

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM SEMESTER-IV- EXAMINATION – WINTER 2021

Subject code: BP403TP**Date: 19/02/2022****Subject Name: Physical Pharmaceutics-II****Time: 02:30PM to 05:30PM****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) Describe the kinetic properties of colloids.	06
	(b) Write short note on association colloids.	05
	(c) Define Schulze rule. What are its applications?	05
Q.2	(a) Explain non-Newtonian type of flow with rheograms.	06
	(b) Write the concept of viscosity.	05
	(c) Define: Fluidity, Kinematic viscosity, Thixotropy, Rheopexy and Bulges.	05
Q.3	(a) Classify and describe the types of emulsions with suitable examples.	06
	(b) Differentiate flocculated and deflocculated suspensions.	05
	(c) Explain sedimentation volume ratio.	05
Q.4	(a) Enumerate the derived properties of powder and explain Angle of repose.	06
	(b) Give the application of micromeritics in pharmacy.	05
	(c) Define: surface diameter, stokes diameter, arithmetic mean carr's index and porosity.	05
Q.5	(a) Enumerate the factors affecting rate of reaction and explain temperature.	06
	(b) Differentiate order of reaction and molecularity.	05
	(c) Derive the first order rate of reaction equation.	05
Q. 6	(a) Give the principle, working and applications of cup and bob viscometer with clean and neat diagram.	06
	(b) Explain different stages of instability of emulsions.	05
	(c) Write a note on accelerated stability testing in brief.	05
Q. 7	(a) Explain sensitization and protective colloidal action.	06
	(b) Explain the working principle of coulter counter with labeled diagram.	05
	(c) What is hydrolysis? Write the preventive measures of it.	05
