



WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 6th Semester Examination, 2021

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: 2×8 = 16
- (a) What is Pen culture?
 - (b) What do you mean by “drag net” and “bag net”?
 - (c) What is EEZ?
 - (d) Name two synthetic hormones used in induced breeding of carp.
 - (e) State the causative agent and symptoms of abdominal dropsy.
 - (f) What is red gland? State its function.
 - (g) What do you mean by “column feeder” and “bottom feeder” fish?
 - (h) What is gill raker? Write its function.
 - (i) What do you mean by “estuary”? Give scientific name of one ichthyofauna of estuary of West Bengal.
 - (j) Define polyculture. Write the proper ratio of Indian major carps in polyculture.
 - (k) “Western coast of India has higher fish production.” – Why?
 - (l) State the basic difference between intrinsic and extrinsic bioluminescence in fish.
 - (m) Write the name and use of any two fishing craft.
 - (n) What do you mean by ovoviviparity in shark?
2. Answer any **three** questions: 3×3 = 9
- (a) What is Cage culture? Write its merits and demerits. 3
 - (b) What do you mean by transgenic fish? Write the importance of transgenic fishes. 1+2
 - (c) Briefly state about physoclistous and physostomous swim bladder. 1 $\frac{1}{2}$ + 1 $\frac{1}{2}$
 - (d) Classify fish depending on feeding habit and give example of each. 3
 - (e) Write in brief about Eco-hatchery along with its merits and demerits. 3

3. Answer any **three** questions: 5×3 = 15
- (a) Briefly state the structure of septal gill and explain how it works during respiration. 3+2
- (b) Define induced breeding. Explain the process of hormone extract preparation during this technique. What is the dose and injection technique follows here? 1+2+2
- (c) Explain the causes of depletion of fishery resources. State the basic importance of remote sensing in fishery. 3+2
- (d) Explain in brief how remote sensing and GIS can be applied in fisheries? 5
- (e) Discuss about bioluminescence in fishes. 5

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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