

2021
M.Sc
Third Semester
DSE – 01
ZOOLOGY
Course Code: MZOD 3.11 (B)
(Fish Biology - I)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Mention the taxonomic methods for identification of fresh water fishes. What are the methods employed for the phylogenetic studies and fish identification? 7+7=14
2. Discuss on the status and distribution of freshwater fish diversity of Northeast India. 14

UNIT-II

3. Explain absolute and relative growth of a fish. Write an account on the length-weight relationship and condition factor of a fish. 5+9=14
4. Write notes on the following: 5+5+4=14
 - (i) Hepatosomatic index
 - (ii) Gonadosomatic index
 - (iii) Fecundity

UNIT-III

5. With a neat labeled diagram, explain the structure of gills and its types. Add a note on different accessory respiratory organs in fishes. 9+5=14
6. Discuss on the modification in the digestive tract of fishes. Write the feeding behaviour and feeding adaptation in fishes. 7+7=14

UNIT-IV

7. What are the different types of excretion in fish and explain how it is regulated? Add a note on salt and water balance in freshwater fishes. 7+7=14
8. Describe the neurosecretory system and neurohypophysial hormones in fishes. Explain the functional morphology of pituitary gland in fish. 7+7=14

UNIT-V

9. Give a detailed account on the sexual maturation and breeding cycle in fishes. 14
10. Write a note on each of the following: 7×2=14
- (i) Sex reversal
 - (ii) Gynogenesis
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