



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 :
2×5=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 :

5×4=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 :

10×1=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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