

ASSIGNMENT BOOKLET
Diploma in Aquaculture
Optional Course in Coastal Aquaculture

Valid from 1st January 2025 to 31st December 2025

PLEASE NOTE

- Diploma in Aquaculture is a 28 credit programme. It comprises compulsory core course on Basics of Aquaculture and optional courses on two specialized streams of Aquaculture that are Freshwater Aquaculture and Coastal Aquaculture.
- The compulsory 'Basics of Aquaculture' course is worth 8 credits and has a component of 6 credits worth project work.
- Optional 'Freshwater Aquaculture' and 'Coastal Aquaculture' courses are of 8 credits each and have 6 credits worth of laboratory course each.
- You cannot appear in the Term-End Examination of any course without registering for the course. Otherwise, your result will not be declared and the onus will be on you.

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

(2025)

Dear Student,

We hope you are familiar with the system of evaluation to be followed for the Diploma in Aquaculture Programme. At this stage you may probably like to re-read the section on assignments for Elective Courses in the Programme Guide (on page 10) that we had sent you after your enrolment. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation which would consist of one tutor-marked assignment (TMA) for this course.

Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully.

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

ENROLMENT 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.

- 1) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 2) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 3) Your answers should be precise.
- 4) While solving problems, clearly indicate the question number along with the part being solved. Be precise.
- 5) **This assignment will remain valid for one year from January 1, 2025 to December 31, 2025.** However, you are advised to submit it within **12 weeks** of receiving this booklet to accomplish its purpose as a teaching-tool. Answer sheets received after the due date shall not be accepted.

We strongly feel that you should retain a copy of your assignment response to avoid any unforeseen situation and append, if possible, a photocopy of this booklet with your response.

We wish you good luck!

ASSIGNMENT
(Tutor Marked Assignment)
Coastal Aquaculture

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

1. Define saline and alkaline soils. Discuss the soil properties that are important for aquaculture. (10)
2.
 - a) Explain the key functional units of a shrimp hatchery and their roles. (5)
 - b) Outline the primary components of artificial diets formulated for fish and shrimp larvae. (5)
3. List five essential nutritional requirements of fish and shrimp and explain the significance of each nutrient. (10)
4. Discuss the ecological significance of mangroves. (10)
5. List the commercially important finfish species suitable for coastal aquaculture. What are the most effective methods for their cultivation? (10)
6. Describe the desirable characteristics of a species considered suitable for aquaculture. (10)
7.
 - a) Provide a brief explanation of the culture practices used in ponds for the production of *Artemia* cysts and biomass. (5)
 - b) Describe the methods for processing and storing *Artemia* cysts and biomass. (5)
8. Describe any five common diseases of shrimp and explain how each disease is diagnosed. (10)
9. What is the difference between monoculture and polyculture? Discuss the risks are associated with the pen culture method? (10)
10. Provide a detailed description of pearl harvesting, the grading process, and the economics of pearl culture. (10)