D 130965 **(Pages : 2)** **Name.....**

Reg. No.....

THIRD SEMESTER B.VOC. DEGREE EXAMINATION, NOVEMBER 2025

Dairy Science and Technology

SDC3DT11—FUNDAMENTALS OF MICROBIOLOGY

(2021 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

All questions can be answered
Each question carries 2 *marks.*
Ceiling 20 *marks*

1. Explain different methods of reproduction in fungi.
2. Classify bacteria based on their temperature requirements for growth.
3. Name any *four* milk borne diseases and their causitive organisms.
4. How did Pasteur's experiments countered the theory of spontaneous generation ?
5. What is Bacteriocin ?
6. Difference between food borne intoxication and toxi infection.
7. Define autoclaving and ideal physical parameters of autoclaving
8. Define Bactofugation.
9. Write two techniques for isolation of bacteria.
10. What are the different locomotory structures of bacteria ?
11. Differentiate transcription and translation.

Turn over

12. Write down the selective media used in the isolation of :

    (a) M. tuberculosis.

    (b) Salmonella.

    (c) Gram positive Staphylococci.

    (d) Fungi.

Section B (Paragraph)

All questions can be answered.
Each question carries 5 *marks.*
(*Ceiling* 30 *marks*)

13. Discuss gram staining and its role in differentiating types of bacteria.

14. Compare and contrast the types of media used for bacterial growth.

15. Analyze the methods used for measuring bacterial growth in laboratory settings.

16. Write on the advantages and disadvantages of standard plate count.

17. Write down the difference in cell wall of gram positive and gram-negative organisms

18. Explain difference between endospores and exospores

19. Discuss the methods used in the control of psychotrophs.

Section C (Essays)

Answer any **one** *of the following.*

20. Explore the scope and role of microorganisms in the dairy industry.

21. Discuss the chemical composition of milk and its susceptibility to microbial spoilage. Briefly explain the equipments used in bacteriological techniques.

(1 × 10 = 10 marks)