

[LE 814]

APRIL 2014

Sub. Code: 3814

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION**THIRD YEAR****PAPER II – PHARMACEUTICAL ANALYSIS***Q.P. Code: 383814***Time: Three Hours****Maximum: 70 marks****Answer All questions****I. Elaborate on:****(2 x 20 = 40)**

1. a) With a neat labeled diagram, explain the principle and instrumentation of HPLC.
b) Write principle, stationary phase, mobile phase, development techniques and applications of paper chromatography.
2. a) Describe the theory of IR absorption.
With a neat labeled diagram, explain the instrumentation of IR spectroscopy.
Explain its applications in qualitative analysis of pharmaceuticals.
b) Write the principle involved in NMR and Mass spectroscopy.

II. Write notes on:**(10 x 3= 30)**

1. Define chromophore, auxochrome and hypsochromic shift.
2. Write the applications of DSC and DTA in Pharmaceutical Analysis.
3. Define GLP, ICH and Validation.
4. What is base peak? List the different types ions produced in mass spectra.
5. List at least three differences between TLC and HPTLC.
6. Discuss briefly about ESR and its application.
7. Write the differences between flame emission and atomic absorption spectroscopy.
8. Define electrode potential. Give example of reference and indicator electrode used in potentiometry.
9. What do you know about dropping mercury electrode?
Give any two advantages and disadvantages.
10. Write a brief note on quenching.
