



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – CHEMISTRY

SIXTH SEMESTER – APRIL 2016

CH 6616 – CHEMISTRY OF NATURAL PRODUCTS

Date: 21-04-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

SECTION A

Answer ALL the questions

(10x2=20 marks)

1. How are alkaloids classified?
2. Draw the structure of piperine.
3. How menthone is converted to menthol?
4. What are carotenoids?
5. What are anthocyanins? Cite an example.
6. Quercetin-which is a flavanoid is also known as phenolic. Why?
7. What is the biological importance of purine?
8. Draw the structure of caffeine.
9. What are natural dyes? List some examples.
10. Draw the structure of alizarin and mention the chromophore present in it.

SECTION B

Answer any EIGHT questions

(8x5=40 marks)

11. Outline the synthesis of nicotine.
12. Explain the biological significance of nicotine.
13. How are terpenoids classified? What is special isoprene rule?
14. Explain the geometrical isomerism in carotenoids.
15. How citral is synthesized from methylheptenone?
16. Write the general methods of structural elucidation of flavone.
17. Explain Robinson synthesis of anthocyanin.
18. How is uric acid synthesized?
19. Explain the stereochemistry of steroids.
20. How are purines classified? Draw the structure of purines present in DNA.
21. What are chromophores and auxochromes? Cite an example for each.
22. How are dyes classified? Explain.

SECTION - C

Answer any FOUR questions

(4x10=40 marks)

23. a) Explain the general methods of structural elucidation of alkaloids. (6)
b) Draw the structure of papavarine and explain its biological significance. (4)
24. Elucidate the structure of Vitamin-A and write its synthesis.
25. Write a note on the general methods of structural determination of terpenoids.
26. a) Write a note on the colour and structure of cyanidine chloride. (5)
b) Explain the synthesis of cyanidine chloride from phloroglucinol. (5)
27. Explain the biosynthesis of cholesterol.
28. a) What are vat and mordent dyes? List any two examples. (5)
b) Write the structural elucidation of idigoitin with equations. (5)

\$\$\$\$\$\$