Q. 4

### TM244519M

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## MASTER'S DEGREE (C.S.S) EXAMINATION, MARCH 2024 2022 ADMISSIONS REGULAR

# SEMESTER IV - CORE COURSE Clinical Nutrition And Dietetics ND4C13TM20 - Food Microbiology and Quality Control

Time: 3 Hours

Maximum Weight: 30

#### Part A

### I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

- 1. Write a short note on bacteria.
- 2. Write a note on contamination of food from soil and water.
- 3. Define food spoilage.
- 4. Write a note on irradiation and chemical preservation techniques used to preserve the food.
- 5. Write a note on spoilage of cereals.
- 6. Briefly explain on bacteria culture techniques.
- 7. Enumerate the general characteristics of food infection.
- 8. Write a note on cleaned in placed systems.
- 9. Write a note on FDA.
- 10. Write a note on bioengineered probiotics.

#### Part B

### II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

- 11. How does inhibitory substances and biological structures affect the survival and growth of microorganism?
- 12. Write a note on enzymatic spoilage of food.
- 13. Elaborate on the use of low temperature in food preservation.
- 14. Describe the methods of isolation and detection of microorganism.
- 15. Discuss on Yersinia enterocolitica gastroenteritis.
- 16. Discuss on sanitizing process of equipment that come in contact with the food.
- 17. Explain the government regulatory practices and policies.
- 18. Explain the health benefits of probiotics .

#### Part C

### III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

- 19. Explain food contamination. Detail on the contamination of food from water, air and sewage.
- 20. Discuss the role of microorganism in spoilage of meat and fish.
- 21. Explain bacterial food borne intoxication under the following headings: i) Causative organism ii) Foods implicated in the outbreak iii) Symptoms iv) Preventive Measures
- 22. Discuss on microbiological quality standards of food.

