



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – APRIL 2018

FP 3807- AGRO PRODUCTS AND PROCESSING

Date: 24-04-2018
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

Part A

Answer all the questions.

10 x 2 = 20 marks

1. List any four operations involved in the handling of raw materials.
2. Mention the principle employed in a disc separator with a suitable example.
3. Give any two differences between climacteric and non-climacteric fruits.
4. Diagrammatically represent pollination facilitating fruit development.
5. Mention the types of yeasts employed in the manufacture of wine.
6. Mention any four toxic constituents in pulses.
7. List any four methods of eliminating the toxic constituents present in pulses.
8. What is the use of a plunger in fruit ripening?
9. Define Brix Acid ratio.
10. What contributes to the turgor of the fruits and vegetables?

Part B

Answer any eight questions.

8 x 5 = 40 marks

11. What is Multiple Effect Evaporation in sugar processing?
12. Write a brief note on open pan crystallization in sugar manufacture.
13. What are the preparatory operations for fruits before freezing?
14. What is "Threshing" of grains? Give a brief account on the types of threshing techniques adopted for pulses.
15. Write a brief note on the types of rancidity in fats and oils.
16. Discuss the typical solvent extraction system of oil from its kernel using a suitable flowchart.
17. Write a note on Pseudo cereals and their nutritional importance.
18. What is the purpose of water in the bread making process?
19. Write short notes on the following;
 - a. Fractionation
 - b. Hydrogenation
20. What are the steps employed in handling of raw materials for sugar processing?
21. Briefly explain the stages of sugar cookery and add a note on sugar coated products.
22. Give a brief outline of the manufacturing process of carbonated soft drink beverages.

Part C

Answer any four questions.

4 x 10 =40 marks

23. Enumerate the unit operations employed in the manufacture of any product using cereal grain as the main ingredient. Illustrate a suitable label on the packaging of the product chosen.
24. Discuss the following unit operations in a food manufacturing plant:
 - a. Membrane processes
 - b. Raw Material handling
 - c. Heat Exchanger
 - d. Controlling
25. Explain the process of oil refining techniques after the extraction from the oilseeds.
26. Discuss any two products obtained by processing any two of the following:
 - a. Peanut
 - b. Cashew nut
 - c. Coconut
27. How is sugar manufactured from sugarcane and refined for consumption in the form of crystals?
28. Discuss the structure of a wheat grain with a suitable diagram. Classify the types of wheat grains.

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