

GUJARAT TECHNOLOGICAL UNIVERSITY
BPHARM – SEMESTER – II • EXAMINATION – WINTER 2012

Subject code: 220006

Date: 24-01-2013

Subject Name: Physical Pharmacy

Time: 10:30 am – 01:30 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) Discuss non-newtonian system in brief.	06
	(b) What is thixotropy? How is it measured?	05
	(c) Discuss application of rheology	05
Q.2	(a) Describe methods for measurement of particle size.	06
	(b) Give note on importance of micromeritics in pharmacy.	05
	(c) Discuss derived properties of powders.	05
Q.3	(a) Enumerate different methods for measurement of surface tension and explain any one in detail.	06
	(b) Explain HLB system.	05
	(c) Give application of surfactant.	05
Q.4	(a) What is isotonicity? How isotonicity & pH adjusted in pharmaceutical formulation	06
	(b) Write a note on pharmaceutical buffer.	05
	(c) Application of emulsion in pharmacy.	05
Q.5	(a) Write a note on polymorphism.	06
	(b) Discuss structure, properties & significance of liquid crystal.	05
	(c) Discuss two component systems containing phases giving proper examples.	05
Q. 6	(a) Give note on types of colloidal dispersion system.	06
	(b) Discuss different identification test for types of emulsion.	05
	(c) Differentiate flocculated and deflocculated suspension.	05
Q. 7	(a) Note on evaluation of suspension.	06
	(b) Explain Ostwald viscometer.	05
	(c) Discuss coulter counter.	05
