

[Total No. of Questions - 18] [Total No. of Printed Pages - 2]
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B. Pharmacy 3rd Semester Examination

Physical Pharmacy-I (N.S.)

BP-233

Time : 3 Hours

Max. Marks : 70

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt any *Two* questions from Section A and *Eight* questions from Section B. Section C is compulsory.

SECTION - A

1. What are different states of matter? Discuss solid state in detail.
2. Describe colligative properties of the solutions in detail. How are they determined?
3. Discuss buffered isotonic solutions in detail. How tonicity is measured? **(10×2=20)**

SECTION - B

4. Give structure & properties of liquid crystals.
5. Discuss role of thermal analysis in characterization of pharmaceutical compounds.
6. Give third law of thermodynamics.
7. Discuss properties of solutions.
8. Write Debye-Huckel theory.
9. Give methods for adjustment of tonicity.

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10. Write factors governing the rate of reaction.
11. How expiry date is determined?
12. How drugs are stabilized against chemical degradation?
13. Write a note on osmotic pressure. **(5×8=40)**

SECTION - C

14. Write a short note on aerosol inhalers.
15. Define & explain mole fraction.
16. Define half life for first order reaction.
17. Define latent heat & vapour pressure.
18. Give applications of partition coefficient. **(2×5=10)**