D 130671 **(Pages : 2)** **Name.....**

Reg. No.....

FIFTH SEMESTER B.VOC. DEGREE EXAMINATION, NOVEMBER 2025

Dairy Science and Technology

SDC5DT23—MICROBIOLOGY OF MILK AND ITS PRODUCTS

(2021 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A

All questions can be answered.
Each question carries 2 *marks.*
Ceiling 25 *Marks.*

1. What is Lactoferrin ?
2. Name some pathogenic organisms that are not destroyed by pasteurization.
3. Explain frozen starter cultures.
4. What are the causes of bitterness of cream ?
5. Discuss the bacteriology of heat-treated milks.
6. What are the microorganisms incorporated into milk from the teat surface of the animal ?
7. What is probiotic ice cream ?
8. What are the common causes of deterioration of cream ?
9. Explain microflora of kefir grains.
10. Explain grading of cream.
11. What are the secondary microbes develops in cheese during the ripening process ?
12. Describe the techno-microbial features of Cheddar cheese.
13. What are Hecterophages ?
14. Explain the effect of somatic cell count of milk on composition and during ripening of Swiss type cheese.
15. What is the role of microbial cultures on the acceleration of ripening of cheese ?

Turn over

Section B (Paragraph)

All questions can be answered.
Each question carries 5 *marks.*
Ceiling 35 *Marks.*

16. Explain microbiological conditions attributed to storage of raw milk under refrigerated conditions.
17. Explain problems associated with occurrence of bacteriophage on starter culture and what are the precautionary measures ?
18. Describe the nutritive and therapeutic values of fermented milk.
19. How does microbial growth occur in milk during storage and transport ?
20. Explain spoilage of cream.
21. Explain non-specific defense mechanisms in raw milk.
22. Explain microflora of pasteurized milk.
23. What are the sources of contamination in ice-cream production ?

Section C (Essays)

Answer any **two** *of the following.*
Each question carries 10 *marks.*

24. Explain in detail about the factors influencing growth of micro-organisms in cheese.
25. Write an essay on lactic fermentation.
26. Evaluate the importance of sanitation practices at various stages of milk production and processing, and how these practices contribute to the quality and safety of dairy products.
27. Analyze the significance of milk-borne diseases, their impact on public health, and the role of microbiology in preventing these diseases.

(2 × 10 = 20 marks)