

**BACHELOR OF PHARMACY**  
**(SEM V) THEORY EXAMINATION 2018-19**  
**PHARMACEUTICS-VI (PHARMACEUTICAL TECHNOLOGY-I)**

**Time: 3 Hours**

**Total Marks: 100**

**Note:** Attempt all Sections.

**SECTION A**

- 1. Attempt all questions in brief. 2 x 10 = 20**
- a. What do you mean by *Drenches* and *Tubings*?
  - b. Give example of polymers used for preparing *In situ gels*.
  - c. What is Syneresis of gel?
  - d. Give example of some humectants used in semi-solid preparation.
  - e. Write the equation used for describing dissolution of drug.
  - f. Write the USP classification of glass.
  - g. What is product concentrate? What are the components of product concentrate?
  - h. Write any two differences between flocculated and deflocculated suspensions.
  - i. What is Solid-Fat Index?
  - j. What do you mean by Macromelting and Micromelting point?

**SECTION B**

- 2. Attempt any three of the following: 10 x 3 = 30**
- a. Write about the significance of preformulation studies. Discuss about the methods used for bulk characterization of drug.
  - b. Discuss in detail about the evaluation of stability of a pharmaceutical suspension. What are nanosuspensions?
  - c. What are the advantages of Suppositories? Enumerate the ideal features required for a suppository base.
  - d. What are Ophthalmic preparations? Write in detail about formulation of an Ophthalmic product.
  - e. Name the components of a pharmaceutical Aerosol. What are the evaluation parameters of an Aerosol?

**SECTION C**

- 3. Attempt any one part of the following: 10 x 1 = 10**
- (a) Discuss in detail about the regulatory bodies and their guidelines for approval of animal drugs.
  - (b) What are the different semisolid bases? Discuss in detail with examples.
- 4. Attempt any one part of the following: 10 x 1 = 10**
- (a) Write in detail about the large scale manufacturing techniques of Parenteral products.
  - (b) Discuss about the stability problems of an emulsion. Add a note on the stabilization of emulsion.

- 5. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Classify Propellants according to their use. Discuss about the propellant selection with the help of different gas laws.
  - (b) What are structured vehicles? Discuss their role in controlled flocculation in suspensions. Give example of some flocculating agents.
- 6. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) What are the different studies which are performed under solubility analysis of a drug? State the significance of solubility analysis in formulation development.
  - (b) What are the different manufacturing methods of suppositories? Write about the packaging and storage of suppositories.
- 7. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Discuss in detail about the pre-filling treatments required in manufacturing of a parenteral preparation.
  - (b) What are the challenges for topical semisolid preparations? Discuss about the different chemical and physical skin permeation enhancement methods.