

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name : Principles of Biochemistry

Subject Code : 5SC01PBC1

Branch: M.Sc.(Microbiology)

Semester : 1

Date : 22/03/2017

Time : 10:30 To 01:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

SECTION – I

- Q-1 Attempt the Following questions (07)**
- a. What is the bond angle of H-O in water? 1
 - b. Which is false Sugar? 1
 - c. Define biomembrane. 1
 - d. What is the difference between electrostatic and vandervaal's force? 1
 - e. Give any two functions of conjugate sugar. 1
 - f. Define Enzyme. 1
 - g. Define Immobilization. 1
- Q-2 Attempt all questions (14)**
- (a) Write a note on structure of carbohydrates. 7
 - (b) Explain importance of water as universal solvent and its structure. 7
- OR**
- Q-2 Attempt all questions (14)**
- (a) Write a note on structure of nucleic acids. 7
 - (b) Write a note on structure of vitamins and nucleic acids. 7
- Q-3 Attempt all questions (14)**
- (a) Draw structure of biomembrane found in eukaryotic cell and discuss briefly. 7
 - (b) Discuss Immobilization of enzymes. 7
- OR**
- Q-3 Write a note on techniques used for determination of biopolymers. (14)**

SECTION – II

- Q-4 Attempt the Following questions (07)**
- a. Define Gibbs free energy. 1
 - b. What are different types of nucleic acids? 1
 - c. Define hormone. 1
 - d. Which linkage is found in starch? 1
 - e. Write H&H equation. 1



	f. Define catabolism.	1
	g. What is cofactor?	1
Q-5	Attempt all questions	(14)
	(a) Write a note on enzyme classification.	7
	(b) Write a note on Structural classification of amino acids.	7
	OR	
Q-5	Attempt all questions	(14)
	(a) Explain classification of protein structure.	10
	(b) Explain mechanism of enzyme action.	4
Q-6	Attempt all questions	(14)
	(a) Write note on factors affecting enzyme action.	7
	(b) Write note on post transcriptional modification.	7
	OR	
Q-6	Attempt all Questions	
	Explain photosynthesis and respiration.	(14)

