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Total No. of Pages : 02

Total No. of Questions : 13

**B.Pharma (Sem.-3)**  
**PHYSICAL PHARMACEUTICS-I**

Subject Code : BP-302T

M.Code : 93324

Date of Examination : 14-01-23

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**

**1. Define briefly :**

- a) What do you mean by physical pharmaceutics?
- b) How chemical kinetics helps in stability?
- c) What do you know about Raoult's law?
- d) What is the relative humidity?
- e) Define glassy state.
- f) What is the refractive index.
- g) Discuss the detergency.
- h) Define buffer.
- i) What is complexation?
- j) Describe protein binding.

### **SECTION-B**

2. Give a note on solubility expression.
3. Discuss the complete note on the physiochemical properties of the drug entity.
4. Write a comment on the measurement of surface and interfacial tensions.

### **SECTION-C**

5. Give a detailed note on the detergency with an example.
6. Discuss in detail aerosols.
7. What is the various role of buffers in the pharma sector?
8. Elaborate on the scale of HLB.
9. Discuss the various necessary aspects for stability.
10. Comment on partially miscible liquids.
11. Justify the solubility of a gas in the liquid.
12. What are optical rotations?
13. Mention for absorption at the solid interface.

**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.**