

Roll No.

Total No. of Pages : 02

Total No. of Questions : 22

B.Pharma (2017 & Onward) (Sem.-3)
PHYSICAL PHARMACEUTICS-I
Subject Code : BP-302T
M.Code : 75106

Time : 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

Define briefly :

1. What are semi-polar solvents? Give two examples.
2. What is meant by salting out?
3. What are chelates? Give two examples.
4. What is spreading coefficient?
5. What is maximum buffer capacity?
6. Define 'sodium chloride equivalent'.
7. What is meant by contact angle and how is it related to wetting of solids?
8. Differentiate between physical adsorption and chemisorption.
9. What is glass transition temperature?
10. What is dipole moment and its significance?

SECTION-B

11. Enumerate the factors influencing solubility of gases in liquids. Briefly discuss each factor with suitable examples.
12. Discuss the method of continuous variation employing dielectric constant for determining the stoichiometric ratio in a complex.
13. Discuss adsorbent - adsorbate interaction at solid-gas interface and explain the adsorption isotherms.

SECTION-C

14. Write a note on influence of buffer capacity and pH on tissues.
15. How much sodium chloride should be added to 100 ml of a solution containing 1% w/v of apomorphine hydrochloride to be rendered isotonic with serum? (Given : Freezing point depression of 1% w/v solution of apomorphine hydrochloride is 0.08).
16. What are eutectics? Give examples of such substances and explain a typical phase diagram for such systems.
17. Explain hydrophobic interaction and its significance.
18. Write a note on surface free energy.
19. What is association constant? Write a note on it and explain its significance.
20. What are liquid crystals and what are their applications?
21. Summarize the application of diffusion in drug absorption.
22. What are aerosols? Give an account of propellants and their properties desired for use in aerosol dosage forms.

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.