# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034



## M.Sc. DEGREE EXAMINATION - FOOD CHEMISTRY AND FOOD PROCESSING

### THIRD SEMESTER - NOVEMBER 2018

## 16/17PFP3MC03 - PLANT PRODUCT PROCESSING

Date: 29-10-2018	Dept. No.	Max. : 100 Marks

Time: 09:00-12:00

#### Part A

## Answer all the questions.

 $(10 \times 2 = 20 \text{ marks})$ 

- 1. List the steps involved in malting of wheat.
- 2. Mention the different methods of utilization of waste generated from processed cereals.
- 3. List any four antinutritional factors present in pulses.
- 4. What is a multieffect evaporator?
- 5. Name any four types of equipment used for storage of fruits and vegetables.
- 6. Distinguish between syrups and cordials.
- 7. Define winterization.
- 8. List any four fat based adjuncts used in food industry.
- 9. What is the significance of tempering in chocolate making process?
- 10. Mention the two main extraction techniques adopted in sugar processing units.

### Part B

### Answer any eight questions.

 $(8 \times 5 = 40 \text{ marks})$ 

- 11. What are the various physicochemical properties of cereal and cereal products?
- 12. 'The ancient, healthy and climate-smart millet is back on our plates' Comment
- 13. Give the classification of spices and highlight the significance of any two basic spices.
- 14. Write a brief note on the action on flavonoids during fermentation of cocoa beans.
- 15. Discuss the role of aseptic canning technology in preserving fruits and vegetables.
- 16. Write short notes on theory of gel formation.
- 17. Draw the flow chart of jam processing and highlight the various tests used to evaluate the quality of jams.
- 18. Bring out the manufacturing process of margarine.
- 19. Illustrate the preparation of protein concentrates and its uses in food industry.
- 20. Explain briefly the protease inhibitors present in pulses.
- 21. Describe the nutritional significance of pulses.
- 22. Briefly discuss the different stages of cocoa fermentation.

## Part C

## Answer any four questions.

 $(4 \times 10 = 40 \text{ marks})$ 

- 23. Describe in detail the role of various equipment used in wheat processing with a suitable flow chart.
- 24. Enumerate chocolate making process using a suitable flow diagram.
- 25. Describe the various techniques of preserving fruits and vegetables with examples.
- 26. Elaborate the sequential processes involved in extraction and chemical refining of oils.
- 27. Illustrate the processing involved in manufacturing peanut butter.
- 28. Discuss in detail the role of aromatic spices in food application.

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