

[LI 340]

APRIL 2016

Sub. Code: 2901

M.PHARM. DEGREE EXAMINATION

(Common to all Branches)

FIRST YEAR

PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Q.P. Code: 262901

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Discuss about the molecular vibrations, and the instrumentation of IR spectroscopy.
b) Discuss the principle of different Ionization techniques used in Mass spectroscopy.
2. a) Write theory of Fluorescence with neat diagram.
b) Explain the relationship between:
 - i) Chemical structure and Fluorescent intensity.
 - ii) pH and Fluorescent intensity.

II. Write notes on:

(10 x 6 = 60)

1. Derive Bragg's law and discuss the applications of X-ray diffraction method.
2. Write a note on circular Dichroism and its relation to ORD.
3. Write the principle involved in Flame emission spectroscopy.
4. Write a note on the principle of Radio Immuno Assay.
5. Write a note on coupling constant and the factors influencing the value of coupling constant.
6. Give an account on scientific writing of paper.
7. How do you calculate the absorption maximum wavelength for Dienes with Woodward Fisher rules?
8. Why is it necessary to apply statistical methods to analytical techniques? Add a note on Chi-Square test.
9. Discuss briefly about ESR and its application.
10. Explain briefly about Gel Electrophoresis.
