Enrollment No:	Exam Seat No:
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## C. U. SHAH UNIVERSITY

## Winter Examination-2022

**Subject Name: Principles of Biochemistry** 

Subject Code: 5SC01PBC1 Branch: M.Sc. (Microbiology)

Semester: 1 Date: 03/01/2023 Time: 11:00 To 02:00 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 a buffer and example?	01
	b.	What factors affect enzymes?	01
	c.	All proteins are enzymes. T/F	01
	d.	Which hormone is unique to female?	01
	e.	Which elements are found in carbohydrates?	01
	f.	What is the main function of amino acids?	01
	g.	What are the examples of carbohydrate?	01
Q-2		Attempt all questions	(14)
	a	Write a detail note on Oxidative Phosphorylation.	07
	b	Write a detail note on Structure of Water.	07
		OR	
Q-2			(14)
		Write a detail note on Enzyme Immobilization.	
Q-3		Attempt all questions	(14)
	a	Write a detail note on Buffer & pH.	07
	b	Write down the short note about scope & importance of Biochemistry.	07
		OR	
Q-3		Attempt all questions	<b>(14)</b>
	a	Write a brief note on any two Vitamins.	07



**b** Write a detail about classification & function of Carbohydrates.

**07** 

## SECTION – II

Q-4		Attempt the Following questions	(07)
	a.	What is common name of lipids?	01
	b.	Is bio membrane and plasma membrane are same? T/F	01
	c.	What is entropy in biochemistry?	01
		How many ATP are produced in oxidative phosphorylation from one glucose molecule?	01
	ρ	What factors affect photosynthesis?	01
	f.	What is the main element of protein?	01
		Lipids are that they are hydrophilic. T/F	01
Q-5		Attempt all questions	(14)
_	a	Give the detail about Photo synthesis.	07
	b	Define: Bond. Enlist the type of Bonds & write a detail about Hydrogen bond.	07
		OR	
Q-5		Attempt all questions	(14)
•	a	Write a brief note on factor Affecting Enzyme.	07
	b	Write down about Bio membranes.	07
Q-6			(14)
		Write a detail about DNA Replication in Eukaryotic Organism.	
		OR	
Q-6		Attempt all Questions	(14)
	a	Write down the difference between DNA & RNA.	07
	b	Write a detail note on Recombinant DNA Technology.	07

