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Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.-2)
PHARMACEUTICAL CHEMISTRY-II (Physical Chemistry)
Subject Code : BPHM-202
M.Code : 46212

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **FIFTEEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **FOUR** questions carrying **TEN** marks each and students have to attempt any **THREE** questions.

SECTION-A**1. Explain in brief :**

- a) What is Boyle's law?
- b) Explain the term liquid state.
- c) Define the term order of reaction. What are its units?
- d) Define complex reactions.
- e) What are ideal and non-ideal solutions?
- f) What is osmotic pressure?
- g) Define viscosity.
- h) Define surface tension.
- i) Explain quantum efficiency.
- j) Define dipole moment. Mention dipole moment of carbon dioxide.
- k) Explain enzyme catalysis.

- 1) What is parachor?
- m) What is Schrodinger wave equation?
- n) Define quantum mechanics.
- o) What are thermodynamics?

SECTION-B

- 2. Write detailed note on theories of reaction.
- 3. Explain the terms optical rotation and partition coefficients with suitable examples.
- 4. Define homogenous catalysis? Give three examples of homogeneous catalysis each in gaseous phase.
- 5. Define the term order of reaction. How does rate law different from law of mass action?
- 6. Give five postulates of quantum mechanics.

SECTION-C

- 7. Starting from basic postulates of kinetic theory of gases. Derive kinetic gas equation.
- 8. Write Michealis-Menten equation. Explain the symbol used. How can maximum velocity determined?
- 9. What are consequences of light absorption? Discuss in detail Jablonski diagram.
- 10. Discuss Freundlich and Gibbs adsorption. What is Langmuir theory of adsorption?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.