

Reg. No

Name

M. Sc DEGREE END SEMESTER EXAMINATION - MARCH 2020
SEMESTER 4 : AQUACULTURE AND FISH PROCESSING
COURSE : 16P4AQCT14 : FISH MICROBIOLOGY AND QUALITY ASSURANCE
(For Regular - 2018 Admission & Supplementary 2017/2016 Admissions)

Time : Three Hours

Max. Marks: 75

Section A**Answer any 8 (2 marks each)**

1. What are the different methods used for the estimation of bacteria?
2. What is Listeriosis ?
3. Write the name of the most drought resistant pathogenic bacteria.
4. Explain the principles of Gram staining.
5. Explain the significance of TVBN.
6. Explain the cleaning and disinfection procedures practiced in seafood industry.
7. Pink discolouration in cured fish.
8. Importance of quality of ice
9. What is GMP?
10. What is SSOP?
11. Name two seafood toxins
12. What are ISO standards?

(2 x 8 = 16)

Section B**Answer any 7 (5 marks each)**

13. Explain the spore staining method.
14. Describe the effect of salting on bacteria.
15. What are the quality parameters of dry fish?
16. What is the difference between total coliforms and faecal coliforms. Give *two* examples
17. Why water quality is important in Seafood industry?
18. Disinfection methods used for treating waste water from processing plant.
19. Comment on EU 98/83 standards.
20. Comment on national standards for seafood.
21. What are pre requisite programmes of HACCP.
22. Explain the chemical hazards in farmed fish.

(5 x 7 = 35)

Section C**Answer any 2 (12 marks each)**

23. Elaborate on the various methods of fish preservation.
24. Describe the methods of isolation and identification of Salmonella in seafood.
25. Quality issues of fish and fishery products
26. Elaborate on Hazard Analysis and Critical Control Point System in seafood industry.

(12 x 2 = 24)