

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2064)

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B. Pharmacy 2nd Semester Examination
Pharmaceutics-I (Physical Pharmacy) (O.S.)
HBP-102

Time : 3 Hours

Max. Marks : 80

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 five questions in all selecting one question from Section A, B, C & D. Section E is compulsory.

SECTION - A

1. Discuss various types of particle diameters & give methods for their determination. Explain any two methods for determination of number distribution of particles. (16)
2. Describe the gaseous state of matter in detail giving its pharmaceutical applications. (16)

SECTION - B

3. Define surface & interfacial tensions. Discuss different methods for their determination. (16)
4. Define viscosity. Discuss various methods for its determination. (16)

SECTION - C

5. Give different methods for preparation of lyophobic colloids. Discuss optical properties of colloids. (16)
6. Classify organic molecular complexes & discuss nature of interaction with suitable examples. Give pharmaceutical applications of complexation. (16)

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SECTION - D

7. Discuss various methods used to establish order of reaction. Give the factors governing rate of a reaction. (16)
8. Discuss in detail the buffered isotonic solutions. How toxicity is measured & adjusted? (16)

SECTION - E

9. (a) Define porosity & give its applications.
(b) What is HLB? Give one method for its determination.
(c) Give applications of thixotropy.
(d) Classify association colloids giving examples.
(e) Differentiate chelates & inorganic metal complexes.
(f) Give applications of chemical kinetics.
(g) Discuss polymorphism.
(h) What are structured vehicles? (2×8=16)