### 2008

#### M.Sc.

# 3rd Semester Examination AQUACULTURE MANAGEMENT & TECHNOLOGY

#### PAPER-AMT-3001

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.

## (Aquatic Biology)

Answer Q. No. 1 and any three from the rest.

# 1. Answer any five of the following:

2×5

- a) Write. What you know about primary productivity of an ecosystem?
- b) How many types of good chain are found in nature?
- c) What do you mean by rhithron community?
- d) What are zones of upwelling?
- e) Write the importance of benthos in an aquatic ecosystem.
- f) Why intertidal zone is more productive than other areas?
- g) State the composition of Sea-water.

- h) What are the differences between natural and artificial ecosystem?
- i) What do you mean by Spring and neap tides?
- 2. a) What is thermocline?
  - b) Briefly illustrate the thermal stratification of a lake.
  - c) Add a note on special types of lake. 2+5+3
- 3. a) What do you mean by ecological energetics?
  - b) Discuss the Lindeman's energy flow model with diagram.
  - c) State the functions of ecosystem.
  - d) Why ecosystem is called as self-sustaining system? 2+4+2+2
- **4.** a) Enumerate the physico-chemical characteristics of estuarine water body.
  - b) Mention the faunal diversities of continental-shelf.
  - c) Write the functions of decomposers. 4+4+2
- **5.** a) State the geographical areas of Hooghly-Matlah estuary.
  - b) Describe the potential fishery resources of Mahanadi estuary.
  - c) Add a note on aquatic foodweb. 2+5+3
- **6.** Write short notes on any two of the following:  $5\times2$ 
  - a) Coastal Resource Management in West Bengal.
  - b) Structure of a Sea-beach.
  - c) Conservation strategies of aquatic ecosystem.
  - d) Zonation of Ocean.