

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

[LP 931]

NOVEMBER 2019

Sub. Code: 2931

M.PHARM. DEGREE EXAMINATION
(PCI New regulations 2016)
SEMESTER-I
BRANCH I – PHARMACEUTICS – MPH
PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Q.P. Code : 262931

Time : Three hours

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Write on theory of fluorescence spectroscopy and its applications.
b) Explain the factors affecting fluorescence spectra of a compound.
2. a) Explain fragmentation rules in Mass spectrometry. Briefly write on interpretation of Mass Spectra.
b) Give an account on MALDI.

II. Write notes on:

(7 x 5 = 35)

1. Give an account on electron capture detector and Flame ionization detectors of GC.
2. Chemical shift and its importance.
3. Two compounds (A&B) separated in a 25cm column with an Rt of 5,2min(A), and 12min(B). The peak width read as 1.2 (A) and 1.5(B). Find the resolution and efficiency of system.
4. What are the absorption principles and laws governing UV absorbance?
5. Write on affinity chromatography.
6. The absorbance of a compound is 0.4789, where A (1%,1cm) is 715 at 275nm in a 1 cm sample cell. Calculate the concentration.
7. Explain X-ray crystallography.
