(LJ 4257) **AUGUST 2016** Sub. Code: 4257

B.PHARM. 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. Essay: **(1 x 20 = 20)**

1. a) Explain the principle of Non Aqueous Titrations.
   b) Write in detail about the preparation, standardization of perchloric acid and assay of any one weak base estimated by non-aqueous titration.

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

1. Briefly explain the preparation and standardization of cerric ammonium sulphate solution.
2. Write a note on calibration of volumetric apparatus.
3. Explain neutralization curves with examples.
4. Briefly explain the various types of complexometric titrations with examples.

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

1. Define pH and write Henderson-Hasselbalch equation.
2. Define common ion effect.
3. Define redox potential.
4. Define saponification value.
5. Define co-precipitation and post precipitation.

SECTION-B
(PHYSICAL CHEMISTRY)

I. Essay: **(1 x 20 = 20)**

1. Explain in detail the Carnot theorem.

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

1. State and explain Hess's law of constant heat summation.
2. Explain the principle and instrumentation of polarimete
3. Explain partition coefficient with example.
4. Define adsorption and explain Freundlich adsorption isotherm.

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

1. Define refractive index.
2. Define homogenous and heterogeneous catalyst.
3. Define molecularity of reaction.
4. Define enthalpy of neutralization.
5. What is phase rule?

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