

2010

M.Sc.

3rd Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-3003

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.

(Finfish and Shellfish Pathology)

1. Write briefly on any *four* of the following : 2×4
- a) Define stressors. Mention the different types of stressors observed in fish.
 - b) What is SEMBV?
 - c) Explain epidemiology and epizootiology.
 - d) Mention the different steps for fish disease diagnosis.

(Turn Over)

- e) What is the causative agent of Dropsy? Enlist two symptoms of such disease.
- f) What do you mean by invasive fish disease? Give an example.
- g) Mention the advantages and disadvantages of both treatment of fish disease.
- h) Define "Red disease" of *Penaeus morodon*.

2. Answer any *four* of the following : ' 4×4

- a) Discuss prophylactic measures of disease management in shrimp farming.
- b) Mention the different questionnaires which are to be filled up for the diagnostic evaluation of fish diseases.
- c) Discuss the pathogenic symptoms and treatment of EUS.
- d) Mention the causative agent of 'water mold' disease of shell fish. Enlist the symptoms and preventive measures of this disease.
- e) Explain Non-infectious disease of IMC.
- f) Management of aquarium fish disease.

g) Mention the causative agent, symptoms and proposed treatment of "Whirling disease" of fish.

h) Write a note on "piscine tuberculosis".

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

a) i) Enlist important parasitic crustaceans causing disease in fresh water environment.

ii) Discuss the symptoms and treatment of any two of such parasitic crustacean disease.

iii) Mention the treatment of ciliated protozoan infection in fish. 2+3+3

b) i) What is the causative agent and symptoms of 'Ich' disease in fish ?

ii) Discuss two important disease caused by monogenean trematodes mentioning symptoms and treatment of such disease.

iii) Add a note on disease caused by digenian trematode.

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

- c) (i) Mention the symptoms of spring viremia of carp.
- ii) Enlist the causative agent and symptoms of Columnar disease and Bacterial kidney disease of fish.
- iii) Discuss the treatment of bacterial disease with medicated feed. 2+3+3
- d) (i) Mention the causative agent, symptoms and treatment of Branchiomycosis and Alfatotoxicosis.
- ii) Add a note on "Black Spot" disease of Shrimp. 3×2+2
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