

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

[LQ 0121]

JANUARY 2021

Sub. Code: 2991

(APRIL 2020 EXAM SESSION)

M.PHARMACY DEGREE EXAMINATION

SEMESTER-I (PCI New regulations 2016)

PHARMACOGNOSY – MPG

PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Q.P. Code : 262991

Time : Three hours Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Discuss the principle and instrumentation of Nuclear Magnetic resonance Spectroscopy.
- b) Predict the Splitting Pattern for ethanol and 1,1',2-tribromoethane in ¹H-NMR.
2. a) Explain the principle and working of High Performance Liquid Chromatography.
- b) Explain the working principle of any two detectors used in Gas Chromatography.

II. Write notes on:

(7 x 5 = 35)

1. Deduce the Mass interpretation Patterns for (i) Benzaldehyde (ii) Benzamide.
2. Describe the working principle of and instrumentation of TGA.
3. Discuss about the choice of solvent and solvent effect in UV-Visible Spectroscopy.
4. With examples explain the factors affecting fluorescence intensity.
5. Outline the principle and the interferences involved in Flame emission Spectroscopy.
6. Briefly explain the principle and applications of Gel electrophoresis.
7. Explain the rotating crystal technique with a neat labeled diagram.
