



(LI 4257)

FEBRUARY 2016

Sub. Code: 4257

**B.PHARM. 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. Essay: (2 x 10 = 20)

1. a) Explain in detail about different types of complexometric titrations with examples.
- b) What are the different indicators used in complexometric titrations? Explain the use of Masking and Demasking agents.

II. Short notes: (4 x 5 = 20)

1. Write a note on diazotization titration.
2. Explain how you will determine calcium by gravimetric analysis.
3. Explain the various solvents used in nonaqueous titration.
4. Illustrate with reaction and examples, the principle involved in Volhard's method.

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

1. Define significant figure.
2. State law of mass action.
3. Explain the theory of redox titrations.
4. Name a basic titrant and an indicator for titrating a weak acid in non aqueous titration.
5. Define buffer solution.

SECTION-B

(Physical Chemistry)

I. Essay: (2 x 10 = 20)

1. a) Define order of reaction, molecularity, Rate of Reaction and Rate constant.
- b) Explain the various methods of determining order of reaction.

II. Short notes: (4 x 5 = 20)

1. Define solution. List out the type of solutions with examples.
2. Define internal energy and enthalpy. Write the relationship between ΔH and ΔE .
3. Explain the following
 - a) Enthalpy of precipitation
 - b) Concept of activation energy.
4. Explain the theories of reaction rate.

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

1. Define enzyme catalyst.
2. What is exothermic and endothermic reaction?
3. Define adsorption isotherm.
4. Define zero entropy.
5. Define specific rotation.
