

M.Sc. 4th Semester Examination, 2011

**AQUACULTURE MANAGEMENT
AND TECHNOLOGY**

(Food Safety and Quality Assurance)

PAPER—AMT-4002

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

(a) Enlist the different techniques of food preservation.

(Turn Over)

- (b) What is I.Q.F ?
- (c) State the proximate composition of Catla and Pomfret.
- (d) Why fast freezing rate is advantageous than slow freezing ?
- (e) Differentiate between fresh fish and spoiled fish.
- (f) What is food intoxication ?
- (g) Write the basis of staphylococcal food poisoning.
- (h) What is rancidification ?

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

- (a) How do you prevent biological food spoilage ?
- (b) Add a note on the mode of action of cholera toxin.
- (c) Highlight the outcome of freezing on bacteria having public health significance ?

- (d) State the principle of plate freezing.
- (e) Explain cryogenic freezing using liquid nitrogen.
- (f) Give an account on the packaging requirements for frozen fish.
- (g) What are the advantages and disadvantages of air-blast freezing ?
- (h) State the significance of HACCP.

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

- (a) Define spoilage. State the bio-chemical changes of fish muscles during spoilage . Add a note on the thawing of frozen fish. 2 + 4 + 2
- (b) How would you control the quality of food ? Explain the method of quality assessment. 2 + 6
- (c) What is the significance of ice ? Calculate the requirement of ice during freezing. Cite an example. 2 + 6

- (d) What are the changes associated with the freezing during cold storage of fishes? Add a note on freezing curve.

5 + 3
