

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

THIRD SEMESTER – NOVEMBER 2018

17FPF3MC01– DAIRY AND BEVERAGE PROCESSING

Date: 25-10-2018

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

Part A

Answer ALL the questions.

10 x 2 =20 marks

1. State four reasons for determining the physicochemical properties of milk.
2. What is thermal conductivity of milk?
3. Mention any four fermented beverages giving their sources.
4. What is dairy effluent?
5. List the components of tea leaves that affect the brewing quality.
6. Give the structure of a coffee berry.
7. What is wine? Name the types of wine obtained during the wine making process.
8. Name the two types of yeasts employed in beer making and give their significance.
9. What is the test employed to identify the completion of pasteurization of milk?
10. Define packaged drinking water.

Part B

Answer any EIGHT questions.

8 x 5= 40 marks

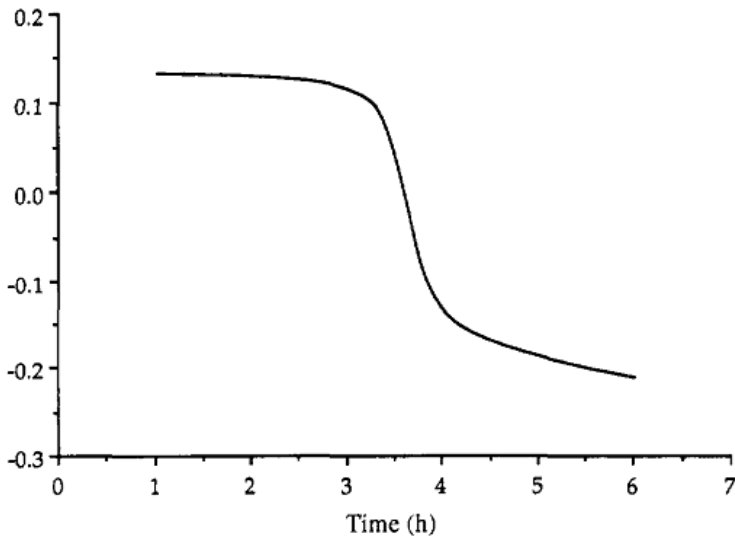
11. Comment on surface tension and density of milk.
12. Write short notes on acidity and pH of milk.
13. Explain the activities involved in milk collection at a dairy cooperative society.
14. Write the protocol for clot on boiling test and Gerber test for milk fat.
15. Write a brief account on the legal standards of milk production.
16. Explain the different methods of wine press adopted in the wine making process.
17. Give a brief account on the composition of coffee and their health implications.
18. Illustrate the beer manufacturing sequence with a suitable flowchart.
19. Discuss the pasteurization of milk and its types.
20. What are the three major classes of tea? Highlight their differences.
21. Give a brief account on the role of different ingredients used in the ice cream making process.
22. What are nonalcoholic beverages? Give its classification.

Part C

Answer any FOUR questions.

4 x 10 = 40 marks

23. As depicted in the figure below there is a decrease in this physiochemical property of milk caused by the growth of *Lactococcus lactis* at 25°C. Elaborate on this property and its significance as an index of the bacterial quality of milk.



24. In the dairy industry the system of cleaning and sanitization does not require the daily dismantling of dairy equipment. Discuss in this regard the method adopted to achieve the required degree of cleanliness and sanitation of the dairy equipment.

25. What are the sequences of steps involved in manufacturing packaged drinking water?

26. Enumerate the processing operations of coffee berries from the farm to the cup.

27. Explain the journey of grapes from the vine to the glass.

28. Describe the role of the principal ingredients used in the beer making process.
