



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 6th Semester Examination, 2023

ZOOADSE04T-ZOOLOGY (DSE3/4)

FISH AND FISHERY

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer any **eight** questions from the following: 2×8 = 16
- (a) Distinguish between pen culture and cage culture.
 - (b) Name two fishery byproducts and their uses.
 - (c) What do you mean by 'fishery'?
 - (d) Distinguish between homocercal and heterocercal caudal fin.
 - (e) What do you mean by viviparous fishes? Give two examples.
 - (f) What is EEZ?
 - (g) What is gill raker?
 - (h) What do you mean by a red gland? Write its function.
 - (i) What is TMAO?
 - (j) What is Argulosis?
 - (k) Name two crafts and two gears used in West Bengal fishery.
 - (l) What do you mean by transgenic fish?
2. Answer any **three** questions from the following: 3×3 = 9
- (a) What are the applications of remote sensing and GIS in fisheries? 1+1+1
 - (b) What do you mean by an electric organ? Where is it found? State its function. 2+1
 - (c) Distinguish between septal gill and opercular gill. What is spiracle? 2+1
 - (d) Distinguish between cat fishes and dog fishes. Give suitable examples. 2+1
 - (e) Why zebra fishes are used as model organisms in research?
3. Answer any **three** questions from the following: 5×3 = 15
- (a) Discuss about bioluminescence in fishes. 5
 - (b) Distinguish between the different types of swim bladders found in fishes with suitable diagram. State the functions of a swim bladder. 4+1
 - (c) What is hypophysation? What are the external differences between a male and a female carp? How the hormone extract is prepared? 1+2+2
 - (d) What is polyculture? Write the scientific name of the fishes used in polyculture. What is the most acceptable ratio of fishes used in polyculture? What is an exotic carp? 1+2+1+1
 - (e) Name the causative agent, symptoms and control measures of Dropsy and Branchiomycosis diseases of fishes. 2½+2½

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