[LG 814] **APRIL 2015** **Sub. Code: 3814**

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(2009-2010 Regulation)

THIRD YEAR

PAPER II – PHARMACEUTICAL ANALYSIS

Q.P. Code: 383814

Time: Three Hours **Maximum: 70 marks**

Answer All questions

I. Elaborate on: **(4 x 10 = 40)**

1. With a neat labeled diagram, discuss the principle and various components of IR spectroscopy.
2. Write the principle and various carrier gases used in GLC.
   Explain working principle of any two detectors used in GLC with a neat labeled diagram.
3. Explain the principle and instrumentation of spectrofluorimeter with a neat diagram.
4. Write the theoretical aspects, indicator and reference electrodes used, methods of detecting end point in potentiometry.

II. Write notes on: **(6 x 5 = 30)**

1. State and explain fundamental laws of absorption.
   Write its deviations and reasons for the deviations.
2. What are amperometric titrations?
   Add a note on advantages and applications of amperometric titrations.
3. Write a note on DTA.
4. What is validation? Give a brief account of validation of analytical methods.
5. Describe the principle and various types of ion exchange resins used in ion exchange chromatography.
6. Explain the principle involved in mass spectroscopy.
   List the various types of ions produced in mass spectrum.

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