

2011

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.

(Microbiology and Public Health Fishery)

1. Answer any four of the following: 2×4
- (a) State the criteria of an indicator organism.
 - (b) What is the importance of Penicillin?
 - (c) Mention the different phases of Microbial growth.
 - (d) Write the name of two nitrogen fixing micro-organisms.

(Turn Over)

- (e) What is transit Microflora of fish ?
- (f) State the disease triangle concept.
- (g) What are the different parts of a typical bacterial cell wall ?
- (h) Write the name of four food born diseases caused by bacteria.

2. Answer four of the following :

4×4

- (a) Compare among gram positive and gram negative bacteria.
- (b) How does aquatic weed interfere in fishing and fish culture ?
- (c) State the physical and chemical factors of water-self purification.
- (d) What are the differences between BOD and COD ?
- (e) Narrate the components of environmental contaminants.
- (f) State the advantages and disadvantages of membrane filter techniques.

(g) Write about the effect of water pollution on aquatic biota.

(h) Briefly explain the importance of Pasteurization.

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

(a) What are fungi ? Describe the characteristic features of aquatic fungi. Add a note on food safety.

2+3+3

(b) Write the scientific name of two floating aquatic weeds. Discuss the sustainable aquatic plant management to maintain the aquatic plant equilibrium.

3+5

(c) What are the role of micro-organisms in sulphur cycle ? State the effect of temperature on survival of bacteria.

4+4

(d) Give an account on the process of secondary sewage treatment. Add a note on the sewage-fed fish culture in West Bengal.

5+3