FEBRUARY 2011

[KY 740] **Sub. Code : 4231**

SECOND B.Pharm. DEGREE EXAMINATION.

(Regulation 2004)

(Candidates admitted from 2004-2005 and 2009-2010 Lateral Entry Batch)

Paper II — PHARM ANALYSIS AND PHYSICAL CHEMISTRY

Q.P. Code : 564231

Time : Three hours **Maximum : 90 marks**

Answer Part I and Part II Separately.

PART I

(PHARMACEUTICAL ANALYSIS)

I. Essay Questions :

Answer any ONE questions. **(1 x 20 = 20)**

1. (a) Write the principles involved in the Law of Mass action and Henderson Hasselbalch equation and give suitable examples.
   (b) Explain Buffer solutions and theories of indicators.

2. (a) Discuss about the Diasotization titration reactions and indicators used for this titrations.
   (b) Write a methodology of different steps involved in Gravimetric analysis.

II. Write short notes :

Answer any FOUR questions. **(4 x 5 = 20)**

1. Write a note on Standardization of perchloric acid.
2. Explain complexometric titrations.
3. Explain the mechanism involved in the oxidation reduction titrations.
4. Give an account on ionic product of water.
5. Write a now on Volhards and Mohrs Methods.

III. Short Answers :

Answer any TWO questions. **(2 x 2.5 = 5)**

1. Define the term common ion effect.
2. Chelating agent.
3. PM indicators.

(PTO)

PART II

(PHYSICAL CHEMISTRY)

I. Essay questions :

Answer any ONE questions. **(1 x 20 = 20)**

1. (a) Define and explain the various types of colligative properties and the methods used for determining the elevation of boiling point.

   (b) Define Osmotic pressure. Write the Methods of determinations and its applications.

2. (a) Define the term adsorption and write the uses of adsorption in analysis.

   (b) Explain the methods used to measure the adsorption capacity adsorbents and factors influencing adsorption.

II. Write short notes :

Answer any FOUR questions. **(4 x 5 = 20)**

1. Write briefly about liquid solutions.
2. Explain the uses of gas solid solutions.
3. Discuss about Phase rule.
4. Define and explain Hess Law of constant Heat of summation.
5. Briefly describe the second law of Thermodynamics.

III. Short Answers :

Answer any TWO questions. **(2 x 2.5 = 5)**

1. Partition coefficient.
2. Ideal solution.
3. Joule Thomson Effect.

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