



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034
DEGREE EXAMINATION - FOOD CHEMISTRY AND FOOD PROCESSING

FIRST SEMESTER - APRIL 2014

FP 1806/1801 - ORGANIC CHEMISTRY OF FOOD - I

Date : 29/03/2014
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

Part A

Answer ALL THE questions.

10x2=20 marks

1. Give two uses of gum Arabic.
2. Distinguish between antioxidant and prooxidant.
3. What is a glycoside? Give the structure of α -D-Glucopyranoside.
4. Write the chemistry of Ninhydrin test for α -amino acid.
5. What is denaturation of protein? Mention two types of denaturing agents.
6. What is the need for enzyme inactivation?
7. Mention the role of the enzyme lyases?
8. "Pasteuring of fruit juice is preferred before storing". Give reason.
9. What is the role of bleaching in bread making?
10. Mention the enzymes used in brewing industry.

Part B

Answer ANY EIGHT questions.

8x5=40marks

11. Write a short note on Starch Granules.
12. Write a short note on the Gum Arabic.
13. What is Hydrogenation of oil? Write a short note on modification of Fat.
14. Explain the mechanism and effectiveness of antioxidant.
15. Write short note on Lypolysis.
16. How will you analyze the Protein by Biuret method?
17. Give any two tests for assessing the quality of saturated fats and frying oils.
18. Write short note on the Phosphorylation reaction of Protein in food.
19. Give the mechanism for the conversion of alcohol to aldehyde using enzymes.
20. Explain the role of pectic enzyme.
21. Discuss about the stability and mode of degradation of folic acid.
22. Explain the estimation and detection of riboflavin from curry leaves by fluorescence method.

Part C

Answer ANY FOUR questions.

4x 10=40 marks

23. i) What are Carrageenan?
ii) Give a detailed account on their classification and its applications.
24. Discuss the various factors influencing rate of lipid oxidation in food.
25. Discuss in detail the following protein structures
i) primary
ii) secondary structure of proteins.
26. How will you evaluate the protein nutritive value by PER and NPR methods.
27. i) What are enzyme inhibitors?
ii) Explain briefly about the types of inhibitors.
28. Write briefly about the stability and mode of degradation of vitamin-A.
