Reg. No ..... Name **23P342**

M. Sc. DEGREE END SEMESTER EXAMINATION : NOVEMBER 2023

SEMESTER 3 : AQUACULTURE AND FISH PROCESSING

COURSE : **21P3AQCT11 : CULTURE OF CRUSTACEANS, SEA WEEDS AND FISHERIES TECHNOLOGY**

(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	Which is the aminoacid producing histamine in fish?	(R, CO 6, CO 7, CO 8)
2.	Coliforms.	(U, CO 4, CO 5)
3.	Explain the distribution of lobster species in India.	(U, CO 1)
4.	What is latent heat of fusion of ice?	(R, CO 6, CO 7, CO 8)
5.	Explain the influence of water content on spoilage of fish.	(U, CO 6, CO 7, CO 8)
6.	Explain major water quality problems in a prawn hatchery.	(U, CO 1)
7.	Explain eyestalk ablation of Penaeid prawn.	(U, CO 1)
8.	What are the Industrial uses of agar agar?	(R, CO 2, CO 3)
9.	Explain the composition of MAP?	(U, CO 6, CO 7)
10.	What is mean by Diplontic life cycle? Write an example.	(R, CO 2, CO 3)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Evaluate the advantages of biofloc based shrimp farming technology.	(E, CO 1)
12.	Discuss different shrimp and crab transportation methods .	(E, CO 1)
13.	Analyse on the methods of chilling fish onboard.	(An, CO 6, CO 7, CO 8)
14.	Analyse on the biochemical changes induced by bacterial growth during fish storage and spoilage.	(An, CO 6)
15.	Explain the major proteins present in the sarcoplasmic proteins?	(U, CO 7)
16.	Culture of edible sea weed in India.	(E, CO 2, CO 3)
17.	Evaluate the suitability of agar manufacturing methods in India.	(E, CO 2, CO 3)
18.	Extrinsic factors affecting bacterial growth.	(U, CO 4, CO 5)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Discuss the Components required for a crab hatchery and its operation.	(E, CO 1)
20.	Propose a suitable site for seaweed culture by analysing the criterias for site selection.	(Cr, CO 2, CO 3)
21.	Microbial analysis of fish and fishery products.	(An, CO 4, CO 5)
22.	Elaborate on the organoleptic (sensory) measurement of spoilage. Add a note on on-board handling of wet fish at sea.	(Cr, CO 6, CO 7, CO 8)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Understand the culture of the economically important crustaceans and seaweeds	U	3, 6, 7, 11, 12, 19	12
CO 2	CO 2 Identification of economically important sea weeds PO2, PSO2 E	E	8, 10, 16, 17, 20	11
CO 3	Describe the methods of processing and extraction of different seaweed products	U	8, 10, 16, 17, 20	11
CO 4	Understanding the fundamental principle of bacteriology	U	2, 18, 21	8
CO 5	Describe spoilage causing microorganisms of fish and fishery products	U	2, 18, 21	8
CO 6	Sensory evaluation of fresh fish and fish products	E	1, 4, 5, 9, 13, 14, 22	13
CO 7	Analysing post mortem changes in fish PO2 ,PSO3 An	An	1, 4, 5, 9, 13, 15, 22	13
CO 8	Describing handling of fish onboard , landing centres ,retail outlets and pre-processing centres	U	1, 4, 5, 13, 22	10

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;