Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER V • EXAMINATION – WINTER - 2012				
Subje	ct cod	le: 151301 Date: 11-01-201	3	
Subje	ct Na	me: Elements of Chemical Engineering		
_		0 pm to 05:00 pm Total Marks: 70)	
Instru		<u>-</u>		
	1. At 2. Ma	tempt all questions. ake suitable assumptions wherever necessary. gures to the right indicate full marks.		
Q.1	(a) Give the classification of types of reactions.(b) Explain the various variables affecting the rate of reactions.		07 07	
Q.2	(a) (b)	•	07 07	
	(b)	_	07	
Q.3	(a)	Discuss the various types of reactors with example.	07	
	(b)	Explain second order reaction with example. OR	07	
Q.3	(a)		07	
	(b)	1 0	07	
Q.4	(a)		07	
	(b)	Discuss temperature dependency and Arhenius Law. OR	07	
Q.4	(a)	Discuss experimental method of RTD.	07	
Q.4	(b)	Make a material balance for mix flow reactor.	07	
Q.5	(a)		07	
	(b)	Discuss single and multiple reactions in detail. OR	07	
Q.5	(a)	Write a short not on Fixed-bed reactor.	07	

(b) How to calculate activation energy? Explain in brief.

07