

GUJARAT TECHNOLOGICAL UNIVERSITY**B.Pharm - SEMESTER– III • EXAMINATION – SUMMER-2016****Subject Code: 2230003****Date: 08/05/2016****Subject Name: Pharmaceutical Chemistry – III (Biochemistry -I)****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 enzyme inhibition with suitable examples.	06
	(b)	Discuss the transport mechanism across cell membrane.	05
	(c)	What are bioenergetics? Discuss their biochemical importance.	05
Q.2	(a)	What are carbohydrates? Describe reactions of monosaccharide.	06
	(b)	Describe the structures and function of mucopolysaccharides.	05
	(c)	Define: Iodine number, Saponification number, Acid number, Rancidity, Mutarotation.	05
Q.3	(a)	Define lipids. Classify them with example.	06
	(b)	What are fatty acids? Explain the various parameters measured to check the purity of fats and oils.	05
	(c)	Write a note on triglycerides.	05
Q.4	(a)	Discuss enzyme kinetics in brief and its mechanism of action.	06
	(b)	Classify enzymes with examples.	05
	(c)	Discuss the role of enzymes in disease diagnosis and therapeutics.	05
Q.5	(a)	Describe the hexose monophosphate shunt and add a note on its significance.	06
	(b)	Discuss Glycolysis with its energetic.	05
	(c)	Discuss importance of Cori's cycle.	05
Q. 6	(a)	Write a note on TCA cycle.	06
	(b)	Describe β - oxidation of fatty acids with its energetics.	05
	(c)	Describe the structure of steroids. Write a note on the functions of Cholesterol.	05
Q.7	(a)	Explain Metals as Co-Enzymes and their Significance.	06
	(b)	Write a note on water and mineral metabolism.	05
	(c)	Describe role of hormones in blood glucose homeostasis.	05
