

**M.Sc. 3rd Semester Examination, 2014**

**AQUACULTURE MANAGEMENT  
AND TECHNOLOGY**

*( Finfish and Shellfish Pathology )*

**PAPER — AMT-303**

*Full Marks : 40*

*Time : 2 hours*

*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 on any *four* of the following : 2 × 4
- (a) Name two RNA virus and two DNA virus infected fish disease.
  - (b) Mention the causes of gas bubble disease of IMC.

*( Turn Over )*

( 2 )

- (c) Write down the prophylactic and therapeutic measures of white spot disease of *penaeus monodon*.
  - (d) Define nutritional diseases of fish with examples.
  - (e) Write down the names of two endoparasites and two ectoparasites that cause disease to IMC.
  - (f) Briefly outline the main approaches in fish disease diagnosis.
  - (g) Mention the causative agent and symptoms of 'piscine tuberculosis'.
  - (h) How to identify sick-fish ?
2. Answer any *four* of the following : 4 × 4
- (a) Discuss different treatment methods of fish diseases.
  - (b) Write down the life cycle of *Myxobolus cerebralis*.

- (c) Write down the strategy for preventing fish disease.
- (d) Define different types of stressors in fish.
- (e) Discuss 'Ich' disease of IMC.
- (f) Mention the causative agent, symptoms and proposed treatment of black spot disease of *penaeus monodon*.
- (g) Discuss prophylactic measures for disease management in shrimp farming.
- (h) Narrate the monogenean trematode disease of fish.

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

- (a) (i) Define primary and secondary infections diseases.
- (ii) Discuss life cycle of *Argulus*.
- (iii) Enumerate the treatment methods of different parasitic diseases.  $2 + 2\frac{1}{2} + 3\frac{1}{2}$

- (b) (i) Define EUS.
- (ii) Enlist the pathogenic signs that are observed in EUS infected carp.
- (iii) Discuss briefly the prophylactic and treatment measures of EUS. 8
- (c) (i) Briefly discuss the life cycle of *Saprolegnia* sp.
- (ii) Enumerate the 'Cotton wool' disease of shrimp.
- (iii) Add a note on fungal disease treatment.  $2\frac{1}{2} + 2\frac{1}{2} + 3$
- (d) (i) Enlist the different bacterial diseases of shrimp.
- (ii) Discuss 'Spring Viremia of Carp'.
- (iii) Add a note on the control measures of bacterial diseases with medicated feed. 2 + 3 + 3
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