

**M.Sc.**

**2016**

**2nd Semester Examination**

**FISHERIES SCIENCE**

**PAPER—FSC-203**

*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.*

**Unit—I**

**(Aquatic Pollution)**

1. Write in brief any two of the following : 2×2
- (a) Define 'Eutrophication.'
  - (b) What is BOD? Mention the BOD level for ideal aquaculture farm.

*(Turn Over)*

- (c) Classify different types of Servage.
- (d) Define pollution indicator Species with example.

2. Answer any *two* questions of the following : 2×4

- (a) State the radioactive pollution in aquatic environment & its impact.
- (b) Give an idea about point and non-point sources of aquatic pollution.
- (c) Discuss the recycling of waste water through aquaculture.
- (d) Enumerate the microbiological aspects of pollution control.

3. Answer any *one* question of the following : 1×8

- (a) (i) Discuss the impact of different pollutants on aquatic organism.
- (ii) How to Control aquatic pollution? 4+4
- (b) (i) Discuss the primary and Secondary treatment method of Sewage.
- (ii) State the role of Pollution Control Board in India. 4+4

**Unit—II****(Ecotoxicology & Environment)**

4. Answer any *two* questions from the following : 2×2
- (a) State about corrosive pollutants with examples.
  - (b) Define Environmental risk assessment.
  - (c) What is carcinogenic xenobiotic? Give one example.
  - (d) Define LC<sub>50</sub> and LD<sub>50</sub>.
5. Answer any *two* questions from the following : 2×4
- (a) State the difference between toxic kinetics and toxic dynamics.
  - (b) Give an idea about Arsenic toxicity in aquatic environment.
  - (c) Explain GATS in respect to environmental management.
  - (d) Discuss the concepts of Index of Biotic Integrity (IBI).
6. Answer any *one* questions of the following : 1×8
- (a) (i) Define the terminology, Biotransformation, and Bioaccumulation.

- (ii) Give an idea about the biomagnification.
- (iii) Add a note on the biotransformation of a biomolecule. 2+3+3
- (b) (i) Mention the characters of heavy metals with at least four examples.
- (ii) Discuss different chelating agents.
- (iii) State the chelation therapy of heavy metals. 2+3+3
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