



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

**FIRST SEMESTER – APRIL 2019**

**18PFP1MC02– INTRODUCTION TO FOOD PROCESSING**

Date: 04-04-2019  
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

**Part A**

**Answer ALL THE questions.**

10 x 2 = 20 marks

1. What are called plastic fats?
2. Mention various factors affecting order of a reaction.
3. List any four uses of blanching.
4. Mention the various high temperature processing techniques used in dairy industry.
5. Write any four factors contributing to microbial interaction in foods.
6. Name the various fruit based enzymes.
7. What is a stage-gate process in new product development?
8. Draw a sample sensory evaluation score card.
9. What are the drawbacks of using paper for food packaging?
10. What is shelf-life testing?

**Part B**

**Answer ANY EIGHT questions.**

8 x 5 = 40 marks

11. How will you calculate the rate of aggregation using Smoluchowski's theory?
12. Derive an expression to determine the effect of temperature on food processing.
13. Describe various types and applications of membrane filtration technique in food industries.
14. Write short notes on freezing curve.
15. Discuss the process involved in canning of foods with suitable illustration.
16. Bring out the applications of food irradiation.
17. Mention the various uses of fermentation technology in food industry.
18. How are new food product classified? What are its characteristics?
19. Design a questionnaire for market research to identify the attitude of consumers towards novel ready to eat foods.
20. Bring out the significance of MAP in food industry.
21. Highlight the general considerations to be made to use a packaging material for food packaging.
22. Write short notes on importance of food labeling in making consumer's healthy food choices.

### Part C

**Answer ANY FOUR questions.**

4x10 = 40 marks

23. a) Describe in detail any five unit operations used in food processing.  
b) What are lyophilic and lyophobic colloids? (7+3)
24. a) List any five factors responsible for gel formation.  
b) Explain the importance of DLVO theory in determining the stability of colloids. (4+6)
25. Write a detailed note on dehydration as a food preservation technique.
26. Discuss the applications of enzymes in baking industry.
27. Describe Product Life Cycle and highlight how it affects consumer's adoption to a new food product in the market.
28. Write a detailed note on active packaging and its role in preserving food.