M.Sc 3rd Semester Examination, 2019

FISHERIES SCIENCE

PAPER — FSC-303

Full Marks : 40

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

Illustrate the answers wherever necessary

UNIT—I

(*Aquaculture Practices*)

1. Answer any *two* questions :   2 × 2

    (*a*) Write name of two live bearer ornamental fishes.

(b) What is non-food aquaculture ?

(c) State distribution of Sea-weeds in Indian context.

(d) Define coastal aquaculture with examples.

2. Answer any *two* questions :   4 × 2

(a) Briefly narrate the guidelines of shrimp farming.

(b) How would you maintain the home aquarium ?

(c) Briefly explain the present status of aquaculture production.

(d) Write a brief note on management of water quality of any culture pond.

3. Answer any *one* question :   8 × 1

(a) (i) What are the present status of ornamental fish trade in India ?

(*ii*) Briefly explain the process of any one live fish food culture.

(*iii*) Write a brief note on aquarium plants.

$2 + 4 + 2$

(*b*) Short note : 2×4

(*i*) Aquascaping

(*ii*) Organic farming

(*iii*) Biofloc

(*iv*) Waste water.

UNIT—II

(Fish Nutrition and Bioenergetics)

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

(*a*) Enlist the digestive enzyme release in different parts of digestive track of fish.

(*b*) What is feed additive ? Name them.

(*c*) Why do we use check tray ?

(*d*) Why does fish feed become rancid ?

(*Turn Over*)

5. Answer any *two* questions : 4×2

   (*a*) Classify different types of fish feed.

   (*b*) Compare between animal and fish nutrition.

   (*c*) Why is Vitamin-C important in fish nutrition ?

   (*d*) Give an account on the storage of fish feed.

6. Answer any *one* question : 8×1

   (*a*) (*i*)   Enlist the non-conventional fish feed ingredients.

   (*ii*) Give an account of the energy partitioning of fish feed.

   (*iii*) Enlist different factors affecting fish nutrition. $3 + 3 + 2$

   (*b*) (*i*)   Discuss about Pearson's square method of fish feed formulation by using four fish feed ingredients.

(*ii*) What is the relation between FCR and PER ?

(*iii*) A farm has 3000 fingerlings in one hectare fish farm with average weight of 15g. The quantity of ration is 5% body weight. Calculate the requirement of fish feed (kg/ha/day).

$3\frac{1}{2} + 2 + 2\frac{1}{2}$

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