2015

M.Sc.

4th Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-402

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.

(Food Safety & Quality Assurance)

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

(a) Why fast freezing is advantageous than slow freezing ?

(b) What is rancidity of fat ?

(c) Write the proximate composition of silver pomfret.

(d) Enlist chemical hazards observed in processing plant.

(e) What are the needs of hygienic handling of fish ?

(f) State the advantages of plate freezers.

(g) Define spoilage indices.

(h) What is nucleation autolysis ?

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

(a) How much ice is required to preserve 60 kg of fish ?

(b) Briefly explain the composition of HACCP Team.

(c) Write a short note on Drip-loss.

(d) Briefly narrate the freezing curve with diagram.

(e) Write briefly the action of bacteria on the chemical components of fish.

(f) Describe the postmortem bio-chemical changes in fish tissues.

(g) What are the problems created by *salmonella* sp and *shigella* sp in freezing fish ?

(h) State the characteristics of pre-rigor and post-rigor fishes.

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

(a) What is TMA and TMAO ? Briefly describe the changes that takes place in different fish tissues during spoilage. 2+6

(b) What is immerson freezing ? Briefly describe the process of freezing in any one fish. Add a note on botulism. 2+4+2

(c) Define cryogenic freezing. State the advantages and disadvantages of cryogenic freezing. Add a note on spoilage indices. 2+4+2

(d) Write notes on : 2×4

(i) Block ice and flake ice.

(ii) Air blast freezing.