



(LQ 4257)

**FEBRUARY 2020**

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) What is the underlying principle of Complexometric titration? Explain different types of Complexometric titration with suitable example.
- b) What is masking and demasking agents with reference to complexometric titration. Give specific examples to justify your statements.

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

1. Solvent used in non-aqueous titration.
2. Fajans method.
3. Kjeldahl method of nitrogen estimation.
4. Saponification value.

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

1. Gasometry.
2. Redox indicator.
3. Neutralization curve.
4. Organic precipitant.
5. Precision.

**SECTION-B****(PHYSICAL CHEMISTRY)****I. Elaborate on:****(1 x 20 = 20)**

1. a) Define Debye-Huckel theory. What are different types of solution give examples.
- b) Explain about Raoult's Law and its limitations.

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

1. Joule-Thomson effect.
2. Bomb calorimeter.
3. Freundlich Adsorption Isotherm.
4. Refractometry.

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

1. Order of reaction.
2. Biocatalyst.
3. First Law of thermodynamics.
4. Exothermic reaction.
5. Partition coefficient.

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