

Diploma in Aquaculture

**Optional Course
in
Coastal Aquaculture**

(Valid from 1st January, 2021 to 31st December, 2021)

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 Garhim, New Delhi-110068**

(2021)

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. Write units at each step of your calculations as done in the text because marks will be deducted for such mistakes. Take care of significant digits in your work. Recheck your work before submitting it.
- 5) **This assignment will remain valid for one year from January 1, 2021 to December 31, 2021.** 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/2021

Maximum Marks: 100

1. a) Give an account of the state-wise brackishwater aquaculture resources of India. (5)
- b) Explain briefly the feeding habits and spawning season of the grey mullet *Mugilb cephalus*. (5)
2. a) Discuss the ecological importance of mangroves. (5)
- b) How do upwellings and outwellings cause circulation of nutrients in the coastal zone? (5)
3. a) Discuss the major units of shrimp hatchery. (5)
- b) What are the hormones used and how are they administered for induced breeding of fishes? (5)
4. a) What are the methods followed for the removal of pathogenic organisms from the penaeid shrimp hatchery system? (5)
- b) What are the major culture techniques to be followed in algal culture? (5)
5. a) Explain briefly about the culture operations in ponds for *Artemia* cyst and biomass production. (5)
- b) Discuss briefly different types of artificial feeds used for feeding larvae. (5)
6. a) Write the effect of pH of soil on aquaculture species. (5)
- b) Write a note on metabolites whose higher concentration affect the shrimp species adversely. (5)
7. a) Differentiate between monoculture and polyculture. (5)
- b) What are the risks involved in using pen culture method? (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. Why has mariculture assumed greater importance recently? Describe briefly the major issues in the coastal sea farming sector and name the management system which is needed to solve these problems. (10)
10. Describe pearl harvesting, grading and economics of pearl culture in detail. (10)