2010

M.Sc.

3rd Semester Examination

AQUACULTURE MANAGEMENT & TECHNOLOGY

PAPER—AMT-3002

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) Why *Escherichia coli* is considered as indicator of water pollution ?

b) What is transit microflora of fish ?

c) What are plasmids ?

d) Differentiate Macrophytes from microphytes.

e) Write the importance of probiotic on aquaculture.

f) What are Koch's postulates ?

g) Mention the scientific name of two aquatic weeds.

h) Which are used as energy sources ?

i) State the disease triangle concept.

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

a) Write the importance of microbes in phosphorus cycle.

b) Define Pasteurization. State its importance.

c) How does aquatic weed interfere in fishing and fish culture?

d) What are the advantages and disadvantages of membrane filter technique?

e) Define BOD. How do you measure it?

f) State the physical and chemical factors of water-self purification.

g) Briefly describe the culture techniques to isolate bacteria from a clinical sample.

h) What are the prospects of sewage-fed fish culture in West Bengal?

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

a) What are aquatic fungi? Write down the process of testing microbial pollution of water through MPN method. 2+6

b) Write the scientific name of two aquatic weeds which are used as ornamental plant in aquaria. Classify aquatic weed based on their habitat and give common examples. 2+6

c) Define aquatic pollution. Describe the sources and effect of Industrial Pollution. 2+6

d) Write notes on : 4×2

i) Composition of urban sewage ;

ii) Sludge digester ;

iii) Fish health impact of aquatic pollution ;

iv) Point and non-point sources of aquatic pollution.
