

Reg. No

Name

23P2037

M. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023

SEMESTER 2 : AQUACULTURE AND FISH PROCESSING

COURSE : 21P2AQCT07 : PHYSIOLOGY AND PATHOLOGY OF FINFISH AND SHELL FISH

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

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. Explain rumpfdarm. (U, CO 1, CO 5)
 2. Differentiate between endothermy and ectothermy. (U, CO 1, CO 5)
 3. What is corpuscles of stannius? (U, CO 5)
 4. What are Islets of Langerhans? (U, CO 5)
 5. Dozes of ovaprim to be injected to carps (U, CO 5)
 6. Define gas embolism. (U, CO 2, CO 3, CO 4)
 7. Use of lime in disease prevention (An, CO 2, CO 3, CO 4)
 8. Effects of Anchor Worms on culture animals. (An, CO 2, CO 3, CO 4)
 9. Name four bacterial diseases in aquaculture. (U, CO 2, CO 3, CO 4)
 10. Cotton wool disease. (U, CO 2, CO 3, CO 4)
- (1 x 8 = 8)**

PART B

Answer any 6 questions

Weights: 2

11. Role of temperature in disease manifestation in fishes. (An, CO 2, CO 3, CO 4)
 12. Briefly explain circulatory system in crustaceans. (U, CO 1, CO 5)
 13. What is adrenal gland ? Explain. (U, CO 5)
 14. Give an account on pituitary hormones in fishes. (U, CO 5)
 15. Explain the maturity stages of testes in fishes. (U, CO 1)
 16. Blood leucocytes in fishes. (An, CO 2, CO 3)
 17. Whirling disease. (U, CO 2, CO 3, CO 4)
 18. What is larval mid-cycle disease? (U, CO 3, CO 4)
- (2 x 6 = 12)**

PART C
Answer any 2 questions

Weights: 5

19. Effects of environmental factors on growth and metabolism of fish. (An, CO 7)
20. Write an account on the hormonal analogues used for induced breeding in fishes. (U, CO 5)
21. Explain defense mechanism in fish (Non specific and specific immunity). (U, CO 3, CO 4)
22. What are the principles and methods of prophylaxis and chemotherapy of fishes? (U, CO 3, CO 4)
- (5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Understand the basic physiology of fin fish and shell fish and its relation to cultural conditions	U	1, 2, 12, 15	6
CO 2	Identification of pathogens in aquacultural organisms	U	6, 7, 8, 9, 10, 11, 16, 17	11
CO 3	Understand the classification of disease in aquaculture systems	U	6, 7, 8, 9, 10, 11, 16, 17, 18, 21, 22	23
CO 4	Describe the disease control of fin and shellfish, remedial and prophylactic measures	U	6, 7, 8, 9, 10, 11, 17, 18, 21, 22	21
CO 5	Comparative study of physiological characters of fin fish and shell fish	E	1, 2, 3, 4, 5, 12, 13, 14, 20	16
CO 7	Understand the ecophysiology and environmental requirements for the metabolism of aquatic organisms	U	19	5

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