Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 24

B.Pharma (2012 to 2016) (Sem.–2)

PHARMACEUTICAL CHEMISTRY-II (Physical Chemistry)

Subject Code : BPHM-202

M.Code : 46212

Time : 3 Hrs. Max. Marks : 80

INSTRUCTIONS 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

Explain in brief :

1. Ideal gas equation
2. Define and give example of Additive properties
3. Refractive Index
4. Partition Coefficient and its significance
5. Colligative properties
6. Open and closed system
7. Define and give unit of Dipole moment
8. Beer Lambert Law
9. Example of homogenous catalysis
10. Surroundings
11. Characteristic features of catalyst

12. Define Phase Rule

13. Activation energy

14. Write the exponential form of Arrhenius equation

15. Zero order reactions

SECTION-B

16. Discuss the applications of viscosity in structure elucidation.

17. Explain the PV isotherm of Carbon dioxide.

18. Define first Law of Thermodynamics what are its limitations?

19. What is the heat capacity at constant volume and pressure? Drive the relation between two.

20. Describe the postulates of quantum mechanics.

SECTION-C

21. What are real gases and why do they deviate from ideal behavior? Derive the expression for Vander Waal's Gas equation.

22. Define, derive an expression and discuss all the important characteristic features including graphs w.r.t. first order reaction with suitable example.

23. Explain why work done in adiabatic expansion is less than the work done in isothermal expansion?

24. Derive the Schrodinger wave equation using various postulates of Quantum Mechanics.