

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-III • EXAMINATION – SUMMER -2022

Subject Code: 2230003**Date: 06/09/2022****Subject Name: Pharmaceutical Chemistry-III (Biochemistry – I)****Time: 02:30pm to 05:30pm****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 the mechanism of enzyme action.	06
	(b) Define and classify lipids with examples. Write a note on functions of lipids.	05
	(c) Write a note on transport process across the cell membrane.	05
Q.2	(a) Define and classify carbohydrates with examples. Write a note on functions of carbohydrates.	06
	(b) Describe formation, distribution and utilization of ketone bodies.	05
	(c) Discuss importance of serum enzymes in diagnosis of disease.	05
Q.3	(a) Describe biosynthesis of palmitic acid.	06
	(b) Discuss properties of triacylglycerols.	05
	(c) Define phospholipids. Write a note on functions of phospholipids.	05
Q.4	(a) Write a note on glycolysis.	06
	(b) Discuss various factors affecting enzyme activity.	05
	(c) Write a note on sucrose.	05
Q.5	(a) Discuss synthesis of glucose from non-carbohydrate sources.	06
	(b) Discuss biochemical functions of iron. Add a note on factors affecting iron absorption.	05
	(c) Discuss reactions of monosaccharides.	05
Q.6	(a) Discuss cholesterol biosynthesis.	06
	(b) Define coenzymes. Discuss role of coenzymes in enzyme action.	05
	(c) Discuss citric acid cycle with its energetics.	05
Q.7	(a) Discuss beta-oxidation of fatty acids.	06
	(b) Define enzymes. Give its classification and nomenclature.	05
	(c) Describe hexose monophosphate shunt and give its significance.	05
