

GUJARAT TECHNOLOGICAL UNIVERSITY
BPHARM - SEMESTER- V • EXAMINATION – WINTER 2012

Subject code: 250003**Date: 16-01-2013****Subject Name: Pharmaceutical Chemistry – V (Bio-Chemistry)****Time: 10:30 am – 01:30 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) What are carbohydrates? Describe reactions of monosaccharide.	06
	(b) Give an account of chemical tests of carbohydrates.	05
	(c) Discuss the transport mechanism across cell membrane.	05
Q.2	(a) Discuss the edman's techniques for determination of sequence of amino acids.	06
	(b) Write a note on triglycerides.	05
	(c) Discuss aerobic glycolysis with energetics.	05
Q.3	(a) Write a note on Bioenergetics.	06
	(b) Write a note on biological significance of enzymes.	05
	(c) Explain role of hormones in maintenance of Carbohydrate metabolism.	05
Q.4	(a) Write a note on TCA cycle.	06
	(b) Explain Metals as Co-Enzymes and their Significance.	05
	(c) Define vitamin. Discuss coenzyme activity of vitamin B ₁ or vitamin B ₆ .	05
Q.5	(a) Discuss enzyme kinetics in brief and its mechanism of action.	06
	(b) Define lipids. Classify them with example.	05
	(c) Write a short note on phospholipids and glycolipids	05
Q. 6	(a) Explain secondary structure of protein.	06
	(b) Discuss reactions of proteins.	05
	(c) Write a note on ATP.	05
Q. 7	(a) Write a note on Pentose monophosphate pathway.	06
	(b) Define following terminology. (I) Gluconeogenesis (II) Glycogenolysis (III) Glycogenesis (IV) Epimers (V) Anomeric carbon	05
	(c) Explain metabolism of galactose and fructose.	05
