

May 2025
M.Sc.
Fourth Semester
DISCIPLINE SPECIFIC ELECTIVE – 03
ZOOLOGY
Course Code: MZOD 4.11 (B)
(Fish Biology - II)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Explain the fishery resources of the major river systems of India and their role in supporting inland fisheries. Highlight the economic significance and the challenges faced in sustainable fisheries management. 5+5+4=14
2. Discuss the significance of coastal fisheries in India with special reference to sardine and mackerel fisheries. Highlight the fishing methods and economic importance of coastal fisheries. 7+7=14

UNIT-II

3. Explain the principles involved in the preservation, handling, and packaging of fish for marketing. Discuss various preservation techniques used to maintain the quality of fish products. 7+7=14
4. Explain the various fishery by-products and their significance. Describe the production processes and uses of fish flour, fish silage, and fish protein concentrates. 5+9=14

UNIT-III

5. What is induced breeding in fish? Explain the process, methods, and importance of induced breeding in aquaculture. Mention the commonly used hormones and species in which this technique is widely applied. 2+10+2=14

6. Write a note on each of the following: 7×2=14
(a) Sewage-fed fisheries
(b) Aquarium keeping

UNIT-IV

7. Explain the general principles of feed formulation in aquaculture. Discuss the different steps involved in formulating a balanced feed for fish with emphasis on the nutritional requirements of different species. 5+9=14
8. Elaborate on the different types of feed available for larvae in aquaculture. Highlight the role of this feeds in the growth and survival of larva. 10+4=14

UNIT-V

9. Explain in detail the various disease diagnostic tools used in fish health management. 14
10. Write a note on each of the following: 7×2=14
(a) Isolation and culture of different types of bacteria
(b) Algal bloom and environmental microflora
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