

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA PHARMACY YEAR-1 • EXAMINATION – WINTER - 2019

Subject Code: 410001**Date: 14/11/2019****Subject Name: Pharmaceutics - I****Time: 02:30 PM TO 05:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define novel drug delivery system. Enumerate their advantages and disadvantages. Write a short note on nano-drug delivery system. **06**
- (b) What is the significance of pharmacopoeia? Write a brief note on Indian pharmacopoeia. **05**
- (c) Write a short note on plastic as a packaging material for pharmaceutical products. **05**
- Q.2** (a) Define size reduction. Discuss the objectives of size reduction. Explain various mechanisms of size reduction. **06**
- (b) Enumerate various methods of size separation. Write short note on standards for powders. **05**
- (c) Discuss the following equipments: 1. Ball mill 2. Cyclone separator **05**
- Q.3** (a) Define mixing. Discuss the objectives of mixing. Write a short note on Colloid mill. **06**
- (b) Discuss the factors affecting rate of filtration. Write a short note on Filter aids. **05**
- (c) Define percolation. Discuss various steps involved in percolation process. **05**
- Q.4** (a) Enlist various distillation processes. Discuss various fractional columns. Differentiate between simple distillation and steam distillation. **06**
- (b) Differentiate between evaporation and drying. Discuss the theory of drying. **05**
- (c) Describe the principle, construction, working, advantages, disadvantages and applications of Fluidised bed dryer. **05**
- Q.5** (a) Define sterilization. Classify various methods of sterilization. How is sterilization different from disinfection? Write the principle of
1. Dry heat sterilization 2. Moist heat sterilization **06**
- (b) Describe the process of autoclave in detail with its applications. **05**
- (c) Write a short note on 1. Gaseous sterilization 2. Pasteurization **05**
- Q. 6** (a) Discuss in detail various quality control tests for tablet dosage form. **06**
- (b) Discuss the formulation of tablets in detail. **05**
- (c) Write a short note on tablet coating. Differentiate between wet granulation and dry granulation. **05**
- Q.7** (a) Define capsule dosage form. Give the composition of hard gelatin capsule shell. List various size gradations of capsules. **06**
- (b) Write a short note on Rotary die process. **05**
- (c) Write a short note on immunological products. Differentiate between active immunity and passive immunity. **05**