### 2009

### M.Sc.

### 4th Semester Examination

# AQUACULTURE MANAGEMENT AND TECHNOLOGY

PAPER-AMT-4001

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.

## (Fisheries Technology & Harbour Engineering)

## 1. Write in brief (any four):

 $2\times4$ 

- (a) Give an example from Ethylenic thermoplastics and one from Non-ethylenic thermoplastics used in fish packaging.
- (b) What do you mean by fish protein concentrate (FPC)?
- (c) Define trash fish. Give two examples.
- (d) What is Pearl Essence? Mention its uses.
- (e) Mention the names of two natural fibres and two synthetic fibres used in net preparation.
- (f) How would you determine the mesh size of a net?
- (g) What do you mean by Marine fouling?
- (h) What are the characteristic features of packaging materials used in dried fish packaging.

2. Write on four of the following:

 $4 \times 4$ 

- (a) Discuss briefly the factors affecting fishing gear design.
- (b) Advantages of Ferrocement used for Craft design.
- (c) Role of Echo-Sounder in fishing.
- (d) Enumerate the traditional fishing methods used in West Bengal.
- (e) Discuss the utility of responsible fishing.
- (f) Electric fishing methods.
- (g) Discuss in brief the packaging of frozen fish.
- (h) Explain Buttered and Breaded products as value added fish products.

# 3. Answer two of the following:

8×2

- (a) (i) What do you mean by active and passive fishing gears?
  - (ii) Classify fishing trap.
  - (iii) Mention advantages and disadvantages of trap fishing. 3+3+2
- (b) (i) What is line fishing?
  - (ii) Enlist different line fishing methods.
  - (iii) Add a note on the structures of gill nets.

2+3+3

- (c) (i) Enlist the different by-products prepared from fish.
  - (ii) How would you prepare Isinglass in the Laboratory?
  - (iii) Add a note on the use of Chitin and Chitosan. 3+3+2
- (d) (i) Define Modified, Atmosphere packaging.
  - (ii) Enlist the gases and gas mixtures used for MAP.
  - (iii) Discuss the effect of MAP on pathogenic bacteria in fresh water.  $\cancel{\text{c}}\cancel{\text{c}}$   $2+2\frac{1}{2}+3\frac{1}{2}$