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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
 [AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
 Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 90020

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2025

Seventh Semester

Biotechnology

U19BTV43 – DAIRY TECHNOLOGY

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	List the major biological properties of milk.	2	K2	CO1
2.	Quote the FSSAI standards of milk to be monitored and controlled.	2	K1	CO1
3.	Tabulate the pros and cons of thermal processing of milk.	2	K2	CO2
4.	Identify the causes of milk fouling.	2	K2	CO2
5.	How condensed milk is prepared?	2	K1	CO3
6.	Is Paneer a fermented product? Justify your answer.	2	K2	CO3
7.	Differentiate between Whole and Skimmed milk.	2	K2	CO4
8.	State the health benefits of Oat milk.	2	K2	CO4
9.	Emphasize the objectives of aseptic food processing in dairy packaging.	2	K1	CO5
10.	List some of the best practices followed in managing waste dairy package materials.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Portray the different constituents of milk. Comment on its nutritional value and health benefits.	13	K1	CO1

(OR)

	b)	i. Narrate the detailed steps involved in the milk procurement process in a dairy industry.	7	K1	CO1
		ii. Brief on the assessment of the quality of the milk at the collection point.	6		
12.	a)	Depict the step-by-step process of milk storage and transportation in a dairy supply chain.	13	K2	CO2
		(OR)			
	b)	Write notes on the following milk processing techniques:		K2	CO2
		i. Centrifugation	5		
		ii. Homogenization	4		
		iii. Pasteurization	4		
13.	a)	Illustrate the production methodology of Butter in a dairy industry with a process flow diagram.	13	K2	CO3
		(OR)			
	b)	i. Draw the process flow sheet of large-scale ice cream manufacturing and explain in detail.	6	K2	CO3
		ii. Highlight the difference between the manufacturing of icecream and kulfi.	7		
14.	a)	Compare and contrast the production process of Casein and Whey concentrate. Reproduce the applications of each in food industry.	13	K2	CO4
		(OR)			
	b)	Schematically explain the sequence of events involved in the mass production of Soya milk.	13	K2	CO4
15.	a)	i. Categorize the different types of packing materials used in dairy industry and brief each.	10	K2	CO5
		ii. Quote the advantages of aseptic food packaging for dairy products.	3	K1	
		(OR)			
	b)	Summarize the significance of different dairy products in promoting human health.	13	K2	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16.	a) Interpret the different non thermal milk processing techniques and explain in detail. Display the pros and cons of each of the method.	15	K2	CO2

(OR)

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| b) | i. | Classify the different types of Cheese along with its applications. | 8 | K2 | CO3 |
| | ii. | Compare the traditional and conventional methods of cheese production process. | 7 | | |
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