2025

ZOOLOGY

(Honours Elective)

Paper : ZOO–HE–6026

(Fish and Fisheries)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Fill in the blanks : *(all seven)* 1×7=7

    (a) Osmoregulation is _____.

    (b) _____ is the first transgenic fish that was used as food.

    (c) Epizootic ulcerative syndrome (EUS) in fish is primarily a _____ disease.

    (d) Scales in fish can be used in determining the _____ of fish.

    (e) Argulosis is a disease in fish caused by the infestation of _____.

    (f) The collection of reproductively mature adult fish within a population that breed is referred to as _____.

    (g) Inland fisheries involve cultivating and catching fish in _____ environments.

2. Answer *all four* questions : 2×4=8

    (a) Write *two* characters of *Chondichthyes* fishes.

    (b) What are the different types of fins in a fish ?

    (c) Write the basic principle of Composite fish culture.

    (d) Write the functions of Swim Bladder in fish.

3. Write short notes on : *(any three)* 5×3=15

    (a) Types of scales in fish

    (b) Electric organs in fish

    (c) Pen culture

    (d) Zebra fish as a model organism in research

    (e) Parental care in fish

4. Answer the following questions : 10×3=30

    (a) What is Migration ? Describe the different types of migration in fish with examples. Write the factors influencing in fish migration. 2+6+2=10

    OR

    Describe various Fishery byproducts with their methods of preparation and uses. 10

    (b) What is remote sensing ? Write the application of remote sensing and GIS in fisheries. 2+8=10

    OR

    Describe the bacterial and fungal diseases of fish with their symptoms and prophylaxis. 10

    (c) What is Sustainable Aquaculture ? Describe extensive, semi-intensive and intensive culture of fish with their stocking density and production. 2+8=10

    OR

    What is Induced breeding ? Describe the hypophysation technique of induced breeding of fish. 2+8=10