

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2130403****Date: 05/06/2017****Subject Name: Basic Biochemistry****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	Short Questions	14
	1 Draw primary structure of amino acid.	
	2 _____ is the example of polysaccharide.	
	3 Define the term monosaccharide.	
	4 Give the names of disaccharide.	
	5 Write the phases of glycolysis.	
	6 Two amino acids are joining together by _____ bond.	
	7 Write the name of aromatic amino acids.	
	8 Draw the structure of glycerol	
	9 Define the term compound lipid with suitable example.	
	10 Draw the structure of adanine and guanine.	
	11 What do you mean by nucleotide?	
	12 Draw the structure of sugar moiety present in DNA.	
	13 Define weak acid with example.	
	14 What do you mean by gluconeogenesis?	
Q.2	(a) Enlist and explain functions of carbohydrate in biological system.	03
	(b) Give name and draw the structure of any 4 monosaccharide molecules.	04
	(c) Give structural presentation of TCA cycle.	07
	OR	
	(c) Write a detail note on polysaccharides.	07
Q.3	(a) Explain the term essential amino acids with suitable examples.	03
	(b) Write in brief about classification of lipids.	04
	(c) Describe the process of protein digestion in biological system.	07
Q.3	(a) What do you mean by amphoteric nature of amino acids?	03
	(b) Define and explain the term polar and non-polar amino acids with suitable examples.	04
	(c) Discuss in detail about forms of secondary structure of protein.	07
Q.4	(a) Write the physiological significances of lipids.	03
	(b) What is the role of acyl carrier protein in fat transport?	04
	(c) Define the term oxidative phosphorylation, explain with suitable reactions.	07
Q.4	(a) Enlist and write the role of fat soluble vitamins.	03
	(b) Differentiate between nucleoside and nucleotide with two examples of nitrogenous base.	04

- (c) Describe the process of β -oxidation for saturated fatty acids. **07**
- Q.5** (a) List out the bonds present in protein structure with brief explanation. **03**
- (b) Give a brief account on glucoconjugates. **04**
- (c) Elaborate the process of hexose monophosphate shunt. **07**
- Q.5** (a) Enlist the properties of water. **03**
- (b) Write the conversion of IMP to AMP. **04**
- (c) Write a note on classification of amino acids. **07**
