

M.Sc. 3rd Semester Examination, 2014

**AQUACULTURE MANAGEMENT AND
TECHNOLOGY**

PAPER—AMT-301

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks

*Candidates are required to give their answers in their
own words as far as practicable*

Illustrate the answers wherever necessary

(Aquatic Biology)

I. Answer four of the following : 2 × 4

- (a) Differentiate between photic and aphotic zone.**
- (b) "Transparent water is not beneficial for fish culture". Why ?**

(Turn Over)

- (c) State the functions of producer in an aquatic ecosystem.
 - (d) What is zone of upwelling ?
 - (e) Why wetland ecosystems are called as Nature of Kidney ?
 - (f) What is holoplankton and Meroplankton ?
 - (g) Differentiate between BOD and COD.
 - (h) State the functional differences between food chain and food-web.
2. Answer *four* of the following : 4 × 4
- (a) Briefly explain the biotic community of pelagic zone.
 - (b) State the fisheries potential of Hoogly-Matlah estuary.
 - (c) Narrate the thermal stratification of a freshwater lake.

- (d) Elucidate the physical properties of marine environment.
- (e) Briefly explain the Universal energy flow model.
- (f) What are the major activities found in the coastal zone of India ?
- (g) State the present scenario of marine environment in Indian Coast line.
- (h) Briefly discuss the structure of a sea-beach.
3. Answer *two* of the following : 8 × 2
- (a) What is gross and net primary productivity ?
Give an account on the conservation process of an aquatic ecosystem. 3 + 5
- (b) What are Nectons and Benthos ? Write briefly on the significance of benthos in an aquatic ecosystem. Write a note on detritus-based food chain. 3 + 2 + 3

- (c) Why estuarine ecosystems are more productive than other aquatic ecosystems ?
Briefly discuss the application of Remote sensing in coastal resource management. 3 + 5
- (d) State the significance and reasons of following water colours : 2 × 4
- (i) Golden Brown
 - (ii) Dark Green
 - (iii) Yellow
 - (iv) Foggy white.