



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – APRIL 2018

FP 2806- ORGANIC CHEMISTRY OF FOOD - II

Date: 21-04-2018
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part A

Answer ALL the questions. Each carries TWO marks

(10 x 2 = 20) marks

1. What are auxochromes and chromophores? Give an example for each.
2. Draw the structure of cyanidin.
3. Write any two important applications of phthalein dyes.
4. What are chromones? Give an example.
5. Mention some examples of heterocyclic ring based Natural Products?
6. Give an example for dyes and pigments used in food industry?
7. Mention the source and applications of α -Pinene.
8. Suggest a structural relationship between Malvidin chloride and cyanidin chloride?
9. Write the structures of benzopyrylium chloride and flavylium chloride.
10. What are Ephedrines?

Part B

Answer ANY EIGHT questions. Each carries FIVE marks

(8 x 5 = 40) marks

11. Write a note on volatile terpenes generated in gingerol.
12. Describe the various thermally induced heterocyclic compounds derived during milk processing.
13. Explain the isolation procedure of flavanols.
14. Comment on generation of heterocyclic compounds in biological reactions.
15. Explain the extraction procedure for alkaloids.
16. Describe the products obtained by the base hydrolysis of Delphinidin chloride and Malvidin chloride.
17. What are Lutidines and Collidines? Mention a property and uses of Piperidine.
18. How will you synthesize methyl orange from sulphanilic acid?
19. What are food colorants? Mention any four important factors affecting the stability of food colorants.
20. Draw the structure of malachite green and crystal violet.
21. Describe the base hydrolysis of quercetin.
22. Draw the structure and write the sources of any two anthocyanidin dyes.

Part C

Answer ANY FOUR questions. Each carries TEN marks

(4 x 10 = 40) marks

23. Describe the electrophilic substitution reactions of the following heterocyclic compounds
a) Pyridine b) Pyran c) Furan d) Imidazole
24. Discuss in detail about the isolation and classifications of Anthocyanins.
25. What is Isoprene rule? Write a short on the following terpenoids
a) Longifolene
b) Borneol
26. What are Flavonoids? Discuss the base hydrolysis of Pelargonidin chloride.
b. What are iso flavones? Describe the base hydrolysis of Daidzein.
27. a. What are Anthocyanins? Describe the various factors affecting the colour and shade of anthocyanins.
b. Explain quinonoid theory for the colour and constitution of Dyes (6+4)
28. a) List out any four important applications of Sunset yellow in food products.
b) Write a note on acridine dyes.

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