(LN 4257) **AUGUST 2018** Sub. Code: 4257

B.PHARM. DEGREE EXAMINATION
SECOND YEAR
PAPER II – PHARMACEUTICAL ANALYSIS & PHYSICAL CHEMISTRY

Q.P. Code: 564257

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

Answer All Questions

SECTION-A
(PHARMACEUTICAL ANALYSIS)

I. Elaborate on: **(1 x 20 = 20)**

1. a) Explain the theory of redox titration. List out various types of redox titration based on titrant and give one example in each type.
   b) Write a note on redox potential.
   c) Classify redox indicator.

II. Write notes on: **(4 x 5 = 20)**

1. Give a note on apparatus used in Gravimetric Analysis.
2. Write the principle involved in Law of Mass Action.
3. Give the preparation and standardization and 0.1m perchloric acid.
4. Explain briefly Modified Volhard's Method.

III. Short answers on: **(5 x 2 = 10)**

1. Classify complexometric titration.
2. Define Kjeldhal Method.
3. Define Iodine Value.
4. What is Errors? Classify them.
5. Define Diazotisation titration.

SECTION-B
(PHYSICAL CHEMISTRY)

I. Elaborate on: **(1 x 20 = 20)**

1. a) Define osmosis. Explain the theories of osmosis.
   b) What is osmotic pressure? Describe the various methods to determine osmotic pressure.
   c) Relationship between osmotic pressure and vapour pressure.

II. Write notes on: **(4 x 5 = 20)**

1. Vont-hoff equation and its application.
2. Enthalpy of Neutralization.
3. State and explain Langmuir adsorption isotherm.
4. Explain Catalyst and rate of reaction.

III. Short answers on: **(5 x 2 = 10)**

1. Define Rate constant.
2. Define Optical activity.
3. Define Molar refraction.
4. State Raoult's law.
5. State Zeroth Law of Thermodynamics.

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