TDC (CBCS) Even Semester Exam., 2022

ZOOLOGY

(Honours)

(4th Semester)

Course No. : ZOOHCC–403T

(Biochemistry of Metabolic Processes)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *ten* questions from the following : 2×10=20

1. What is catabolism?

2. What do you mean by intermediary metabolism?

3. Why is ATP known as 'energy currency of cell'?

4. What is glycolysis?

5. Why is citric acid cycle important?

6. What is ketogenesis?

7. What is the importance of β-oxidation of fatty acid?

8. Define beta-oxidation.

9. Write the overall equation for palmitic acid biosynthesis.

10. What is transamination?

11. What are glucogenic amino acids?

12. What are ketogenic amino acids?

13. What is redox system?

14. What are inhibitors of ETS?

15. Name the complexes of mitochondrial respiratory chain.

SECTION—B

Answer any *five* of the following questions : 6×5=30

16. Describe the stages of catabolism.

17. Write about shuttle systems and membrane transporters. 3+3=6

18. Describe the citric acid cycle with proper illustration. 4+2=6

19. Describe the process of gluconeogenesis with a flowchart. 4+2=6

20. Write about the process of β-oxidation of fatty acid with even number of carbon atoms.

21. Write the enzymatic steps in biosynthesis of palmitic acid.

22. Describe the process of urea cycle with suitable illustration.

23. Write about the catabolism of amino acids.

24. Write an essay on mitochondrial respiratory chain.

25. Mention the inhibitors of Electron Transport System in detail.

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