



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING

THIRD SEMESTER – NOVEMBER 2023

PFP 3501 – DAIRY AND BEVERAGE PROCESSING

Date: 30-10-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

PART – A

(10 x 3 = 30 Marks)

Q. No Answer **ALL** questions

1	State the reasons for determining the physiochemical properties of milk.
2	Differentiate between natural and developed acidity.
3	What is HTST and LTLT?
4	Define standardized, toned and double toned milk.
5	Draw the flow chart for production of yoghurt.
6	Write the dairy effluent treatment methods.
7	Classify beverages.
8	What is ale yeast?
9	What is an aquifer?
10	List the types of water contaminants.

PART – B

(5 x 8 = 40 Marks)

Answer ALL the questions

11.	(a)	Write short notes on density and specific gravity as significant physiochemical properties of milk. (OR)
	(b)	Enumerate the challenges, problems and way forward for the Indian dairy sector industry.
12.	(a)	Elaborate on the factors to be considered in determining the number of milk collection centres for an area and selection of site for the milk collection center. (OR)
	(b)	Write a note on filtration, clarification and homogenization in milk processing.
13	(a)	Describe the stepwise procedure in paneer manufacture. (OR)
	(b)	Discuss CIP process for cleaning and sanitation of the dairy industry.
14	(a)	Outline the process of conversion of coffee bean to powder. (OR)
	(b)	Formulate a herbal beverage and explain the process of manufacture.
15	(a)	Write down the Indian standards for checking the quality of potable water. (OR)

	(b)	Elaborate on desalination, its scope and limitations in addressing the water crisis.	
		PART – C	(2 x 15 = 30 Marks)
Answer any TWO questions			
16		Discuss i) oxidation-reduction potential of milk. ii) factors affecting freezing point of milk.	(10 +5 marks)
17	(a)	Elaborate on the process of clean milk production.	(10 marks)
	(b)	Discuss the role of the various ingredients in ice cream manufacture.	(5 marks)
18		Write in detail about the process of tea manufacture and the types of tea.	
19		Discuss any five platform tests conducted on receipt of milk.	

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