



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY
Question Paper

B.Sc. Honours Examinations 2022

(Under CBCS Pattern)

Semester - IV

Subject : PHYSIOLOGY

Paper : C 8-T

(Energy Balance, Metabolism and Nutrition)

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.

Group-A

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

5×4=20

1. What are the three important ketone bodies in our body? Write the importance of ketone bodies in our body. 5
2. What is electron transport chain? Define redox potential. 3+2
3. What is carnitine shuttle? What are the reactive oxygen species? 2+3
4. Write down the sources and functions of Vit-B12. 2+3
5. Mention the anti-oxidant properties of Vitamin-E and C. 5
6. What are the rate limiting steps of glycolysis? Mention its enzyme catalysed reaction. 4+1

P.T.O.

Group-B

Answer any *two* of the following questions :

10×2=20

7. What is the importance of Ornithine cycle? State the location of Ornithine cycle. Describe the pathways for urea cycle. 2+2+6
8. Discuss the role of epinephrine in glycogenesis and glycogenolysis. 5+5
9. Define beta-oxidation. Discuss the biochemical process of beta oxidation of Palmitic acid. Calculate the number of ATPs formed due to oxidation of Palmitic acid. 2+6+2
10. What is Cori cycle? What do you mean by negative nitrogen balance? Define nutraceutical and nutrigenomics. Define biological value of proteins. 2+2+2+2+2

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