

M. Sc. 3rd Semester Examination, 2024

FISHERIES SCIENCE

PAPER — FSC-303 (Unit-1 & Unit-2)

Full Marks : 50

Time : 2 hours

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

PAPER — FSC-303 (Unit-1)

(Special Paper : Aquaculture Practices)

[Marks : 20]

1. Answer any *two* of the following : 2 × 2
- (a) Define aquaculture and mention its importance in the Indian context.

(Turn Over)

(b) Define stunted fish seed and its advantages in aquaculture.

(c) What do you mean by FAO adopted Blue Transformation programme ?

(d) What do you mean by sustainable aquaculture practices ?

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

(a) Explain the present status and scope of fish farming in India.

(b) Discuss the importance of rearing techniques in brood-stock management.

(c) Explain the role of ornamental fish culture in the Indian aquaculture industry.

(d) Discuss the advantages of wastewater fish farming.

(3)

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

- (a) Explain the major challenges and opportunities in marine fish farming, focusing on the cultivation of seaweed and marine mollusks.
- (b) Give an account on global ornamental fish trade.

PAPER – FSC-303 (Unit-2)

(*Fish Nutrition and Bioenergetics*)

[Marks : 20]

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

- (a) Describe the energy flow diagram in aquatic organism. 2 × 2
- (b) Mention four important anti-nutrients with their ingredient sources.

- (c) Mention the criteria of a good fish feed.
- (d) Importance of check tray in shrimp feeding management.

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

- (a) Discuss the different factors influencing 4×2 in energy portioning in aquatic organism.
- (b) Give an account on the different feed additives used for aqua feed preparation.
- (c) Discuss about aquatic versus terrestrial organism's nutritional issues.

(d) Give an account on the Pearson's square method with an example.

6. Answer any *one* question from the following :

- (a) Classify different types of fish feed. 8×1
Enlist different non-conventional fish feed resources used in aqua feed preparation. $5 + 3$

(5)

- (b) Write down the different feeding process used in Indian aquaculture. State the relation among FCR and PER with an example. 5 + 3

[Internal Assessment – 10 Marks]
