

PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Q.P. Code : 262981

Time : Three hours

Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Draw a neat labeled diagram of Double beam UV Spectrophotometer and explain construction and working.
b) Discuss the solvent requirement and relaxation process in NMR Spectroscopy.
2. Explain the principle, instrumentation and applications of the Gas chromatography.

II. Write notes on:

(7 x 5 = 35)

1. Write the applications of Mass Spectroscopy.
2. Write the principle and different types of ion exchangers used in ion Exchange chromatography.
3. Write a note on Chromophore and Auxochrome.
4. Discuss on Iso electric focusing.
5. Write the theory of fluorescence with Jablonski diagram.
6. Explain about rotating crystal technique.
7. Explain the fundamental vibrations of the molecules in IR Spectrophotometry.
