

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – III • EXAMINATION – WINTER • 2014

Subject Code: 230001

Date: 19-12-2014

Subject Name: Physical Pharmaceutics-II

Time: 10:30 am - 01:30 pm

Total Marks: 80

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

Q.1	(a)	Enlist methods for determination of molecular weight and explain any one method in details.	06
	(b)	Describe the methods for determination of boiling point elevation.	05
	(c)	Write a short note on solute solvent interaction.	05
Q.2	(a)	Describe the measurement of electrolytic conductance.	06
	(b)	Explain Arrhenius Theory of electrolytes.	05
	(c)	Write a short note on Debye Huckel Theory.	05
Q.3	(a)	Define rate determining step, order of reaction and molecularity of reaction. Discuss apparent zero order reaction.	06
	(b)	Enlist various factors effects reaction rates. Discuss the influence of temperature and solvent.	05
	(c)	Describe the methods used to determine the order of a reaction.	05
Q.4	(a)	What are the various applications of complexes in pharmacy?	06
	(b)	Describe the different methods for analyzing complexes.	05
	(c)	Describe the methods for determination of protein binding.	05
Q.5	(a)	Define various types of polymers.	06
	(b)	Write Pharmaceutical applications of polymers.	05
	(c)	Enlist the different properties of polymers. Explain any one in details.	05
Q. 6	(a)	Define flux, steady state diffusion and sink condition. Discuss the factors affecting rate of dissolution.	06
	(b)	Explain Fick's first law of diffusion.	05
	(c)	Write a short note on USP dissolution test.	05
Q.7	(a)	Write a short note on accelerated stability study.	06
	(b)	Explain Faraday's Laws.	05
	(c)	State the Raoult's Laws and describe positive & negative deviations from Raoult's Laws.	05
