# [Total No. of Questions - 5] [Total No. of Printed Pages - 2] (2064)

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# B. Pharmacy 4th Semester Examination Physical Pharmacy-II (N.S.) BP-243

Time: 3 Hours Max. Marks: 70

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

**Note**: Attempt any two questions from Section A and any eight questions from Section B. Section C is compulsory.

#### **SECTION - A**

- Enlist fundamental & derived properties of particles. How particle size data is analysed? Give pharmaceutical applications of particle size analysis. (10)
- 2. Classify colloids. Discuss lyophobic colloids in detail. (10)
- 3. Discuss metal & organic molecular complexes in detail. (10)

### **SECTION - B**

- 4. (a) Discuss the term detergency.
  - (b) Define & differentiate various densities.
  - (c) Enlist different methods of size analysis, discussing any one of them.
  - (d) Discuss psuedoplastic flow in detail.
  - (e) Discuss inclusion complexes.
  - (f) Give applications of protein binding.

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- (g) Compare colloidal & molecular dispersions.
- (h) How colloids are purified?
- (i) Discuss symptoms of physical instability of emulsions.
- (j) Discuss the term phase inversion. (8×5=40)

## **SECTION - C**

- 5. (a) Define wetting & give its applications.
  - (b) Define specific surface & give its applications.
  - (c) Discuss role of thixotropy in formulation.
  - (d) Give classification of complexes.
  - (e) Define & discuss structured vehicle. (5×2=10)