[BPHARM 0522]   **MAY 2022**   Sub. Code: 4257
(FEBRUARY 2022 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION
SECOND YEAR – (NON-SEMESTER)
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 the theory of Neutralization titrations. List out and explain various concepts of acid and base with examples.
      b) Discuss about Henderson – Hasselbalch equation.

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

   1. Discuss briefly on Common Ion effect and its application.
   2. Brief out on the types of Errors.
   3. Argentiometric titration.
   4. Analysis of oils, fats and waxes.

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

   1. Accuracy & Precision.
   2. Oxygen flask combustion.
   3. Iodimetry.
   4. Co- Precipitation.
   5. Masking and Demasking agents.

SECTION-B
(PHYSICAL CHEMISTRY)

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

   1. a) Explain about colligative properties of solutions with examples.
      b) Discuss about Henry's law.

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

   1. Heat of reaction.
   2. Describe the working of a Carnot cycle.
   3. Determination method of orders of reaction.
   4. Write a note on phase transfer catalysts.

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

   1. Entropy.
   2. Refractive index.
   3. Velocity constant.
   4. Enzyme catalysts.
   5. Third law of Thermodynamics.

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