

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM – SEMESTER – V • EXAMINATION – WINTER – 2015****Subject Code: 250003****Date: 10/12/2015****Subject Name: Pharmaceutical Chemistry – V (Biochemistry)****Time: 10.30 AM to 1.30 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 α -helical structure of protein.	06
	(b) Write a note on Natural Fat.	05
	(c) Give an account of chemical tests of carbohydrates.	05
Q.2	(a) Define bioenergetics. Discuss concept of free energy.	06
	(b) Discuss Transport of macromolecules across the biological membranes.	05
	(c) Define oxidative phosphorylation. Discuss chemiosmotic hypothesis in detail.	05
Q.3	(a) Classify enzymes on the basis of the type of reactions they catalyze with relevant examples.	06
	(b) Write a detailed note on iso-enzymes.	05
	(c) Give an account on mechanism of enzyme action.	05
Q.4	(a) Explain about amphibolic nature of citric acid cycle.	06
	(b) Discuss aerobic glycolysis with energetics.	05
	(c) Write a note on glycogen storage disease.	05
Q.5	(a) Discuss the edman's techniques for determination of sequence of amino acids.	06
	(b) Classify the Lipids. Give the functions of Lipids.	05
	(c) What are fatty acids? Explain the various parameters measured to check the purity of fats and oils.	05
Q. 6	(a) Enumerate vitamins used as coenzymes. Discuss any two of them.	06
	(b) Describe the role of hormones in maintenance of blood sugar level.	05
	(c) Explain role of metals as coenzymes.	05
Q.7	(a) Define gluconeogenesis. Discuss cori's cycle.	06
	(b) Discuss pentose phosphate pathway.	05
	(c) How is galactose and fructose metabolized in the body?	05
