

2009

**AQUACULTURE MANAGEMENT AND
TECHNOLOGY**

(Finfish and Shellfish Pathology)

PAPER—AMT - 3003

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

1. Write briefly on any *four* of the following : 2 × 4

(a) Differentiate Acute and Chronic diseases.

(Turn Over)

- (b) Define Vertical and Horizontal transmission of fish diseases.
- (c) What are the clinical signs of gas bubble disease in fish.
- (d) What is invasive fish disease ? Give an example.
- (e) Differentiate the monogenean and digenean trematodes of fish.
- (f) Mention the treatment methods of argulosis.
- (g) What are the principles of fish disease diagnosis ?
- (h) Define stress and stressors.

2. Answer any *four* of the following : 4 x 4

- (a) Classify the different types of fish diseases with suitable example.
- (b) Discuss the main diagnostic approaches for fish disease control.

- (c) Ich disease of IMC.
- (d) Discuss about the white spot syndrome viral disease of *P. monodon*.
- (e) How to determine that the fish are sick ?
- (f) Non-infectious diseases of freshwater fish.
- (g) Briefly discuss on the bacterial gill disease of Indian major carp.
- (h) Discuss the different treatment methods of fish diseases.

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

(a) (i) Give an account on the etiology, prophylactic measures and treatment of any two common fungal diseases of shrimp.

(ii) Briefly describe shrimp vibriosis and luminous vibriosis. 4 + 4

(b) (i) Define EUS.

(ii) Enlist pathogenic signs observed in EUS in Carp.

(iii) Discuss briefly the prophylactic and treatment measures of EUS. $2 + 2\frac{1}{2} + 3\frac{1}{2}$

(c) (i) Why diseases are important to aquaculture?

(ii) List out the general and clinical signs of diseased shrimp.

(iii) What are the possible fates of a disease causing agent within its host? $2\frac{1}{2} + 4 + 1\frac{1}{2}$

(d) (i) Add a note on treatment of bacterial diseases with medicated feed.

(ii) Briefly answer on saprolegniasis and columnaris disease of finfish. $4 + 4$