

GUJARAT TECHNOLOGICAL UNIVERSITY
BPHARM – SEMESTER I • EXAMINATION – SUMMER - 2013

Subject code: 220006**Date: 07-06-2013****Subject Name: Physical Pharmacy****Time: 02:30 pm to 05:30 pm****Total Marks: 70****Instructions:**

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

Q.1	(a) Discuss two component system containing liquid phases.	06
	(b) Explain any two Binding forces between molecules.	05
	(c) Write a note on Aerosols.	05
Q.2	(a) Write a note on pharmaceutical buffer.	06
	(b) What is buffer capacity? How it is calculated?	05
	(c) Write a note on application of colloids in Pharmacy.	05
Q.3	(a) Explain Ideal & Real solution. Discuss the influence of foreign substances in solubility of liquid in liquid.	06
	(b) Discuss the effect of pressure, temperature and chemical reaction for Solubility of gasses in liquids.	05
	(c) Explain the solute solvent interactions for polar and nonpolar Solvents.	05
Q.4	(a) Enumerate the different methods for determination of surface tension and discuss any one method in detail.	06
	(b) Write a note on Hydrophilic Lipophilic Balance.	05
	(c) What is Spreading coefficient? Derive its equation.	05
Q.5	(a) Explain any two kinetic properties of Colloids.	06
	(b) Define suspension & differentiate between flocculated & deflocculated suspension.	05
	(c) Write a note on Physical stability of emulsion.	05
Q. 6	(a) Enlist various methods for determination of particle size & explain any one in detail.	06
	(b) Explain Sedimentation parameters of suspension in detail.	05
	(c) Enumerate the derived properties of powder & explain any two in detail.	05
Q.7	(a) Write in detail note on Non-Newtonian systems.	06
	(b) Classify various viscometers. Describe any one viscometer with diagram.	05
	(c) Write a note on Thixotropy.	05
