

[KX 740]

September 2010

Sub. Code: 4231

**SECOND B.PHARM. DEGREE EXAMINATION
(Regulation 2004) Candidates Admitted from 2004-05
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 question. (1 X 20 = 20)

1. a) Explain the theory of complexometric titration. What are the different types of complexometric titration.
b) Discuss the importance of buffer in complexometric titration.
2. a) Write a methodology of different steps involved in Gravimetric analysis.
b) Explain co-precipitation and post precipitation.

II. Write Short Notes : Answer any FOUR questions. (4X 5 = 20)

1. Write a note on oxygen flask method.
2. Explain the laws of mass action.
3. Write the mechanism involved in diazotization reaction.
4. Give an account on Neutralization curve.
5. Write notes on Non-aqueous titration.

III. Short Answers: Answer any TWO questions. (2X2.5 = 5)

1. Define Iodimetry
2. Redox potential.
3. Chelating agents.

PART II

(PHYSICAL CHEMISTRY)

I. Essay Questions : Answer any ONE question. (1 X 20 = 20)

1. a) State phase rule. Explain the various terms involved in it and write its application.
b) Explain in detail about Joule – Thomson effect.
2. a) State and explain second law of Thermodynamics.
b) Describe the Carnot cycle in detail.

II. Write Short Notes : Answer any FOUR questions. (4X 5 = 20)

1. Explain Hess's law of constant heat summation and explain some of its application.
2. Write a note on Freundlich adsorption isotherm.
3. Explain the theory of partition coefficient with limitation.
4. Write notes on ideal solution.
5. What is adsorption? Discuss the factors influencing adsorption.

III. Short Answers: Answer any TWO questions. (2X2.5 = 5)

1. Define heat of combustion.
2. Vant-hoff equation.
3. Enthalpy of a reaction.
