

U.G. 5th Semester Examination - 2020**ZOOLOGY****Course Code : BZOODSHC2 [DSE 2]****Course Title : Fish and Fisheries**

Full Marks : 30

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **ten** from the following: $1 \times 10 = 10$
- Name two alternative protein sources of fish feed except fish meal.
 - What are the different types of cages used in cage culture?
 - How swim bladder act as resonator?
 - Name two synthetic hormones used in induced breeding in carps.
 - What is oviparity?
 - Name two carp species used in polyculture.

- Name a fish with ganoid scale.
- How homocercal tail differs from diphyccercal tail?
- Give example of a fish with three dorsal fins.
- Write the scientific names of two ornamental fishes.
- Which parasite is known as carp lice?
- Name the enzyme responsible for bioluminescence.
- Give two examples of amphidromous fish.
- Name two fishing harbours located in West Bengal.
- What are Weberian ossicles?

2. Answer any **five** from the following: $2 \times 5 = 10$
- Write two differences between physoclistous and physostomous swim bladder.
 - Write the role of $\text{Na}^+ - \text{K}^+ - \text{ATPase}$ pump during electric discharge in electric rays.
 - State the drawbacks of using ice for fish preservation.
 - What are the causes for microbial spoilage after canning of fish?

- e) Fishes are R-strategists– Explain.
- f) Name two transgenic fishes.
- g) Write two applications of remote sensing in fisheries.
- h) Write two applications of chitin.

3. Answer any **two** questions from the following:

$$5 \times 2 = 10$$

- a) Enumerate the role of swim bladder in gas exchange in teleosts.
 - b) Explain the counter-current mechanism during respiration in teleost gills.
 - c) Discuss the resources in India for inland fisheries.
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