2013

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 and Biology of Fin Fish and Shell Fishes)

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

(a) Write the name of two commercially important gastropods and bivalves from Indian water.

(b) Why the spiny eels and decapods are called so?

(c) What is 'Jetlag'?

(d) Define circadian rhythms. Cite on example with its ecological significance.

(e) What are emigration and immigration ?

(f) How would you correlate the effect of dissolved oxygen with the fish behaviour ?

(g) Define Natality and Mortality.

(h) What is carrying capacity of a lake ecosystem ?

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

(a) Narrate the functions of pineal gland in controlling bio-rhythms.

(b) Differentiate between cephalopoda and bivalvia

(c) Briefly explain the upstream migration of salmon.

(d) Describe the mechanism for manifestation of fish behaviour.

(e) Briefly explain different types of Survivorship curves.

(f) How would you calculate the age of fishes ?

(g) Write a note on the prospect of chank fishery in India.

(h) Give an account on the migration of prawn.

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

(a) (i) What are the conditions to be required during the estimation of stream populations ?

(ii) Describe the general procedures for counting stagnant water fish population.

(iii) Add a note on the depletion method for counting fish population.

3+3+2

(b) Differentiate between :

(i) Shoaling and Schooling of fishes.

(ii) Spawning migration and Recruitment Migration.

4+4

(c) (i) Write the salient features of order-siluri formes.

(ii) Classify clean crustacea with living examples.

3+5

(d) Write short notes on any *two* : 4×2

(i) Age structure of a population;

(ii) Effect of dam on fish migration;

(iii) Dipnoi and Chimera;

(iv) Agnathan fish.

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