

[LB 814]

OCTOBER 2012

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 in the same order****I. Elaborate on :****Pages Time Marks
(Max.) (Max.) (Max.)**

1. Explain the working with the help of a neat, labeled, schematic block diagram of a HPLC and describes its operational modalities briefly. Write the advantages and classification based on mode of separation of HPLC. 17 40 min. 20
2. Discuss the underlying principle of Atomic Absorption Spectrometry (AAS). Describe the various components that are essentially involved in double beam AAS with help of a schematic diagram. How do the following three types of interferences affect the atomic absorption spectroscopic methods (a) Spectral interferences (b) Chemical interferences (c) Ionisation interferences. 17 40 min. 20

II. Write notes on :

1. Express Beer-Lambert's Law. Write its limitation, application and deviation. 4 10 min. 6
2. a) Flame ionization detectors. 4 10 min. 6
b) What are the various factors affect the separation of compounds in column chromatography.
3. Discuss the typical conductometric titration curves obtained in conductometric method of analysis and examine them critically with appropriate examples . 4 10 min. 6
4. Write a note on: (a) Glass electrodes (b) Dropping Mercury Electrodes (DME). 4 10 min. 6
5. Spectrophotometric titration. 4 10 min. 6
6. Sample handling in IR spectroscopy. 4 10 min. 6
7. What is Fluorescence? What are the various factors affecting the fluorescence intensity? 4 10 min. 6
8. What is mass spectrum? Write its principle and different type of ions produced in that. 4 10 min. 6
9. Write a note on DSC. 4 10 min. 6
10. What is validation? Give a brief account of validation of analytical methods. 4 10 min. 6