

2013

M.Sc.

3rd Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-303

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 on any four of the following : 2×4

- (a) Define 'Red disease' of *Penacus monodon*.
- (b) What is the causative agent of Dropsy? Mention the two symptoms of such disease.
- (c) Mention the advantages and disadvantages of bath treatment of fish disease.

(Turn Over)

- (d) What do you mean by invasive fish disease? Give two examples.
 - (e) Define stressors. Mention the different biological stressors observed in fish.
 - (f) Explain epidermiology and epizootiology.
 - (g) Enlist the different steps of fish disease diagnosis.
 - (h) Mention the symptoms and control of Lernaeasis of fish.
2. Answer any four of the following : 4×4
- (a) Enlist the common fish diseases of home aquarium with their treatment.
 - (b) Elucidate the non-infectious diseases of fish.
 - (c) Explain in detail the 'water mold' disease of *Penaeus monodon*.
 - (d) Discuss EUS in fish.
 - (e) Write a note on 'Piscine tuberculosis'.
 - (f) Write note on 'Whirling disease' of fish.

- (g) Enlist the different questionnaires which are to be filled up for the diagnostic evaluation of fish disease.
- (h) Mention the role of NaCl and CuSO₄ in fish disease control.

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

- (a) (i) Mention the symptoms of spring viremia in carp.
- (ii) Enlist the causative agent and symptoms of 'Columnaris' disease and 'Bacterial Kidney disease' of fish.
- (iii) Add a note on the treatment of bacterial disease. 2+3+3
- (b) (i) Mention the causative agent, symptoms and treatment of 'Branchiomycosis' and 'Aflatoxicosis'.
- (ii) Add a note on 'Black spot disease' of shrimp. 5+3
- (c) (i) Enlist the important parasites which cause disease in freshwater environment.
- (ii) Discuss the symptoms and treatment of two such parasitic diseases.
- (iii) Mention the treatment of ciliated protozoa infection in fish. 2+3+3

- (d) (i) Write the causative agent and symptoms of 'Ich' disease' in fish.
- (ii) Discuss the monogenean trematode causing disease in fish.
- (iii) Add a note on prophylactic measures taken in *Peneaus monodon* culture. 2+3+3
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