Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– III EXAMINATION – SUMMER 2015

Subject Code: 133601 **Date: 27/05/2015**

Subject Name: Introduction to Medicinal chemistry and Biochemistry

Time:02.30pm-05.00pm **Total Marks: 70**

Instructions:

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

Q.1	**(a)**		Write a note on various routes of drug administration.	**07**
	(b)		What is Glycolysis? Explain Glycolysis in detail with ATP synthesis.	**07**
Q.2	**(a)**	i.	Explain enzyme kinetics in detail.	**05**
		ii.	Define the term: Bacteriostatic and Bactericidal activity	**02**
	(b)		What is cell? Explain different cell organelles and their function with diagram.	**07**
			OR	
	(b)		Explain protein biosynthesis in detail.	**07**
Q.3	**(a)**		What is drug metabolism? Discuss phase-1 transformation in detail.	**07**
	(b)	i.	Write a note on oxidative phosphorylation.	**04**
		ii.	Define the term : tumour	**03**
			OR	
Q.3	**(a)**		Discuss TCA cycle in detail with diagram.	**07**
	(b)	i.	What is drug? Discuss classification of drugs according to biological activity.	**04**
		ii.	Write a short note on enzyme inhibitors.	**03**
Q.4	**(a)**		Write a short note on anti-infective agents with examples.	**07**
	(b)		Explain beta oxidation of fatty acids.	**07**
			OR	
Q.4	**(a)**		Explain SAR and mode of action of Sulfonamides.	**07**
	(b)	i.	Write a short note on role of vitamins as co-enzymes with suitable example.	**04**
		ii.	Explain key-lock model for enzymatic activity.	**03**
Q.5	**(a)**		What is Transamination? Enlist Urea cycle in detail.	**07**
	(b)	i.	Discuss structural variation of Penicillins.	**05**
		ii.	Define the terms: in vivo and in vitro activity.	**02**
			OR	
Q.5	**(a)**		Give the classification of antineoplastic agents with one example in each class.	**07**
	(b)		Write a note on drug absorption and elimination.	**07**