

B. Pharm. (First Semester)
EXAMINATION, Dec., 2011

(Grading/Non-Grading)

PHARMACEUTICAL CHEMISTRY – I

(Physical Chemistry)

(PY –104)

Time : Three Hours

Maximum Marks : 70

Note : Attempt any *five* questions. All questions carry equal marks.

1. Define the term enthalpy and entropy. Discuss first law of thermodynamics.
2. Discuss the law of chemical equilibrium and factors affecting chemical equilibrium.
3. What is order of reaction ? Add a note on molecularity vs order.
4. Explain the phase rule. Discuss the phase diagram of a one-component system.
5. Differentiate between physical and chemical adsorption. Describe the factors affecting adsorption.
6. Discuss the kinetic theory of gases. Add a note on real gases and deviation from ideal behaviour.

7. What are colligative properties ? Give an account of lowering of vapour pressure and Raoult's law.
8. Write notes on any *two* of the following :
 - (a) Bragg's law
 - (b) Debye-Huckel theory
 - (c) Schrödinger equation

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