

C 5662

(Pages : 3)

Name.....

Reg. No.....

**SECOND SEMESTER B.VOC. DEGREE EXAMINATION, APRIL 2021**

Fish Processing Technology

GEC 2FM 02—FOOD MICROBIOLOGY

Time : Three Hours

Maximum : 80 Marks

**Section A***Answer all questions.**Each question carries 1 mark.*

1. The time required to kill micro-organism at a given lethal temperature is known as :
  - a) Z value.
  - b) D value.
  - c) C value.
  - d) None of the above.
2. The target micro-organism in canning is :
  - a) *Clostridium botulinum*.
  - b) *Streptococcus thermophilus*.
  - c) PA 3679.
  - d) *Lactobacillus bulgaricus*.
3. *Clostridium botulinum* mainly result in spoilage of \_\_\_\_\_ foods.
  - a) High acid Food.
  - b) Acidic Food.
  - c) Medium acid Food.
  - d) Low acid Food.
4. The temperature resistance of micro-organism in high acid food is :
  - a) High.
  - b) Medium.
  - c) Low.
  - d) No effect.
5. In bread manufacturing, alcoholic fermentation is carried out by :
  - a) *Streptococcus thermophilus*.
  - b) *Saccharomyces cerevisiae*.
  - c) *S. carlsbergensis*.
  - d) *Lactobacillus bulgaricus*.
6. Thermophiles grows at :
  - a) 8 to 45°C.
  - b) 25 to 30°C.
  - c) 0 to 20°C.
  - d) 50-60°C.

**Turn over**

7. The growth of aerobic food spoilage and pathogenic micro-organisms can be suppressed by :
- a) Humectants.
  - b) Exhausting.
  - c) Both (a) and (b).
  - d) None of above.
8. Pasteurization is the heat treatment designed primarily to kill :
- a) Vegetable forms of micro-organisms.
  - b) All form of micro-organisms.
  - c) Spore.
  - d) None of above.
9. Lactic acid bacteria include :
- a) *Lactococcus lactis*.
  - b) *Lactococcus cremoris*.
  - c) *Bifido bacterium*.
  - d) All above.
10. *Acetobacter aceti* converts \_\_\_\_\_ into acetic acids.
- a) Ethyl alcohol.
  - b) Glucose.
  - c) Methyl alcohol.
  - d) Starch.

(10 × 1 = 10 marks)

### Section B

Answer any **eight** questions.  
Each question carries 2 marks.

11. What happens during lag phase of bacterial growth cycle ? Mention briefly.
12. What is a bacteriocidal agent ? Give an example.
13. Define bacteriostatic agent. Give an example.
14. What is complex culture media ? Give example.
15. Define generation time of bacteria.
16. Define Disinfection. Name some disinfectants.
17. What is meant by food spoilage ?
18. What is Salmonellosis ?
19. Write any *two* international food laws.

20. What are Heterotrophs ?
21. Name four important bacteria associated with seafood.
22. Name some spoilage microorganisms of milk.

(8 × 2 = 16 marks)

### Section C

*Answer any **six** questions.  
Each question carries 4 marks.*

23. Spoilage of canned foods.
24. Food preservation using dehydration.
25. Log phase of a bacterial growth curve.
26. Importance of sanitation and hygiene in food science.
27. Effect of temperature on growth of microbes.
28. HACCP
29. Morphological forms of bacteria.
30. What is Disinfection ? Explain various methods of disinfection ?
31. Food preservation using radiation.

(6 × 4 = 24 marks)

### Section D

*Answer any **two** questions.  
Each question carries 15 marks.*

32. Explain methods of isolation and identification of bacteria related to food.
33. Explain foodborne diseases.
34. What is Virus ? Classify viruses. Explain the strategies adopted in laboratory diagnosis of viruses.
35. Explain physical methods of Food Preservation.

(2 × 15 = 30 marks)