Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

ME- SEMESTER II - EXAMINATION - SUMMER 2015

Subje	ect (Code: 2721609 Date: 28/05/	/2015
Subject Name: Advance Kinetics & Reaction Engg Time: 2:30 PM - 5:00 PM Instructions: Total Mark		ks: 70	
insti u	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. All notations have conventional meaning.	
Q.1	(a) (b)		07 07
Q.2	(a) (b)		07 07
	(b)	011	07
Q.3	(a) (b)	Describe slurry reaction kinetics. Give industrial applications of slurry reactors	07 07
Q.3	(a) (b)		07 07
Q.4	(a)	Distinguish between bubble column reactor and agitated vessel type reactor	07
	(b)	Discuss in detail about flow regimes for a trickle bed reactor OR	07
Q.4	(a) (b)		07 07
Q.5	(a)	Derive concentration profile for a single cylindrical pore with reactant A diffusing into pore for solid catalyzed reaction of first order	07
	(b)	optimization.	07
Q.5	(a)	OR Discuss with neat sketches types of loop reactors used in chemical	07
	(b)	industry. With a neat diagram write about contacting patterns for heterogeneous reactions.	07
