[LC 4257] FEBRUARY 2013 Sub. Code: 4257

SECOND YEAR B.PHARM. EXAM

Paper II – PHARMACEUTICAL ANALYSIS AND PHYSICAL CHEMISTRY

Q.P. Code : 564257

Time : Three hours **Maximum: 100 Marks**

(180 Min)

Answer Section A and B in SEPARATE Answer Book.

SECTION – A
(PHARMACEUTICAL ANALYSIS)

I. Elaborate on: **(2x10=20 marks)**

1. a) Explain the different types of complexometric titrations by using various titrants with suitable examples.
   b) Masking and demasking agents in complexometric titrations.

II. Write notes on: **(4x5=20 marks)**

1. Write the importance of quality control of drugs.
2. Write a note on kjeldhal method of nitrogen estimation.
3. Define co-precipitation and post precipitation. Give notes on various step involved in Gravimetric analysis.
4. Give the Henderson- Hasselbalch equation.

III. Short Answers: **(5x2=10 marks)**

1. Werner's co-ordination numbe
2. Define common ion effect.
3. Give some examples of oxidizing and reducing agents.
4. Define Redox potential.
5. Define Accuracy.

SECTION – B
(PHYSICAL CHEMISTRY)

I. Elaborate on: **(2x10=20 marks)**

1. a) Explain the Second law of Thermodynamics.
   b) Explain in detail about the Joule-Thomson effect.

II. Write notes on: **(4x5=20 marks)**

1. Explain the carnots cycle.
2. Define Adsorption isotherm. Explain freundlisch adsorption isotherm.
3. Write in detail about the Bomb calorimete
4. Explain the Assay of Oxygen.

III. Short Answers: **(5x2=10 marks)**

1. Define internal energy.
2. Enthalpy of a reaction.
3. Define catalyst.
4. Define ideal solutions and real solutions.
5. Define Adsorption.

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