(LE 4257)   **FEBRUARY 2014**   **Sub. Code: 4257**

SECOND YEAR B.PHARM. EXAM
PAPER II – PHARMACEUTICAL ANALYSIS & PHYSICAL
CHEMISTRY

Q.P. Code: 564257

Time: Three Hours   **Maximum: 100 marks**

Answer All Questions
Answer Section-A and B in separate Answer Book
SECTION-A
(Pharmaceutical Analysis)

I. Elaborate on: **(1 x 20 =20)**
1. a) Explain the various types of solvents used in Non – aqueous titration.
   b) Write in detail about preparation and standardisation of acetous perchloric acid including the precautions to be taken.

II. Write Notes on: **(4 x 5 =20)**
1. Write notes on Modified Volhard's metho
2. Explain choice of indicators in acid – base titrations.
3. Give an account on the preparation and standardisation of cerric ammonium sulphate.
4. Write notes on pM indicators.

III. Short Answers: **(5 x 2 =10)**
1. Define redox potential.
2. What is Lewis theory of acids and bases?
3. Define saponification value.
4. What is iodometry?.
5. Define normality and molarity.

SECTION-B
(Physical Chemistry)

I. Elaborate on: **(1 x 20 =20)**
1. a) Define order of reaction. Explain the various methods for determining the order of reaction.
   b) State and explain First Law of Thermodynamics

II. Write Notes on: **(4 x 5 =20)**
1. Write a note on characteristics of catalyst.
2. State Raoult's law.
3. Calculate the half life of first order reaction.
4. Explain Partition co-efficient with limitation.

III. Short Answers: **(5 x 2 =10)**
1. What is Parachor?
2. Define Eutectic point.
3. What are Positive and Negative Catalysts?
4. Define Triple Point.
5. Define Enthalpy of formation.