



QP CODE: 21100968

Reg No :

B.Sc DEGREE (CBCS) EXAMINATION, MARCH 2021

Fourth Semester

B.Sc Zoology Model II Aquaculture

Vocational Course - ZA4VOT08 - MICROBIOLOGY, PATHOLOGY AND POST HARVEST TECHNOLOGY

2017 Admission onwards 5A152503

Time: 3 Hours Max. Marks: 60

Part A

Answer any **ten** questions.

Each question carries **1** mark.

- 1. Give a brief account on Thermophilic and psychrophilic bacteria.
- 2. What is TPC?
- 3. What is the objective of Gram's Staining?
- 4. What is death stiffening?
- 5. Name two pathogenic bacteria found in fish.
- 6. Comment on Slow freezing and quick freezing.
- 7. What is freezer burn?
- 8. What is panelling?
- 9. Write a brief note on Colombo curing.
- 10. Briefly explain any two value added product from fishes.
- 11. Write a brief note on Dactylogyrosis, symptoms and treatment.
- 12. Briefly explain chemical hazard with examples.

 $(10 \times 1 = 10)$

Part B

Answer any **six** questions.

Each question carries **5** marks.



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- 13. Explain different growth phases of bacteria relating to a bacterial growth curve.
- 14. Explain faecal indicator organisms and their significance.
- 15. Give a brief account on the biochemical composition of fish.
- 16. Distinguish between Chilling and Freezing. Comment on their advantages and disadvantages.
- 17. Comment on drip loss. Explain different measures to minimise drip loss.
- 18. Comment on Canning and its advantages. Explain Can cooling.
- 19. Elaborate common defects in cured products.
- 20. Explain IHHNV and WSSV diseases.
- 21. Write a note on any two fungal diseases of fish.

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 10 marks.

- 22. What is sterilisation? Give an account of different sterilisation techniques used in microbiological studies.
- 23. Explain the structure and functioning of different types of freezers.
- 24. Give an account on the preparation and uses of different Fishery byproducts.
- 25. Which are the common crustacean parasites of fishes? Explain the damages caused and control measures.

 $(2 \times 10 = 20)$

