

2022

M.Sc.

2nd Semester Examination

FISHERIES SCIENCE

PAPER—FSC-203

Full Marks : 50

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.

UNIT-203.1

AQUATIC POLLUTION AND ECO-TOXICOLOGY

1. Answer any *two* questions.

2×2

(a) What do you mean by Maximum Residual Limit (MRL)? Give name of two such xenobionts and

(Turn Over)

its MRL value in fish.

- (b) Enlist the point and non-point source of aquatic pollution.
- (c) Give two names of phytotoxins and their source & impact on fish.
- (d) What is bioindicator? Give two examples from aquatic environment.

2. Answer any *two* questions. 2×4

- (a) Write a note on environmental impact of coastal shrimp farming.
- (b) Give an account on chelation therapy.
- (c) Write a short note on eutrophication and its impact on the waterbodies.
- (d) Discuss the role of Pollution Control Board to control aquatic pollution.

3. Answer any *one* question. 1×8

- (a) What do you mean by toxicokinetics? Write down the sources, toxicokinetics and impact of

mercury on aquatic environment. 2+6

- (b) What is biotransformation? Enlist 4 xenobionts available in aquatic environment. Write biotransformation mechanism on any one of the above xenobionts. 2+2+4

UNIT-203.2

AQUATIC MICROBIOLOGY & PUBLIC HEALTH FISHERIES

1. Answer any *two* questions. 2×2
- (a) What do you mean by probiotics and prebiotic?
- (b) State on microbial bioremediation.
- (c) What is microbial biofilm? State its significance.
- (d) Name two gram +ve and two Gram -ve bacteria found in aquatic environment.
2. Answer any *two* questions. 2×4
- (a) Discuss different factors influencing the microbial growth.

- (b) Write down the importance of study of aquatic microbiology.
- (c) State different disinfection techniques used in microbiological laboratory.
- (d) Discuss waste water aquaculture in respect of public health point of view.

3. Answer any *one* question, 1×8

- (a) What do you mean by biogeochemical cycle? Give an account on nitrogen cycle with special emphasis on role of microbes. 2+6
- (b) Classify different types of media used for microbial growth. How do you control microbial growth? 4+4

[*Internal Assessment - 10 Marks*]
