

M.Sc. 2nd Semester Examination, 2025

FISHERIES SCIENCE

(Reproduction in Finfish and Shellfish)

PAPER—FSC-203

Full Marks : 25

Time : 1 hour

Answer all questions

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 *two* of the following questions: 2×2

(a) What is multiple breeding? State its importance.

(Turn Over)

- (b) Mention the characteristics of pre-vitellogenic and vitellogenic oocytes.
- (c) Name four neuropeptides controlling reproduction in teleost fish.
- (d) What is artificial propagation in aquaculture ?

2. Answer any *two* of the following questions : 4 × 2

- (a) Explain sexual dimorphism in finfish with examples.
- (b) Describe nutritional requirements for carp broods for quality seed production.
- (c) Explain the concepts of gonochorism and hermaphroditism in fishes.
- (d) Draw a schematic diagram of the fish pituitary gland indicating cell types and the hormones they secrete.

(3)

3. Answer any *one* of the following questions : 8 × 1

(a) Explain the endocrine and neuroendocrine regulation of reproduction of a tropical teleost. Illustrate with appropriate diagram.

(b) Discuss different phases of ovarian cycle of a tropical teleost. Describe different manipulation techniques used for early gonadal maturation in fishes.

4 + 4

[Internal Assessment — 5 Marks]

1000

1000

1000

1000