SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. III Year II Semester Regular & Supplementary Examinations June-2025
DAIRY AND FOOD ENGINEERING
(Agricultural Engineering)

Time: 3 Hours   **Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1	a	What is NDDB? When this act was established in India.	CO1	L1	6M
	b	Give the classification of food with respect to spoilage along with examples.	CO1	L2	6M

OR

2	a	List out the Physical, chemical and biological methods of food preservation.	CO2	L1	6M
	b	Define milk and write about the importance of milk in national scenario.	CO2	L2	6M

UNIT-II

3	a	Explain the milk silos and refrigerated storage tank.	CO3	L1	6M
	b	Draw the process flow chart for preparation of ice cream.	CO3	L2	6M

OR

4	a	Explain the differences between blanching, pasteurization and sterilization.	CO3	L2	6M
	b	Draw the flow chart of HTST pasteurization system and explain the flow process.	CO3	L2	6M

UNIT-III

5	a	Explain the working principle of Disc centrifuge with neat sketch.	CO4	L2	6M
	b	What is homogenization of milk and why homogenization is required in milk processing.	CO4	L2	6M

OR

6	a	What are the basic requirements of food packaging.	CO4	L2	6M
	b	What are the factors considered while planning dairy building.	CO5	L2	6M

UNIT-IV

7	a	Define evaporation. Write the objectives of evaporation.	CO6	L2	6M
	b	Explain the design of multiple effect evaporator with neat sketch and related expressions.	CO6	L2	6M

OR

8	a	Explain forced circulation evaporator with neat sketch.	CO6	L2	6M
	b	Explain agitated thin film evaporator with neat sketch.	CO6	L2	6M

UNIT-V

9	a	Explain the freezing of foods. Enlist the freezing equipment's.	CO6	L2	6M
	b	Write short notes on fluidized bed freezer.	CO6	L2	6M

OR

10	a	Discuss membrane processing and write the uses of membrane filtration.	CO6	L2	6M
	b	What are the methods for controlling water content and explain the effect of water content during storage.	CO6	L2	6M

*** END ***