

2009

M.Sc.

2nd Semester Examination

AQUACULTURE MANAGEMENT AND TECHNOLOGY

PAPER—AMT-2002

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

(Fish Nutrition, Information and Ornamental Fish)

1. Answer any four of the following : 2×4
- (a) What do you mean by digestibility co-efficient (D%) ?
 - (b) Mention Common name and Scientific name of two live bearer ornamental fishes.
 - (c) Enlist the name of essential amino acids required in different fish feed preparation.

(Turn Over)

- (d) Mention the composition of Bristol's solution used in phytoplankton culture.
- (e) How would you calculate percentage Apparent Digestibility (% AD) of a nutrient.
- (f) Define water stability of fish feed.
- (g) Mention the scientific name and common name of two exotic ornamental fish cultural in West Bengal.
- (h) Enlist two names of common anaesthetics used during ornamental fish transport.

2. Write notes on *four* of the following : 4×4

- (a) Antinutritional factors in fish feed ingredients.
- (b) Briefly discuss different types of feed additives used in fish feed formulation.
- (c) Feeding management of ornamental fishes in home aquarium.
- (d) Nutritional diseases of fish.
- (e) Enumerate the culture procedure of brine shrimp.
- (f) Discuss the mode of action of feed probiotics.
- (g) Marketing of ornamental fishes in West Bengal.
- (h) Discuss the procedure for estimation of Crude protein content in fish feed ingredients by Kjeldahl Method.

3. Answer any two of the following : 2×8

- (a) (i) What do you mean by FCR and PER Value.
- (ii) Enlist the different types of plant ingredients used for fish feed formulation in India.
- (iii) Add a note on feeding management in shrimp farming pond. 2+3+3
- (b) (i) What do you mean by oviparous fish? Give four examples with common name and scientific name of oviparous ornamental fishes.
- (ii) Describe the breeding practices of Guppy.
- (iii) Discuss the Economics of Small-scale breeding and rearing unit for live bearer ornamental fish species. $2\frac{1}{2}+2\frac{1}{2}+3$
- (c) (i) With the help of Square method of Hardy, prepare 250 kg. of feed having 35% of protein by using under mentioned four ingredients, such as —
- (a) Rice bran 12% protein
- (b) Soyabean meal 48% protein
- (c) Fish meal 45% protein
- (d) Corn meal 13% protein
- (ii) Add a note on storage problems of aqua feed. 5+3

- (d) (i) What do you mean by live feed ?
- (ii) Discuss the mass culture procedure of freshwater zooplankton.
- (iii) Add a note on prospects of live feed culture in India.

$$1\frac{1}{2}+4+2\frac{1}{2}$$
