

[BPHARM 0122]

JANUARY 2022
(AUGUST 2021 EXAM SESSION)**Sub. Code: 4257**

B.PHARMACY DEGREE COURSE (NON-SEMESTER EXAMINATIONS)
SECOND YEAR (Regulation 2009-2010)
PAPER II – PHARMACEUTICAL ANALYSIS & PHYSICAL CHEMISTRY
Q.P. Code: 564257

Time: Three hours**Answer ALL questions****Maximum: 100 Marks**

SECTION-A
(PHARMACEUTICAL ANALYSIS)

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

1. a) Explain briefly about various steps involved in gravimetric analysis by illustrating the determination of Magnesium as magnesium pyrophosphate.
- b) Discuss about various methods of end point detection in Complexometric titrations.

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

1. Discuss briefly on Henderson-Hasselbalch equation.
2. Brief out on the types of Errors.
3. Illustrate the preparation and standardization of tetrabutyl ammonium hydroxide.
4. Write a note on redox indicators.

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

1. Accuracy & Precision.
2. Leveling effect.
3. Diazotization titration.
4. Acid value & Iodine value.
5. Mercurimetric titration.

SECTION-B
(PHYSICAL CHEMISTRY)

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

1. a) Define order of reaction. Explain various methods for determining the order of reaction.
- b) Elaborate briefly on the Principle, Instrumentation and Applications of polarimete

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

1. Define solution. Write a note on the types of Solution.
2. Describe the working of a Carnot cycle.
3. Explain Hess's law of constant heat of summation.
4. Write a note on phase transfer catalysts.

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

1. Ideal and real solutions.
2. Enthalpy of combustion.
3. Types of adsorption isotherms.
4. Enzyme catalysts.
5. Concept of activation energy.