

2011

M.Sc.

1st Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-103

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.

(Taxonomy & Biology of fin fish & shell fish)

1. Answer four of the following questions : 2×4
- a) Why the spiny eels and Bulls eyes are called so?
 - b) State the ecological significance of Circadian rhythms.
 - c) What is motivational stimulus?
 - d) Define ecological natality.

(Turn Over)

- e) Write the name of top predators in marine foodweb.
- f) What are density independent factors in population regulation ?
- g) Write the systematic position of moon fish and sand fish ?
- h) What is digestive co-efficient ?

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

- a) Narrate the different taxonomic characters used in classification.
- b) State the factors responsible for fish growth.
- c) How would you estimate the stream water fish population ?
- d) Discuss the function of pineal gland in controlling Bio-rhythms.
- e) Differentiate up-stream and down-stream migration.
- f) State the function of producer in aquatic food-web.
- g) Briefly explain the population dispersion.
- h) Describe the relationship among dissolved oxygen and fish behaviour.

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

- a) Give a detailed account on the anthropogenical activities affecting fish migration. Add a note on its suggestive measures. 6+2
- b) Discuss in brief the reproductive behaviour of Blue-Gill Sun fish (*Lepomis macrochirus*) with special reference to the hierarchy of drive. Add a note on the Aquatic Surface Respiration (ASR). 5+3
- c) Define age structure of a population. How would you calculate the age of fishes? 2+6
- d) What are characteristics of a population? Write the important characteristics of Cephalopods & Bivalvis. 4+4
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