

**2023**  
**M.Sc.**  
**Third Semester**  
DISCIPLINE SPECIFIC ELECTIVE – 01  
**ZOOLOGY**  
*Course Code: MZOD 3.11(B)*  
(Fish Biology - I)

*Total Mark: 70*  
*Time: 3 hours*

*Pass Mark: 28*

*Answer five questions, taking one from each unit.*

**UNIT-I**

1. Explain the various types of taxonomic keys. 14
2. Discuss the status and distribution of freshwater fish diversity of NE India. 14

**UNIT-II**

3. Explain length-weight relationship and condition factor. Add a note on hepatosomatic index. 10+4=14
4. Explain the growth rate and ageing. How is gonadosomatic index and fecundity estimated? 10+4=14

**UNIT-III**

5. Describe the various feeding behaviour and feeding adaption in fishes. 9+5=14
6. Explain how gaseous exchange takes place in fishes. Add a note on accessory respiratory organs. 8+6=14

**UNIT-IV**

7. Describe the neurosecretory system with a labelled diagram. What is the role of neuro-hypophysial hormones? 10+4=14

8. Explain the various types of excretion of fish. Add a note on the function of pituitary glands. 10+4=14

### UNIT-V

9. Explain sexual maturation and breeding cycle of teleost. 14
10. Explain the test of equilibrium, application and properties of equilibrium population. 6+4+4=14
-