Code No: B1107/R10 **R10**

I B.Pharmacy I Semester Supplementary Examinations, Feb/Mar 2014
PHYSICAL PHARMACY-I

Time: 3 hours **Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the process of vaporization of liquids. Describe the two & phase diagram. [15]

2. (a) What are Miller indices? Illustrate their use and applications.
   (b) Explain the term 'pseudomorphism' with suitable examples. [8+7]

3. Explain and derive an expression for the maximum work done when an ideal gas expands isothermally and reversibly. [15]

4. The heat of neutralization of NaoH by HNO3 is -57.33 MJ/kmol. Calculate the amount of heat liberated when $500cm^3$ of 1.0N NaoH solution exactly neutralized. [15]

5. (a) Define and write the pharmaceutical significance of Optical rotation and Optical rotatory dispersion.
   (b) Define refractive index and mention its significance in pharmacy. [8+7]

6. (a) Explain the method of determination of Optical activity.
   (b) Write a note on Induced Dipole moment. [8+7]

7. (a) Write a note on Dalton's law.
   (b) Explain how Lowering of Vapour pressure is measured? [7+8]

8. (a) Explain Beckmann's method for the determination of Freezing point depression.
   (b) What are the causes for negative and positive deviation from Raoult's law for solutions? Explain with suitable examples. [7+8]

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