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 students have to attempt any TWO questions.**
3. **SECTION-C contains NINE questions carrying FIVE marks each and students have to attempt any SEVEN questions.**

SECTION-A

Define briefly :

1. Define Spreading Coefficient.
2. Define Surface Free Energy.
3. How is adsorption different from absorption?
4. What is critical micelle concentration?
5. What is meant by surface excess?
6. How are degrees of freedom calculated?
7. What do you mean by triple point of water?
8. Define Solubility.
9. Define Contact angle.
10. What are chelates?

SECTION-B

11. Draw and explain Phase diagram of water?

12. What is interfacial tension? How is it determined?

13. Draw various adsorption isotherms and explain their behaviour?

SECTION-C

14. Define HLB. Explain the Griffin scale of HLB?

15. Explain various types of metal ion complexes with suitable examples.

16. Write a note on protein binding.

17. Derive expression for spreading coefficient.

18. Describe the factors which influence solubility of drugs.

19. Explain any one method for analysis of complexation.

20. What is critical solution temperature? What is its application?

21. Describe the applications of buffers in pharmaceutical systems.

22. Explain the determination of pH of a solution electrometrically.

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.