

2012

M.Sc.

3rd Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-302

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.

1. Answer any four of the following: 2×4
- (a) Define chemotaxis and Magnetotaxis for bacteria. 2
- (b) *E. Coli* is considered as bioindicator of water pollution. Explain. \2
- (c) Enlist the names of the microbes which are exclusively involved in conversion of nitrogen. 2
- (d) State the importance of sub-merged aquatic Macrophytes. 2

(Turn Over)

- (e) Write short notes on urban sewage. 2
- (f) Point out the differences between BOD and COD. 2
- (g) What is Trickle filter? 2
- (h) Write your idea on plasmid. 2
2. Answer any four of the following: 4×4
- (a) What are the roles of micro organisms in sulphur cycle? 4
- (b) Draw a typical Gram-negative eubacteria flagellum and state its function. 4
- (c) State the role of physical and chemical factors in self-purification of water. 4
- (d) Mention the causes of eutrophication. State its impact on aquatic biota. 4
- (e) Write a note on importance of probiotics in aquaculture. 4
- (f) What do you mean by biomagnification? Explain with suitable examples. 2+2
- (g) Discuss the impact of pollution on fish and fisheries. 4
- (h) Define pasteurization. State its importance. 2+2

- 3. Answer any two of the following:** 8×2
- (a) Classify the major types of aquatic Macrophytes and add a note on their role in aquatic production. 4+4
- (b) Briefly describe the steps of sewage-treatment. Add a note on prospects of sewage-fed fishery and West Bengal. 4+4
- (c) (i) Write a note on the lytic cycle of viral replication and its significance.
- (ii) Point out the role of microbes in an aquatic ecosystem. 4+4
- (d) Point out the different groups of aquatic fungi. State its importance in fresh water aquatic ecosystem. 4+4
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