



(LM 4257)

FEBRUARY 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) What is Non-Aqueous Titration? Write the types of solvents used in Non-Aqueous Titration with examples?
b) Explain in detail about neutralization curve in acid base titration.

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

1. What is argentometric titration? Explain briefly Mohr's method.
2. Write the preparation and standardization of potassium permanganate.
3. Explain the theories of acid-base indicators.
4. Give the principle and procedure behind Kjeldahl method of nitrogen estimation.

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

1. Define buffer capacity.
2. Define acid value. What is its importance?
3. What are chelating agents?
4. What is co-precipitation and post precipitation?
5. What is solubility product?

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

1. Define rate of reaction. Give a detailed account of the theories of reaction rates.

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

1. State and explain Joule-Thomson effect.
2. Define enthalpy of combustion. With a neat labeled diagram explain the working of bomb calorimeter.
3. Write short notes on adsorption isotherms.
4. Explain the principle and working of refractometer.

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

1. Define phase transfer catalyst and give examples.
2. What is ideal solution? Write any two characteristics of an ideal solution.
3. Lavoisier- Laplace law.
4. Define molar heat capacity and give its unit.
5. What is plane polarized light?

