



বিদ্যাসাগর বিশ্ববিদ্যালয়

VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examination 2023

(Under CBCS Pattern)

Semester — II

Subject : NUTRITION

Paper : C-3T

(Nutritional Biophysics and Biochemistry)

Full Marks : 40

Time : 2 hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from **all** the Groups as directed.

GROUP—A

1. Answer **any five** questions from the following :

$$2 \times 5 = 10$$

(a) What do you mean by the term 'glycogenesis'?

(2)

(b) What is ketosis?

(c) Define coenzyme with one example.

(d) What is globular protein?

(e) Define colloid.

(f) Write the importance of buffer in our body.

(g) Write down any two functions of iron.

(h) What is deamination?

GROUP—B

Answer **any four** questions from the following :

$5 \times 4 = 20$

2. Write down the conversion from pyruvic acid to oxalosuccinic acid mentioning the name of enzymes and coenzymes. 5

3. What do you mean by genome? Write down the name of stop codons for eukaryotes. What is urea cycle? 2+1+2=5

4. What is oxidative phosphorylation? Write the process. 2+3=5

(3)

5. "DNA replication is semiconservative" — Justify the statement. 5

6. Write down the total energy production of glycolysis in aerobic and anaerobic states. 3+2=5

7. Write down the M-M equation. What is competitive inhibitor? 3+2=5

GROUP—C

Answer *any one* question from the following :

$$10 \times 1 = 10$$

8. Describe the β -oxidation of 16-C fatty acid with its energy production. 7+3=10

9. What are lipoproteins? Describe the role of High density and Low density lipoproteins in our body with special reference to cardiovascular diseases. 2+(4+4)=10

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