

B PHARM
(SEM-IV) THEORY EXAMINATION 2021-22
PHYSICAL PHARMACEUTICS-II

Time: 3 Hours

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Total Marks: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION – A

1. Attempt *all* questions in brief.

10 x 2 = 20

- a. Classify dispersed systems with examples.
- b. Define peptization with example.
- c. State the Law of Flow.
- d. State the Heckel equation and explain each term involved.
- e. State the nature of flocculated and deflocculated suspensions.
- f. Mention the advantages of micro emulsions over emulsions.
- g. Define 'cut diameter of a sieve' with suitable example.
- h. Name the parameters involved in the evaluation of flow properties of a pharmaceutical blend.
- i. What do you mean by 'pseudo-zero order kinetics'?
- j. Mention the role of dielectric constant on the chemical degradation of pharmaceutical products.

SECTION – B

2. Attempt any two of the following:

2x10 = 20

- a. Explain the effects of electrolytes, coacervation and peptization on pharmaceutical colloidal preparations.
- b. Describe in brief the various method used for the determination of particle size.
- c. Explain the roles of the various physical and chemical factors on the chemical degradation of pharmaceutical products,

SECTION – C

3. Attempt any *five* parts of the following:

7 x 5 = 35

- a. Classify colloids and compare the general properties of colloidal-dispersions.
- b. Describe the effects of thixotropy in Pharmaceutical formulations with suitable examples.
- c. Describe the theories of emulsification.
- d. State and explain the evaluation parameters used for characterization of the derived properties of powders.
- e. Explain the steps for determination of order of a chemical reaction.
- f. Mention the working principles and application of capillary, falling sphere, and rotational viscometers used for the determination of viscosity.
- g. Write a brief note on photolytic degradation of pharmaceutical preparations and its prevention.