

**PG CBCS**  
**M.Sc. Semester - II Examination, 2022**  
**FISHERIES SCIENCE**  
**PAPER: FSC 203**

Full Marks: 40

Time: 2 Hours

**Write the answer for each unit in separate sheet**

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.

**FSC 203.1 Fish Reproduction**

**Marks: 20**

**GROUP-A**

**1. Answer any two questions:**

2×2=4

- a) What do you mean by acute and chronic toxicity?
- b) Define corrosive pollutants with example.
- c) What do you mean by Maximum Residual Limit? Give two examples
- d) What is bio indicator? Give two examples from aquatic environment?

**GROUP-B**

**2. Answer any two questions:**

2×4=8

- a) What do mean by  $LC_{50}$  and  $LD_{50}$ ?
- b) Give an account of chelating therapy.
- c) What is toxicokinetic and toxicodynamic?
- d) Briefly describe the toxicity of arsenic.



**GROUP-C**

**3. Answer any one questions:**

1×8=8

- a) Describe eutrophication and their impact on aquaculture.
- b) Write down the waste water treatment process for fish culture.

**FSC 203.2: Hatchery Design & Management**

**Marks: 20**

**GROUP-A**

**1. Answer any two questions:**

2×2=4

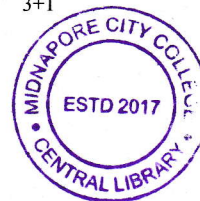
- a) What is ammonification?
- b) Name two Gram<sup>+</sup>ve and Gram<sup>-</sup>ve bacteria found in aquatic environment.
- c) Give two examples and role of microbes involved in bioremediation.
- d) What do you mean by prebiotics? How is it related to probiotics?

(P.T.O.)

(2)

**GROUP-B****2. Answer any two questions:****2×4=8**

- a) How and why are microbes producing biofilms? What is its significance in aquaculture? 3+1
- b) State different disinfection technique used in microbiological laboratory.
- c) Discuss waste water aquaculture in respect to public health point.
- d) Discuss on the carbon cycle.

**GROUP-C****3. Answer any two questions:****1×8=8**

- a) Briefly describe the different phases of bacterial growth with proper diagram?  
How the pH and temperature do regulates microbial growth? 5+3
- b) How does an enrichment medium differ from differential media? Discuss the role of probiotics in aquaculture.

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