Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION - WINTER • 2014

	•	Code: 2130403 Date: 30-12-2014 Name: Basic Biochemistry	
Tir	•	2.30 pm - 05.00 pm Total Marks: 70	
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Draw a TCA cycle with neat structural representation. Write a brief account on monosaccharides.	10 04
Q.2	(a) (b)	Discuss in detail protein structural architecture. Explain the process of protein digestion in GIT. OR	07 07
	(b)	How ATP synthesis is taking place in mitochondria?	07
Q.3	(a) (b)	Define the term polarity. Classify the amino acids based on polarity and charge. How the toxic product ammonia is converted to nontoxic compound urea? Discuss it in detail.	07 07
Q.3	(a) (b)	OR With structure write in detail about pentose phosphate pathway. Describe the process of glycogen synthesis.	07 07
Q.4	(a) (b)	Carnitine is an importance of lipid carrier. Justify the statement with suitable explanation. Differentiate the key features of fatty acid oxidation and biosynthesis.	07 07
Q.4	(a)	OR Discuss how purines (adenine and guanine) are synthesized via synthesis of IMP.	10
	(b)	Write a short note on Gout.	04
Q.5	(a) (b)	How pyrimidines biosynthesis is regulated in eukaryotes and prokaryotes. With physiological significances discuss micro elements. OR	07 07
Q.5	(a) (b)	Give an account on ionization of water. Explain in detail about water soluble vitamins.	07 07
