

2024

(June)

Biochemistry

Full Marks : 70

Time : 3 hours

The figures in the margin indicate full marks
for the questions

Answer all questions

1. What are vitamins? Name the fat soluble and water-soluble vitamins. Write the sources, biological functions and deficiency symptoms of Vitamin C. 2+5+8=15

2. Explain the process of glycolysis, including the key enzymes and regulatory steps. 10+5=15

3. Write short notes on: 5x6=30

- a) Functions of proteins in our body.
- b) Buffer systems of our body.
- c) Structure and function of ATP.
- d) Enzymes and its classification with examples.
- e) Balanced Diet and its importance.
- f) DNA and its functions.

(Turn Over)

4. Fill in the blanks/Write True or False: 1x10=10

- a) Rickets is caused due to deficiency of Vitamin Vit. D.
- b) Strong acids and alkalis cause denaturation of protein.
- c) The bond that is present between two amino acids in a protein is called peptide bond.
- d) The test done for detection of ketone bodies in urine is rothema's test.
- e) Vitamin B12 is also known as Cyanocobalamin.
- f) The process by which glucose is synthesized from non-carbohydrate sources is called gluconeogenesis.
- g) Enzymes increase the activation energy of biological reactions. (Write True/False)
- h) Glycogen is stored primarily in the liver and muscles. (Write True/False)
- i) Ketone bodies are produced during prolonged fasting and carbohydrate restriction. (Write True/False)
- j) The Krebs Cycle occurs in the cytoplasm of eukaryotic cells. (Write True/False)
