2012

M.Sc.

3rd Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-301

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)

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

(a) What are the lentic & lotic aquatic ecosystem ?

(b) Differentiate holoplankton from Mero-plankton.

(c) State the role of producer of an aquatic ecosystem.

(d) Distinguish between Swamp and Marshes ?

(e) Cite examples of supra and infra-neuston.

(f) Define rhithron communities.

(g) What do you understand by the term ecological energetics ?

(h) Define trophic level.

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

(a) Draw and describe the model of universal energy flow.

(b) Briefly explain the food-web of an aquatic ecosystem.

(c) Write a brief note one classification of wetland ecosystem.

(d) Explain the structural view of a sea-beach.

(e) Enlist the biotic communities of rocky shores.

(f) Enumerate the characteristic features of Marine Water.

(g) State the importance of abiotic factors of an aquatic ecosystem.

(h) "Energy flow is always unidirectional"—Justify.

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

(a) What are recurring and non-recurring coast ? Give an account on the role of plankton in imparting of colour in water of aquaculture pond. 3+5

(b) Define estuary. Describe the hydrobiology & fishery potentialities of Mahanandi estuary. Add a note on continental shelf. 2+4+2

(c) What is nekton ? Give an account on the conservation strategies of an aquatic ecosystem. Add a brief note on oligotrophic lake. 2+4+2

(d) Short notes (any *two*) : 4×2

(i) Biotic community of limnetic & profundal zones.

(ii) Importance of productivity of an aquatic ecosystem.

(iii) Zonation of Ocean.

(iv) Bio-mass of an aquatic ecosystem.

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