

**MZOE-003**

# **ASSIGNMENT BOOKLET**

**M.Sc. (Zoology) Programme  
(MSCZOO)**

## **AQUACULTURE**

**Valid from 1<sup>st</sup> January, 2025 to 31<sup>st</sup> December, 2025**



**School of Sciences  
Indira Gandhi National Open University  
Maidan Garhi, New Delhi-110068**

**(2025)**

Dear Student,

Please read the Section on assignments in the Programme Guide for M.Sc. (Zoology). A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, which would consist of one tutor-marked assignment for this course. The assignment is in this booklet. The total marks for this assignment is 100, of which 40 marks are needed to pass it.

**Instructions for formatting your Assignments**

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your answer sheet, please write the details exactly in the following format:

---

**ROLL NO.:** .....

**NAME:**  
.....

**ADDRESS:** .....  
.....  
.....

**COURSE CODE:** .....

**COURSE TITLE:** .....

**ASSIGNMENT NO.:** .....

**STUDY CENTRE:**.....

**DATE:** .....

---

**PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.**

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Solve this assignment, and **submit the complete assignment answer sheets within the due date.**
- 6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **Answer sheets received after the due date shall not be accepted. We strongly suggest that you retain a copy of your answer sheets.**
- 7) This assignment is valid from 1<sup>st</sup> January, 2025 to 31<sup>st</sup> December, 2025. If you have failed in this assignment or fail to submit it till its validity, then you need to get the assignment for the next year and submit it as per the instructions given in the Programme Guide.

8) **You cannot fill the examination form for this course**until you have submitted this assignment.

We wish you good luck.

## ASSIGNMENT (Tutor Marked Assignment)

Course Code: MZOE-003  
Assignment Code: MZOE-003/TMA/2025  
Maximum Marks: 100

---

**Note: Attempt all questions. The marks for each question are indicated against it.**

1. Give a broad overview of the different categories of estuarine fauna. (7+3=10)  
Explain why water as a medium has advantage over other solvents?
2. Discuss the distribution and biology of any four fish species belonging to brackish water aquaculture. (10)
3. Give a detailed outline of the construction of a pond for aquaculture with suitable illustrations. (10)
4. What is biofloc farming? What are the different types of biofloc system? Write a note on microalgae as a component of biofloc. (2+5+3=10)
5. a) Give a brief account of the fish genetic diversity of Indian aquaculture. (5)  
b) Discuss the procedure of spawning and hatching of eggs in bundh breeding. (5)
6. What are the non-protein nitrogenous components available in fish? (3+7=10)  
Write the role of prebiotics and postbiotics in fish nutrition.
7. a) What are the factors regulating the price of fish in a market? (5)  
b) What are the negative impacts of aquaculture on biological resources? (5)
8. What are the guiding principles required in planning for education extension in fisheries? What are the characteristics of extension agency? (7+3=10)
9. a) Discuss the different scope of aquaculture. (5)  
b) What are the major types of culture-based fishery practices? (5)
10. a) Discuss the mechanism of sex reversal with regard to aquaculture. (5)  
b) What is raceway aquaculture? Discuss the water supply system in raceway aquaculture. (5)