(LL 4257)   **AUGUST 2017**   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. What is Argentimetric titration? Give a detailed account of different methods of argentimetric titration.

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

1. Explain gasometric method for the assay of oxygen.
2. Write the preparation and standardization of cerric ammonium sulphate.
3. Explain the procedure adopted for calibration of burette and pipette.
4. Explain the principle and procedure involved in the assay of calcium gluconate.

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

1. Define significant figure.
2. Define saponification value. What is its importance?
3. What is common ion effect?
4. What is leveling effect?
5. What is gravimetric analysis?

SECTION-B
(PHYSICAL CHEMISTRY)

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

1. a) Define catalyst and briefly explain the types of catalyst. Write the important characteristics of a catalyst.
   b) Explain the theories of catalysis with mechanism.

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

1. What is Phase Rule? With the help of a phase diagram explain one component system.
2. State and derive Raoult's law.
3. Define adsorption. Explain the factors affecting adsorption.
4. Define order of reaction. Write any two methods for determination of order of reaction.

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

1. Define enthalpy of combustion.
2. What is adiabatic system?
3. Nernst's distribution law.
4. What are complex reactions?
5. What is the acid-base concept according to Lewis theory?

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