



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – CHEMISTRY

SIXTH SEMESTER – APRIL 2015

CH 6616 - CHEMISTRY OF NATURAL PRODUCTS

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

Dept. No.

Max. : 100 Marks

SECTION-A

ANSWER ALL THE QUESTIONS:

(10x2=20)

1. Draw the structure of nicotine.
2. Write any two biological properties of papavarine.
3. Citral is an unsaturated aldehyde. Prove this.
4. What are carotenoids?
5. Write down the short synthesis of cyanidin chloride.
6. What are flavonoids?
7. What happens when caffeine is oxidized with KClO_3 .
8. Draw the structure of uric acid.
9. Write the structure of indigotin.
10. What are vat dyes?

SECTION-B

ANSWER ANY EIGHT QUESTIONS

(8x5=40)

11. Outline the synthesis of coniine.
12. How are alkaloids extracted from plants?
13. What is isoprene rule? How are terpenoids classified?
14. How will you synthesize β -carotene?
15. Explain Hofmann's exhaustive methylation.
16. Elucidate the structure of xanthine.
17. Discuss any one synthesis of flavone.
18. How is caffeine synthesized?
19. Explain the classification and biological importance of purines.
20. What happens when uric acid is treated with PCl_5 at low and high temperatures?
21. What is a dye? Explain the following terms with example.
 - (i) Chromophore
 - (ii) Auxochrome.
22. Explain the classification of dyes.

SECTION-C

ANSWER ANY FOUR QUESTIONS:

(4x10=40)

23. a) Discuss the general method of structural elucidation of alkaloids.
b) Mention biological properties of nicotine. (6+4)
24. Explain the synthesis of menthol and camphor. (5+5)
25. Establish the structure of vitamin-A.
26. What are anthocyanins? Discuss the structure and any two general methods of synthesis of anthocyanins.
27. Elucidate the structure of quercetin.
28. a) What are ingrain and mordant dyes?
b) How is the structure of alizarin established? (4+6)

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