

**BAQ-003**

**ASSIGNMENT BOOKLET**

**DIPLOMA IN AQUACULTURE**

Optional Course

in

**(COASTAL AQUACULTURE)**

**Valid from 1<sup>st</sup> January, 2026 to 31<sup>st</sup> December, 2026**

**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**

**(2026)**

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%, 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.

1. 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.**

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. While solving problems, clearly indicate the question number along with the part being solved. Be precise.
6. **This assignment will remain valid for one year from January 1, 2026 to December 31, 2026.** 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)

Course Code: BAQ-003  
Assignment Code: BAQ-003/TMA/2026  
Maximum Marks: 100

---

1. Describe the major estuaries found along the east and west coasts of India, and explain the important fisheries associated with them. (10)
2. a). What characteristics are considered ideal in organisms that are used for aquaculture/fish culture? (5)  
b). Describe the main types of flora and fauna that live in brackish water ecosystems. (5)
3. Discuss how a shrimp hatchery is designed and built, using neat, well-labelled diagrams to illustrate the main structures and layout. (10)
4. a). What is induced breeding, and which hormones are commonly used to trigger it in fish farming? (5)  
b). Briefly explain the different types of artificial feeds used to nourish fish or shrimp larvae in aquaculture. (5)
5. Using clear diagrams, explain how dykes and peripheral dykes are built for aquaculture ponds. (10)
6. Discuss the key physical and chemical properties of water that must be maintained within safe levels for successful prawn seed production. Provide examples of optimal ranges for each property and explain their significance. (10)
7. (a) Explain seed production for mud crab culture, which involves catching berried (egg-carrying) crabs, hatching their eggs, and rearing the larvae. (5)  
(b) Why do fish culture ponds require organic manure? (5)
8. (a) What are the two latest genetic techniques used for pathogen identification in fisheries? (5)  
(b) List three major factors that need to be taken care of for prevention of diseases. (5)
9. Name the commercially important finfishes suitable for culture in coastal areas and describe the most promising methods for culturing them. (10)
10. (a) Briefly write about the **two** edible seaweed species suitable for culture in Indian coastal areas. (5)  
(b) Explain various methods of pearl oyster farming. (5)