

Zoology (P.G.)

[CBCS]

M.Sc. Third Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-303

[Fishery Special]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

[USE SEPARATE ANSWER SCRIPT IN EACH GROUP]

Group A

Full Marks 20

[Ichthyotaxonomy & Fish Biology]

1. Answer any two questions of the following: 2x2= 4

- a. What are FCR and NPU?
- b. Define fingerlings?
- c. Write the scientific name of any two estuarine fishes.
- d. Name one fish endocrine gland with its hormones.

2. Answer any two questions of the following: 2x4= 8

- a. Mention the functions of fish growth hormones.
- b. Write in brief the history of Indian fishery.

(2)

- c. Write any four fish hormones and their antagonist.
- d. Describe fish migration types with suitable example.

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

- a. Write down the relation between fish growth in respect with any two biotic and abiotic factors.
- b. Write down the lifecycle of finfish with suitable diagram.

(3)

6. Answer any one question of the following: $1 \times 8 = 8$

- a. Write about zonations of sea with diagram and characteristics features $4+4$
- b. Short note on -
 - i) Epifauna & Infauna
 - ii) Factors controlling zooplankton distribution $4+4$

Group B

Full Marks 20

Biological oceanography

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

- a. Classify different types of plankton.
- b. State the physical characteristics of ocean.
- c. Write any two adaptive characters of deep sea fish.
- d. What do you mean by cyclomorphosis in zooplankton.

5. Answer any two questions of the following: $2 \times 4 = 8$

- a. Discuss the impact of climate change on marine biodiversity.
- b. What is upwelling? State its importance in fishery.
- c. Describe in brief the mineral cycling in ocean environment.
- d. Write a note on composition of sea water.