

2022
M.Sc.
Second Semester
CORE – 6
ZOOLOGY
Course Code: MZOC 2.21
(Biochemistry)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Explain the mitochondrial electron transport chain complexes. 14
2. Write notes on the following: 7×2=14
 - (a) Henderson and Hasselbach equation
 - (b) Coupled reaction

UNIT-II

3. Describe the pentose phosphate pathway and add a note on its significance. 14
4. Write notes on the following:
 - (a) TCA cycle 9
 - (b) Why glucose is stored as glycogen in the body 5

UNIT-III

5. Discuss the organisation of protein structure. 14
6. Write notes on the following: 7×2=14
 - (a) Properties of amino acids
 - (b) Glutathione

UNIT-IV

7. Explain the fate of carbon skeleton of amino acids. 14
8. Write short notes on the following: 7×2=14
- (a) The urea cycle
 - (b) Metabolism of branched chain amino acids

UNIT-V

9. Discuss the integration of major metabolic pathways of energy metabolism. 14
10. Write notes on the following: 7×2=14
- (a) Regulation of metabolic pathways
 - (b) Organ specialisation
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