

[LC 814]

APRIL 2013

Sub. Code: 3814

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION**THIRD YEAR****PAPER II – PHARMACEUTICAL ANALYSIS***Q.P. Code: 383814***Time: Three Hours****Maximum: 100 marks****Answer All questions****I. Elaborate on:****(2 x 20 = 40)**

1. Explain the working and components of gas chromatograph with help of a neat, labeled, schematic block diagram. Write a note on classification, principle, factors influencing the separation and criteria to perform the Gas chromatography.
2. a) Draw an UV-Visible double beam spectrophotometer with a neat, labeled, block diagram and explain its each component operational mode.
b) Why a double beam spectrophotometer gives more precise, reliable and reproducible results in comparison to a single beam spectrophotometer?
c) What are the factors influencing the absorption of radiant energy?

II. Write notes on:**(10 x 6 = 60)**

1. Give a brief and comprehensive account of application of conductometry?
2. State Beer-Lambert's law. Derive it Write its application, deviation and limitation.
3. Discuss the underlying principle and interference of atomic absorption spectrometry.
4. Name the detectors used in HPLC. Discuss any one of them.
5. Differentiate validation and calibration. Give a brief account of validation of analytical methods.
6. Explain the theory and procedure of DSC.
7. Discuss the fundamental theory of mass spectroscopy.
What are the different ions produced in mass spectrum?
8. What is quenching? What are different type of quenching?
Write a note on factors affecting the fluorescence intensity.
9. Explain the various method of sample handling in IR-Spectroscopy.
10. Give a brief account of :
a) Indicator electrode, b) Polarizable electrode, c) Spectrophotometric titration.
