



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – NOVEMBER 2016

FP 2806 - ORGANIC CHEMISTRY OF FOOD - II

Date: 05-11-2016
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part A

Answer ALL the questions.

(10 x 2=20) marks

1. Differentiate Geranial and Neral.
2. Mention the structural difference between cyanin chloride and cyanidin chloride.
3. What are Hemlock alkaloids?
4. List the functions of anthocyanins.
5. What is the impact in consuming codeine and morphine on physiological system.
6. Differentiate flavonol and flavones.
7. Draw the structure of benzodiazine and thiazine.
8. Mention any four factors affecting the stability of food colours.
9. What are auxochromes? Give an example.
10. Draw the structure of methyl orange dye.

Part B

Answer ANY EIGHT questions.

(8 x 5 =40) marks

11. Discuss the occurrence and applications of indole in food.
12. Write the importance of heterocyclic compounds present in DNA.
13. Describe the various steps involved in the extraction of alkaloids from plant.
14. Write a note on base hydrolysis of quercetin.
15. What are Isoflavones? Explain the colour and heat stability of anthocyanins.
16. Enumerate the occurrence of squalene as a food ingredient.
17. Structurally differentiate the following terpenes.
 - i) menthol or menthone. **(2.5 marks)**
 - ii) and vettivones **(2.5 marks)**
18. Enumerate the conversion of - terpineol into carvone in presence of NOCl.
19. Discuss the adverse effects of tobacco alkaloids.
20. Describe the base hydrolysis pattern of cyanin chloride.
21. Write Witts's theory for the colour and constitution of dyes.
22. How will you classify the dyes based on its application in fibre?

Part C

Answer ANY FOUR questions.

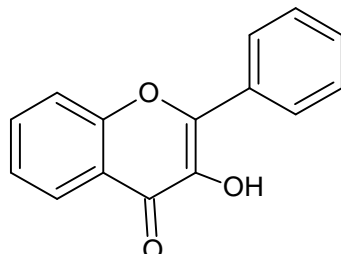
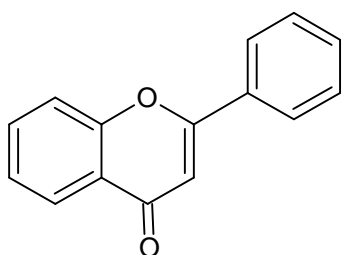
(4 x 10 = 40) marks

23. i) Identify the following structures and name the flavonoid

(2marks)

a)

b)



ii) Describe the various steps involved in the isolation of terpenoid

(8marks)

24. Explain the separation of terpenoids from essential oils by suitable chemical methods.

25. Discuss the sources and extraction procedures for quinine and morphine .

26. Discuss the source, structure, and effects of the following alkaloids;

i) Ephedrine

(5 marks)

ii) Mescaline

(5 marks)

27. a) Draw the structure of the following heterocyclic compounds.

(4 marks)

i) Carbazole ii) Oxazole iii) Quinoline

b) Describe the role of heterocyclic in chlorophyll and haemoglobin.

(6marks)

28. i) Mention the important characteristics of food colourants.

(5 marks)

ii) Write a note on acridine dyes.

(5 marks)
