

2022
B.A./B.Sc.
Fourth Semester
CORE – 10
ZOOLOGY
Course Code: ZOC 4.31
(Biochemistry of Metabolic Processes)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Define shuttle system. Explain the various steps involved in glycerol-phosphate shuttle pathways. 2+12=14
2. (a) Write a note on types of metabolism. 7
(b) Explain the various stages in breakdown of large molecules. 7

UNIT-II

3. Explain the process of transformation of non-carbohydrates substrate to glucose. Add a note on its regulation. 10+4=14
4. Explain the two phases of pentose phosphate pathway. 7+7=14

UNIT-III

5. Explain the β -oxidation of saturated fatty acid with odd number of carbon atom. 14
6. Explain the biosynthesis of palmitic acid. 14

UNIT-IV

7. Define urea. Explain the ornithine cycle in detail. 2+12=14
8. Explain the fate of C-skeleton in glucogenic amino acid. 14

UNIT-V

9. Discuss the four complexes in electron transport chain. 14
10. Write notes on inhibitors and uncouplers of electron transport system. 7+7=14
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