

**2025/FYUG/ODD/SEM/
IFFDSM-201T/400**

FYUG Odd Semester Exam., 2025

**INDUSTRIAL FISH AND FISHERIES
(3rd Semester)**

Course No. : IFFDSM-201T

**Fish Reproduction, Development Breeding,
Hatchery Management and Fish Pathology)**

Full Marks : 70

Pass Marks : 28

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

Answer any *two* of the following questions :

2×2=4

- (a) What is GSI?
- (b) What is sexual dimorphism?
- (c) Define migration.

Answer any *one* of the following questions : 10

- (a) Discuss different stages in the maturation of an oocyte.

(2)

- (b) Define spawning. Describe the factors affecting spawning in fishes.

UNIT—II

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

- (a) What are the types of eggs? Describe.
(b) Describe briefly ovulation.
(c) What is fecundity?

4. Answer any *one* of the following questions :

- (a) What is parental care? Describe the parental care in fishes.
(b) Define gastrulation. Discuss the gastrulation in fishes with a diagram.

UNIT—III

5. Answer any *two* of the following questions :

- (a) Describe briefly inbreeding and cross-breeding.
(b) Write a short note on bundh breeding.
(c) Write the principle of brood selection.

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(3)

- Answer any *one* of the following questions : 10
(a) Discuss the techniques of induced breeding of any carp and state use of natural and synthetic hormones.
(b) Write a note on breeding habits of cultivable fish species.

UNIT—IV

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

- (a) Write a note on fry and fingerling.
(b) State how fish seeds are collected from natural resources.
(c) Write a short note on brood fishes.

7. Answer any *one* of the following questions : 10

- (a) Describe how fish seed, fry, fingerling and brood fish are transported.
(b) Write a note on hatchery technology and mention its uses in fishery.

UNIT—V

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

- (a) Discuss briefly EUS.

(Turn Over)

(4)

- (b) Describe nutritional non-infectious disease.
- (c) Write a note on *Argulus*.

10. Answer any *one* of the following questions :

- (a) Describe bacterial and protozoan type of fish disease and state their control measures.
- (b) Discuss infectious and non-infectious types of diseases you have studied.

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