## PHARM. D DEGREE EXAMINATION (2009-2010 Regulation) THIRD YEAR PAPER II – PHARMACEUTICAL ANALYSIS

Q.P. Code: 383814

Time: Three hours Maximum: 70 marks

I. Elaborate on :  $(4 \times 10 = 40)$ 

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:  $(6 \times 5 = 30)$ 

- 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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