



VIDYASAGAR UNIVERSITY

M.Sc. Examinations 2020 Semester IV

Subject: Fisheries Science

Paper: FSC 403 (Special Paper)

(Theory)

Full Marks: 40 Time: 2 hrs.

Candidates are required to give their answers in their own words as far as practicable.

Unit-1: (Aquaculture Engineering & Environment Management)

Answer any One of the following questions

- 1. Briefly narrate the intensification of aquaculture
- 2. Draw and design the layout of different aquafarms
- 3. Describe the integrated aquafarming system
- 4. Write a brief note on Biofertilizers
- 5. Discuss waste water treatment for sustainable aquaculture
- 6. Describe the process of weed management
- 7. Explain the role of soil and water quality of aquaculture pond
- 8. Briefly narrate the construction and design of pond dyke, sluice gate, water supply and drainage system
- 9. Briefly illustrate the cage and pen culture

Unit:2: (Fish Genetics and Biotechnology)

Answer any one of the following questions:

- 1. Briefly describe meiotic gynogenesis in fish with suitable diagram. State its usefulness.
- 2. What is sex reversal? Explain the methods with suitable examples.
- 3. What is transgenic fish? Explain its importance in aquaculture development.
- 4. Briefly discuss evolution of fish karyotypes.
- 5. Briefly explain the procedure for the production of sterile fish.
- 6. Elaborate the process of DNA folding and packaging in to a metaphase chromosome.
- 7. Discuss different types of fish hybridization with suitable examples.
- 8. What is monosex fish culture? State its importance.
- 9. Give an account of application of biotechnology in aquaculture and fisheries.