Total No. of Questions : 8]

MPY-101

M. Pharm. (I Semester.) Examin.

MODERN ANALYTICAL TEC...

Time : Three Hours
Maximum Marks : 75
Minimum Marks : 38

Note : Attempt any five Questions. All question carry equal marks.

Q.1 Give the Principle of Mass Spectrometry. Discuss the various ionization techniques along with merits and demerits.

Q.2 Give the principle, instrumentation and applications of High Performance Liquid Chromatography.

Q.3 Describe the different vibrational modes in infrared spectroscopy. Discuss the instrumentation and advantages of FT-IR spectroscopy.

Q.4 Explain the terms 'Magnetic Anisotropy' and 'Spin Spin coupling'. Describe the factors which affect the size of the coupling constant.

Q.5 Explain the origin of Flurosence. Describe the factors which affect the fluroscent efficiency. Draw a schematic diagram of spetroflurimeter and give its operational details.

Q.6 Give the principle of Radioimmuno assay techniques. Discuss the methodology and its application.

Q.7 Give the principle and application of the following:
a) Atomic Absorption Spectroscopy
b) Optical Rotatory Dispersions

Q.8 Write short notes on (ANY TWO)
a) C^{13} NMR Spectroscopy
b) Gel Chromatography
c) Differential Thermal Analysis
d) Cytometry
