

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

(LN 4270)

AUGUST 2018

Sub. Code: 4270

**B.PHARM. DEGREE EXAMINATION
FOURTH YEAR
PAPER IV – MODERN METHODS OF PHARMACEUTICAL
ANALYSIS**

Q.P. Code: 564270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Write in detail about the detectors used in Gas chromatography.
b) Write about the sampling techniques in IR spectroscopy.
2. a) Explain about the principle and instrumentation of Mass spectrometer.
b) Write about the applications of NMR.

II. Write notes on:

(8 x 5 = 40)

1. Write about the different types of detection techniques in paper chromatography.
2. Explain about the different types of vibration modes in IR.
3. Describe the construction and working of glass electrode.
4. DME in Polarography.
5. ELISA.
6. Ultra centrifugation.
7. Write in short about Gel Electrophoresis.
8. Explain the various parameters involved in the validation of analytical instruments.

III. Short answers on:

(10 x 2 = 20)

1. Define Chromophore and give examples.
2. Limiting current.
3. Define Dipole moment.
4. What is shielding?
5. Define the term phosphorescence.
6. Define Base peak.
7. What is conductivity?
8. Silicagel GF.
9. What is tailing and fronting peak in HPLC?
10. Write Nernst equation.
