



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – NOVEMBER 2016

FP 4806 - CHEMISTRY OF FOOD ADDITIVES

Date: 12-11-2016
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part A

Answer all the questions.

10x2=20

1. Define Intentional additives.
2. Give the structure of Chlorophyll.
3. What is curing in processing of meat?
4. Mention the sources and applications of Lycopene.
5. What is antioxidant? Give an example.
6. Mention any two important bitter compounds permitted as additives.
7. Write a note on ethanol fermentation.
8. Define sweetness index.
9. What is the structure of K-sucralose?
10. Write a note on pH control in anticaking agent.

Part B

Answer any eight questions.

8x5=40

11. Explain briefly on Betalains and the effect on pH and heat on its stability.
12. What is the role of sorbic acid in food? And how it acts as a preservative?
13. Write briefly about the factors involved in stability of pigments.
14. Write short note on oxymyoglobin.
15. Alpha-lipoic acid is an ideal antioxidant- Give reasons.
16. Explain the extraction of Carotenes from carrot.
17. Write short notes on sour and salty taste modalities.
18. Explain the beta- oxidation of fatty acids.
19. Give the structure of Nootketone and give its role in beverages.
20. Write a note on Saccharin and its uses.
21. Describe any two natural intense sweeteners.
22. Explain the role of buffering agents in foods with example.

Part C

Answer any four questions.

4x 10=40

23. What is the effect of Chlorophyll influencing pH during processing?
24. What are unintentional additives? Describe the sources of it with suitable example.
25. Discuss the following
 - i) The structure of - tocopherol
 - ii) Classification of tocopherol
 - iii) Mechanism of - tocopheryl quinone.
26. i) How we can decide that food additives are safe or unsafe?
 - ii) What is the role of WHO in the use of food additives?
27. Discuss the factors influencing for gas production in yeast-leavened Dough's and gas retention in Dough's?
28. i) "If benefits are more than risk" what is the meaning of this with relevant to food.
 - ii) What type of synthetic coloring agents are used in the food industry?
