

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER– IV • EXAMINATION –Summer -2021

Subject Code: Physical Pharmaceutics II**Date:05/08/2021****Subject Name: BP403TP****Time:10:30am to 01:30pm****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) | Discuss features and properties of different types of colloidal dispersion. | 06 |
| | (b) | What are association colloids? Mention the mechanism of formation of micelles. | 05 |
| | (c) | Explain Protective colloids. | 05 |
| Q.2 | (a) | Define Rheology; Give the application of rheology in pharmacy. | 06 |
| | (b) | Explain the Plastic and Pseudoplastic flow curves with examples. | 05 |
| | (c) | Classify various viscometers. Describe a viscometer to find out viscosity of Non-Newtonian fluids with labeled diagram. | 05 |
| Q.3 | (a) | Differentiate hydrophilic and lipophilic colloids. | 06 |
| | (b) | Describe thixotrophy and negative thixotrophy. How to evaluate the thixotrophy. | 05 |
| | (c) | Give a short note on rotational viscometers. | 05 |
| Q.4 | (a) | Write a note on physical stability of emulsion. | 06 |
| | (b) | Give a short note multiple emulsions. | 05 |
| | (c) | Write a brief note on electric properties of interfaces. | 05 |
| Q.5 | (a) | Enlist the methods for particle size determination. Explain conductivity Method. | 06 |
| | (b) | Discuss the derived properties of powder. | 05 |
| | (c) | Explain methods for determining surface area. | 05 |
| Q.6 | (a) | What is meant by controlled flocculation? Discuss the various means by which controlled flocculation can be achieved? | 06 |
| | (b) | Give the difference between flocculated and deflocculated suspensions. | 05 |
| | (c) | Define Drug Stability and give its importance in Pharmaceutical field. | 05 |
| Q.7 | (a) | Enumerate types of chemical degradation and explain Hydrolysis in detail. | 06 |
| | (b) | Give a short note on Accelerated stability testing. | 05 |
| | (c) | Explain Photolytic degradation and its prevention | 05 |
