$4 \times 10 = 40$

SECTION 'C'
Long Answer questions (Word limit 400-450 words.)

UNIT-I

Q. 1. Explain glycolysis and Kreb's cycle with Diagram. (only line diagram)

OR

Give an account of the biological importance of carbohydrates.

UNIT-II

Q. 2. Classify protein with examples.

OR

Classify the amino acids.

UNIT-III

Q. 3. Explain the biological function of Nucleic acid.

OR

Explain the structure of DNA.

UNIT-IV

Q. 4. Explain the mechanism of enzyme acion.

OR

Classify the enzymes with examples.

--------xxx----------

ROLL NO.....

ZOO. 402/22

IV SEMESTER EXAMINATION, 2022

M.Sc. (ZOOLOGY)

PAPER-II

BIOCHEMISTRY, METABOLIC REGULATION AND CELL FUNCTION

TIME: 3 HOURS **MAX.- 80**
MIN.- 16

Note: The question paper consists of three sections A, B & C. All questions are compulsory.
Section A- Attempt all MCQ questions
Section B- Attempt one question from each unit.
Section C- Attempt one question from each unit.

SECTION 'A' $2 \times 8 = 16$
Multiple Choice Questions

1. The degree of ionization does not depend on which of the following parameter -

(a) Naturel of solvent (b) Temperature
(c) Concentration (d) Current

2. Which of the following is an example of Epimer.

(a) Mannose & Glucose (b) Glucose & Ribose
(c) Galactose & Mannose (d) Glucose & Galactose

3. Which of the following is abundantly found in collagen -

(a) Tryptophan (b) Alanine

(c) Glycine (d) Serine

4. Which of the following makes water a liquid at room temperature?

(a) Non covalent interaction

(b) Hydrogen bonds between water molecules

(c) Van der waals forces of attraction

(d) Covalent bonding

5. Which of the following involves carrying genetic information from DNA for protein synthesis .

(a) Sn-RNA (b) r-RNA

(c) m-RNA (d) t-RNA

6. Neucleotides are linked togather to form nucleic acid through.

(a) Glycosidic bond (b) Phospho di ester bond

(c) Both (d) None

7. Any molecule which acts directly on an enzyme to lower its catalytic rate is called.

(a) Regulator (b) Repressor

(c) Inhibitor (d) Moderator

8. Enzyme are chemically -

(a) Proteins

(b) Proteins and Nucleic acids

(c) Protein and rarely robonucleic acids

(d) Protein and rarely carbohydrates

SECTION 'B' $4 \times 6 = 24$

Short Answer Type Questions

UNIT-I

Q.1. How water balance is regulated in the Body.

OR

Why water necessary for life.

UNIT-II

Q.2. What are the Biological functions of Protein.

OR

Explain in brief any two types of chemical bond.

UNIT-III

Q.3. What is the properties of vitamins.

OR

What is the function of vitamins.

UNIT-IV

Q.4. Explain lock and key hypothesis.

OR

Explain properties of enzyme inhibitors.