

August 2008

[KT 740]

Sub. Code : 4231

SECOND B.Pharm. DEGREE EXAMINATION.

(Regulations 2004)

Paper II — PHARM ANALYSIS AND PHYSICAL  
CHEMISTRY

Q.P. Code 564241

Time : Three hours

Maximum : 90 marks

Answer Part I and Part II Separately.

PART I

(PHARMACEUTICAL ANALYSIS)

SECTION A

I. Long Essay : (1 × 20 = 20)

Write any ONE question.

1. (a) Explain the theory of acid-base indicators. (10)
- (b) Write notes on masking and demasking agents. (10)

2. (a) Explain the theory of Redox titration. (10)
- (b) Write notes on modified volhards method. (5)
- (c) What are the factors which affect solubility of precipitate? (5)

SECTION B

II. Short notes : (4 × 5 = 20)

Answer any FOUR questions.

- (1) Write notes on non-aqueous solvents.
- (2) Discuss the estimation of nitrogen by kjeldhal method.
- (3) Give any two methods to minimisation of errors.
- (4) Write notes on co-precipitation and post precipitation.
- (5) Write notes on dead stop end point.

SECTION C

III. Short answers : (2 × 2½ = 5)

Answer any TWO questions.

- (1) Define Iodine value.
- (2) What is Gay lussac star method?
- (3) Define Redox potnetial.

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PART II

(PHYSICAL CHEMISTRY)

SECTION A

I. Long Essay : (1 × 20 = 20)

Answer any ONE question.

1. (a) Define the term colligative properties. (5)  
(b) State Raoult's law. (5)  
(c) How is the molecular mass of a soluble determined from elevation of boiling point? (10)
2. (a) State second law of thermodynamics. (5)  
(b) Describe Carnot's theorem. (15)

SECTION B

II. Short notes : (4 × 5 = 20)

Answer any FOUR questions.

- (1) Explain the partition coefficient with limitation.
- (2) Write notes on Hess law of heat of summation.

(3) What are the factors which affect the rate of chemical reaction?

(4) Write note on molar heat capacity.

(5) Write notes on abnormal molecular weight of electrolytes.

SECTION C

III. Short answers : (2 × 2½ = 5)

Answer any TWO questions.

- (1) Define Entropy.
  - (2) What is absorption?
  - (3) Define order of reaction.
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