



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – CHEMISTRY

SIXTH SEMESTER – APRIL 2015

CH 6610/CH 6604 - CHEMISTRY OF NATURAL PRODUCTS

Date : 20/04/2015
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

PART- A

Answer ALL questions:

(10x2=20)

1. What happens when conine is distilled with Zinc dust?
2. What is Ziesel's method?
3. What is isoprene rule?
4. Write the geometrical isomer of geraniol.
5. Give any two tests for anthocyanins.
6. What is the action of cyanidine chloride with potassium hydroxide?
7. Draw the structure of caffeine.
8. What is the use of Libermann-Buchard reaction?
9. What is chromophore? Give an example.
10. What are bathochromic and hypsochromic shifts?

PART- B

Answer any EIGHT questions:

(8x5 = 40 marks)

11. How will you synthesize nicotine from succinimide?
12. Explain Hoffmann's exhaustive methylation with an example.
13. Convert the following
 - (i) Camphoric acid to Camphor 2 ½ marks
 - (ii) Acetone to Citral 2 ½ marks
14. Discuss the geometrical isomerism exhibited by carotenoids.
15. Starting from m- cresol how will you prepare p- cymene via menthol.
16. Elucidate the structure of flavone.
17. Discuss the structural relation between Quercetin and cyanidine chloride.
18. Explain the nomenclature of steroids with suitable example.
19. How will you establish the structure of uric acid?
20. Mention the steps involved in the synthesis of cholesterol with equations.
21. Make following conversions:
 - (i). Anthranilic acid in to Indigotin 3 marks
 - (ii). Anthraquinone in to Alizarin 2 marks
22. Describe the structure of Indigotin.

PART- C

Answer any FOUR questions:

(4x10= 40marks)

23. Elucidate the structure of piperine.
24. (i) Discuss any two methods for the synthesis of flavonol. 5 marks
(ii) Explain the synthesis of anthocyanidins by Robinson method. 5 marks
25. Determine the structure of Vitamin- A.
26. (i) How will you synthesize β - carotene. 5 marks
(ii) Write about the biological and toxic effects of alkaloids. 5 marks
27. (i) How will you synthesize (\pm) oestrone. 5 marks
(ii) Write notes on biological importance of purines. 5 marks
28. Discuss the theories of colour and constitution of dyes.

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