Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – III (OLD Syllabus) • EXAMINATION – SUMMER • 2015

Su Su	bject	Code: 230001 Date: 04-06-2015 Name: Physical Pharmaceutics-II	
Ti	me: 02 1. At 2. Ma 3. Fig	2:30 pm - 05:30 pm Total Marks: 80 tempt any five questions. ake suitable assumptions wherever necessary. gures to the right indicate full marks.	
Q.1	(a) (b) (c)	Define Raoult's law. Explain positive and negative deviations from Raoult's law. Define: Molarity, Normality, Molality, Osmolality and Vapor Pressure. Explain effect of dielectric constant on rate constant.	06 05 05
Q.2	(a) (b) (c)	Describe Arrhenius theory of electrolytic dissociation. Explain Faraday's Law. Explain Ostwald-Walker method of measuring the relative lowering of vapor pressure.	06 05 05
Q.3	(a) (b) (c)	Enumerate various methods to determine the order of reactions. Derive Michaelis-Menton equation. Enumerate factors affecting the rate of reaction. Explain effect of temperature on it. Define first order reaction. Derive equations for first order reaction and its half- life and self-life.	06 05 05
Q.4	(a) (b) (c)	Classify the complexes and explain importance of chelates in metal ion complexes. Write applications of protein binding. Write short note on inclusion complexes.	06 05 05
Q.5	(a) (b) (c)	Define Hydrogels. Classify and explain its role in drug delivery system. Enlist synthetic polymers. Discuss any two general properties of polymer solutions. Give Significance of polymers in Pharmacy.	06 05 05
Q. 6	(a) (b) (c)	What is sink condition? Discuss Steady-State Diffusion. Define dissolution. Explain dissolution apparatus as per USP method I. Explain Porosity and Tortuosity.	06 05 05
Q. 7	(a) (b) (c)	Write a short note on Accelerated stability study. Discuss various biological aspects of osmotic pressure. Write in brief on release of drug from various types of dosage forms.	06 05 05
