Subject Code: B13202/R13

## I B. Pharmacy II Semester Supplementary Examinations Feb. - 2015 PHYSICAL PHARMACY-I

Time: 3 hours Max. Marks: 70

Question Paper Consists of **Part-A** and **Part-B**Answering the question in **Part-A** is Compulsory,
Three Questions should be answered from **Part-B**\*\*\*\*\*

## **PART-A**

- 1. (a) Write about mesophase.
  - (b) What is thermochemistry?
  - (c) Briefly explain dipole moment.
  - (d) What is mole percent?
  - (e) Define and explain reference state.
  - (f) Discuss briefly the preparation of pharmaceutical buffer solutions

[4+4+4+3+3+4

## PART -B

2. Define and explain phase rule for one component systems and eutectic mixtures.

[16]

3. State and explain the first and second law of thermodynamics.

[16]

4. Explain in detail dielectric constant induced polarization and dipole moment.

[16]

- 5. (a) Derive Raoult's law and discuss its limitations.
  - (b) Explain in detail isopiestic method.

[10+6]

6. Discuss in detail the van't Hoff theory of solutions.

[16]

- 7. (a) Write in detail buffer action mechanisms.
  - (b) Derive and explain buffer equation.

[8+8]

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