

Roll.No.

24UCHET5B01

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

B.Sc.Chemistry - END SEMESTER EXAMINATIONS - NOVEMBER 2025  
SEMESTER - V

**24UCHET5B01 - Dairy Chemistry**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. How the standard solutions and reagents are prepared and give its various analysis in milk?
2. Compare enzymes and immobilized enzymes. Highlight role of milk enzyme in food industry with suitable examples.
3. What is meant by trace elements? How is it distributed in milk and give its importance?
4. Write a note on Carotenoids in Milk.
5. Describe the production of different types of cheese.
6. Explain chemistry of the creaming process.
7. Describe the various environmental issues in effluent discharge from dairy industry.
8. How will you predict the shelf life behaviour of milk and milk products?

### Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Describe the composition and structural elements of milk.
10. Classify the Milk lipids and give their various chemical properties.
11. Draw the molecular structure of vitamins present in milk and milk products. Discuss the various factors affecting their levels.
12. Explain the following Physicochemical changes during the manufacture and storage of traditional dairy products  
i) Protein Denaturation ii) Coagulation iii) Maillard reactions,  
iv) Lactose fermentation v) Fat breakdown.
13. Explain in detail about the role of national and international food regulatory systems on milk and milk product safety, quality assurance and control.

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