Seat No.: _____ Enrolment No. _____

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**

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