

**2021**

**ZOOLOGY — HONOURS**

**Paper : DSE-B(2)-2**

**(Fish and Fishery)**

**Full Marks : 50**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

Answer **any ten** questions.

1. Classify class Osteichthyes (upto subclass) mentioning two characteristics and one example of each taxon. 5
2. State modifications of mouth structure of fishes depending on their feeding habitat at different water levels. How does relative length of gut (RLG) value indicate feeding habit of fishes? 3+2
3. Name the types of median fins found in fishes with their location on the body. What do you mean by homocercal and heterocercal caudal fin? 3+2
4. Differentiate between cycloid and ctenoid scales. How scales are used to determine the age of a fish? 3+2
5. Distinguish between physostomous and physoclistous types of swim-bladder. Write the role of swim-bladder as a hydrostatic organ. 3+2
6. What is the function of electric organ in fishes? Write a short note on bioluminescence in fishes. 2+3
7. Distinguish between gill net and drag net. Name any two types of fishing craft used in West Bengal. 3+2
8. State any three differences between inland and marine fisheries. How GIS technology has improved fishing yield? 3+2
9. Briefly discuss the reasons behind depletion of fisheries resources in India. 5
10. Differentiate between intensive and semi-intensive system of fish culture. What are pen culture and cage culture? 3+2
11. Write the method for selection and segregation of brood stock in an aquaculture farm. 5
12. Elaborate the steps of hypophysation during induced breeding of carps. 5

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13. How water quality is important for preparation of aquarium? Name two fish preservation techniques. 3+2
14. Write the name of causal organism, two symptoms and preventive measure of one bacterial and one viral disease of fish. 2½+2½
15. What are the advantages of composite fish culture? State the importance of isinglass as fishery by-product. What is transgenic fish? 2+2+1
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