

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024
(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)

Module No.	Question No.	Question	K Level	CO
1	1	Milk is an emulsion in which a. Milk solids are dispersed in water b. Milk fat is dispersed in water c. Casein micelles are dispersed in water d. Gases are dispersed in water	K1	CO1
	2	Identify the property of milk that is used to design the Milkotester in modern method of milk analysis. a. Optical properties b. Electrical properties c. Thermal properties d. Conductance properties	K2	CO1
2	3	Recall the FSSAI standards for percentage of fat and SNF in standardized milk a. 4.0 and 9.0 b. 4.5 and 8.5 c. 3.0 and 9.0 d. 3.5 and 8.5	K1	CO2
	4	What is the enzyme naturally present in raw milk, used as an indicator of proper milk pasteurization? a. Alkaline Phosphate b. Alkaline Peptidase c. Alkaline lipase d. Alkaline Phosphatase	K2	CO2
3	5	Skimming efficiency is influenced by the a. Milk storage temperature and time b. Milk fat and total solid content c. Milk preheating and skimming d. Milk solid not fat content	K1	CO3
	6	The FSSAI specification for moisture content in butter is not more than.... a. 1.25% b. 10.0% c. 12.0% d. 16.0%	K2	CO3
4	7	Which of the below given product is a heat desiccated dairy product? a. Paneer b. Basundi c. Yoghurt d. Channa	K1	CO4
	8	Rabri is a concentrated whole milk product with thickened malai layer. a. Salted b. Savoury c. Sweetened d. Unsweetened	K2	CO4
5	9	Rancid flavor defect in paneer is due to a. High fat content b. Lipase action c. Increased coagulation d. None of the above	K1	CO5
	10	An example of unripened cheese is a. Cheddar b. Blue c. Cheese d. Cottage	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Examine the significance of viscosity of milk and milk products for designing dairy equipment.	K3	CO1
	(OR)			
	11.b.	Choose any two bioactive components used in milk preservation and comment on its effect on the physiochemical and microbial properties of milk.		
2	12.a.	Identify the significance of the UHT processing of liquid milk.	K3	CO2
	(OR)			
	12.b.	Compare and contrast the compositional profile and product description of condensed and evaporated milk.		
3	13.a.	Infer the stepwise procedure for production of ghee.	K4	CO3
	(OR)			
	13.b.	Describe the FSSAI specifications for butter and the composition of the various types of butter.		
4	14.a.	Examine the role of ingredients and processing operations in burfi production.	K4	CO4
	(OR)			
	14.b.	Infer the impact of mechanization on khoa manufacturing.		
5	15.a.	Assess the different types of cheese.	K5	CO5
	(OR)			
	15.b.	Appraise the method of manufacture of Channa and the defects observed in this product.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyse and report the significant features of the current status of dairy processing and the Government initiatives to promote dairying at the national level.	K4	CO1
2	17	Conclude the impact of the following techniques in dairy processing a. Flash pasteurization b. Sterilization of milk c. Stassanization	K4	CO2
3	18	Explain the process of cream separation adopted in the dairy units and the types of consumer cream products available in the market.	K4	CO3
4	19	Evaluate the interaction between milk and cereal constituents and the method of preparation of kheer.	K5	CO4
5	20	Give your opinion on the following: i) desirable and undesirable characteristics of acid coagulated products. ii) sensory requirements of acid coagulated products. iii) packaging of acid coagulated products.	K5	CO5