

QP Code: 101329

Reg No:

First Year M.Pharm Degree Examinations (Supplementary)- November 2012
(Pharmaceutical Analysis)

Paper I- Analytical Techniques and Instrumentation

Time: 3 hrs

Maximum Marks: 100

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essays:

(2x20 =40)

1. Discuss the various ionization techniques in mass spectroscopy. Explain the principle and working of quadrupole mass analyzer. Add a note on different types of ions produced in mass spectroscopy.
2. What is the principle of fluorimetry. What are the factors influencing fluorescence intensity and add a note on applications of fluorimetry. Explain with examples fluorescent immunoassay.

Short Essays:

(6 x10=60)

3. Explain Bragg's law and X-Ray powder diffraction.
4. Describe the instrumentation and applications of HPLC.
5. Explain the spin-spin and spin lattice relaxation. What is meant by nuclear overhauser effect (NOE).
6. Discuss in detail the various detectors used in gas chromatography. Add a note on Van Deemter equation.
7. What is coupling constant. How the J values are used for characterization of molecules.
8. Discuss the factors influencing vibrational frequencies and its applications.
