

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch – FOOD TECHNOLOGY MANAGEMENT

DAIRY PROCESS ENGINEERING & PRODUCT PROCESS TECHNOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	What is the maximum allowable limit of bacterial count in pasteurized milk according to National/International standards? a) 10,000 CFU/ml b) 20,000 CFU/ml c) 30,000 CFU/ml d) 50,000 CFU/ml	K1	CO1
2	What is the freezing point of milk? a) -0.50°C to -0.60°C b) -0.20°C to -0.30°C c) 0.00°C to 0.10°C d) -1.00°C to -1.10°C	K2	CO1
3	Which engineering process is used to create a uniform particle size in powdered infant formula? a) Spray drying b) Fermentation c) Extrusion d) Churning	K1	CO2
4	Which microorganism is primarily targeted and reduced by the pasteurization process? a) <i>Lactobacillus</i> b) <i>Salmonella</i> c) <i>Streptococcus</i> d) <i>Bifidobacterium</i>	K2	CO2
5	What is the primary component of milk that determines the richness of cream? a) Protein content b) Fat content c) Sugar content d) Water content	K1	CO3
6	What is the typical fat content of butter? a) 20-30% b) 30-40% c) 80-85% d) 90-95%	K2	CO3
7	What happens to the starches in cereal when mixed with milk? a) They dissolve completely b) They gelatinize and absorb moisture c) They turn into protein d) They lose their nutritional value	K1	CO4
8	Which process is crucial for thickening of milk when making rabri? a) Fermentation b) Boiling and reducing c) Churning d) Freezing	K2	CO4
9	What is the primary cooking method used for Channapodo? a) Boiling b) Frying c) Baking d) Steaming	K1	CO5
10	Which ingredient is added to milk to facilitate coagulation during cheese making? a) Sugar b) Rennet c) Salt d) Vinegar	K2	CO5

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SECTION - B (35 Marks)
 Answer ALL questions
 ALL questions carry EQUAL Marks (5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Explain the effects of processing on the constituents of milk.	K2	CO1
	(OR)		
11.b.	Infer on the quality standards for raw and packaged milk.		
12.a.	Construct the methods of determining lethality.	K3	CO2
	(OR)		
12.b.	Identify the differences between Spray dried and Evaporated Milk.		
13.a.	Examine cream separation methods & extend on cream separators.	K4	CO3
	(OR)		
13.b.	List the equipment's involved in butter preparation.		
14.a.	Illustrate on the types of Khoa preparation.	K5	CO4
	(OR)		
14.b.	Interpret on sensory requirements of heat desiccated products.		
15.a.	Discuss on the shelf life & defects of chhana products.	K5	CO5
	(OR)		
15.b.	Appraise on the desirable and undesirable characteristics of acid coagulated product.		

SECTION -C (30 Marks)
 Answer ANY THREE questions
 ALL questions carry EQUAL Marks (3 × 10 = 30)

Question No.	Question	K Level	CO
16	Discuss on the role of bioactive components in preservation and its effect on the nutritional properties of milk and its product.	K5	CO1
17	Elaborate on thermal processing of milk and its impact.	K6	CO2
18	Examine the factors affecting skimming efficiency and richness of cream.	K4	CO3
19	Explain the product description for the following i. Burfi ii. Peda iii. Kalakand iv. Rabri and Basundi	K2	CO4
20	Criticize on the physiochemical changes in paneer during manufacturing and storage.	K5	CO5