

November 2025
M.Sc.
Third Semester
DISCIPLINE SPECIFIC ELECTIVE – 01
ZOOLOGY
Course Code: MZOD 3.11 (A)
(Fish Biology - I)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Discuss the current status and geographical distribution of fish diversity in Northeast India. What are the major threats facing these fish populations? 8+6=14
2. Write a note on each of the following: 7×2=14
 - (a) Fish barcoding
 - (b) Taxonomic keys

UNIT-II

3. Describe the relationship between ageing and growth in fish. 7+7=14
4. Write a note on each of the following: 7×2=14
 - (a) Ponderal index
 - (b) Fecundity

UNIT-III

5. Explain the feeding behaviour and feeding adaptation in fishes. 7+7=14
6. Discuss the function of a swim bladder. Explain the connection of Weberian ossicles with internal ear and air bladder. 6+8=14

UNIT-IV

7. Discuss the mechanisms involved in acid-base regulation of fish. 14

8. Describe the structure and function of the neurosecretory system and the neurohypophysial hormones in fish. 7+7=14

UNIT-V

9. Discuss the scope and application of genetics in fish selection and breeding. 7+7=14
10. Explain the reproductive system in teleost fish with diagram. 14
-