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Roll No.

PY-104

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B. Pharm. (First Semester) EXAMINATION, June, 2008

PHARMACEUTICAL CHEMISTRY-I

(Physical Chemistry)

(PY-104)

Time : Three Hours

Maximum Marks : 70

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

1. (a) What is an ideal gas ? Write the ideal gas equation and give the units for each term in the equation.
(b) Explain the deviation of ideal behaviour of gases.
2. (a) Describe the intermolecular forces involved in liquids.
(b) How will you measure viscosity of a compound ? Explain.
3. (a) Write exhaustive note on application of partition coefficient in pharmacy.
(b) What is pH ? Explain.
4. (a) Write the equation relating to the half life of a first order reaction to the rate constant. How does it differ from that of a second order reaction ?

5. (a) Define the following :

- (i) Enthalpy
- (ii) Entropy
- (iii) Free energy

- (b) Define Hess's Law with an example, the usefulness of Hess's law in thermochemistry.

6. Explain Langmuir theory of adsorption.

7. (a) Are enzyme catalysed reactions example of homogeneous or heterogeneous catalysis ? Explain.

- (b) What is quantum mechanics ? Explain.

8. Write notes on the following :

- (a) Surface tension
- (b) Jablonski diagram

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