

GUJARAT TECHNOLOGICAL UNIVERSITY**B.Pharm SEMESTER-III • EXAMINATION – SUMMER - 2016****Subject Code: 230001****Date: 02/05/2016****Subject Name: Physical Pharmaceutics -II****Time: 2:30 PM to 5:30 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) Describe any three colligative properties of non-electrolytes in solution.	06
	(b) Discuss about concentration expressions.	05
	(c) Discuss ideal and real solutions using Raoult and Henry's laws.	05
Q.2	(a) Discuss Arrhenius theory of electrolytic dissociation.	06
	(b) Describe Wheatstone bridge method for conductance measurement.	05
	(c) Discuss coefficients for expressing colligative properties.	05
Q.3	(a) Discuss methods for the determination of order of reaction.	06
	(b) Define second order reaction. Derive equation for second order reaction.	05
	(c) Discuss accelerated stability studies.	05
Q.4	(a) Discuss applications of complexes in pharmacy.	06
	(b) Classify complexes.	05
	(c) Discuss applications of protein binding in drug activity.	05
Q.5	(a) Classify polymers with examples.	06
	(b) Discuss the general properties of polymer solutions.	05
	(c) Discuss preparations of polymer solutions.	05
Q.6	(a) Explain in short about theories of dissolution.	06
	(b) Draw neat and labeled diagram for diffusion cell.	05
	(c) Discuss USP dissolution apparatus I and II.	05
Q.7	(a) Explain Fick's second law of diffusion with its applications.	06
	(b) Discuss factors affecting rate of reaction.	05
	(c) Discuss water-soluble synthetic polymers.	05
