

2022

1st Semester Examination

FISHERIES SCIENCE

Paper : FSC 102

Full Marks : 40

Time : Two Hours

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

## Unit-102.1

[Taxonomy, Classification, Biology,  
Biodiversity and Conservation of Fishes]

1. Answer any *two* questions from the following :  $2 \times 2 = 4$
- (a) Define homonymy and synonymy with example.
  - (b) Write the name of lung fishes with their order name and characters.
  - (c) Give the feeding habit of *Macrobrachium rosenbergii*.
  - (d) What do you mean by the Index of Biotic Integrity ?

P.T.O.

2. Answer any *two* questions from the following :  $4 \times 2 = 8$

- (a) Discuss the different molecular techniques used for fish taxonomic study.
- (b) Discuss the regulation relating to exotic and invasive aquatic species introduction in India.
- (c) Write on the life cycle and of *Penaeus vannamei*.
- (d) Briefly discuss the Shanon-Weiner Index with an example.

3. Answer any *one* question from the following :  $8 \times 1 = 8$

- (a) State the different causes for depletion of fish diversity. Discuss the different *ex situ* conservation mode for fish biodiversity conservation.  $3+5$
- (b) State the importance of taxonomy in Fisheries Science. Mention the important taxonomic characters for identification of fish.  $4+4$

### Unit-102.2

#### [Distribution, adaptation and evolution]

4. Answer any *two* of the following :  $2 \times 2 = 4$

- (a) Define latitudinal migration with example.
- (b) Point out the geographical distribution of any two lung fishes.

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(c) What is the elver eel ?

(d) State the evolutionary importance of Ostracoderm fish.

5. Answer any *two* of the following : 4×2=8

(a) Distinguish between catadromous and anadromous fish migration.

(b) Give an account on the distribution of freshwater fishes in Indian water.

(c) Describe the evolution of bony fishes using phylogenic tree.

(d) Mention the adaptive modifications of deep seas fishes.

6. Answer any *one* of the following : 8×1=8

(a) Define Zoogeographical realms. Briefly describe the geographic range and fishes available of Oriental realms. Add a note on the Neotropical realms with special emphasis on fish abundance.  $2+(2+2)+2=8$

(b) Write short note on : 4+4

(i) Agnathan fish

(ii) Ghost shark.

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