Seat No.: _____ Enrolment No._____

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**

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