

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – CHEMISTRY

SIXTH SEMESTER – NOVEMBER 2015

CH 6616 - CHEMISTRY OF NATURAL PRODUCTS

Date : 11/09/2015
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

SECTION – A

Answer all questions

(10×2=20)

1. Draw the structure of piperine.
2. Give any four functions of alkaloids.
3. How are terpenoids classified?
4. Give the significance of geometrical isomerism in carotenoids.
5. What are anthocyanines?
6. Define steroids.
7. Draw the structure of purine. Name two biologically important purines.
8. How is indigoitin synthesized?
9. What are natural dyes? Give their applications.
10. State isoprene rule.

SECTION – B

Answer any EIGHT questions

(8×5=40)

11. How are alkaloids classified? Give suitable examples for each.
12. Elaborate on Barbier-Bouveault-Tiemann's synthesis of Citral.
13. Write a note on the structure and function of Vitamin A.
14. How is camphor synthesized?
15. Using Hofmann exhaustive methylation elaborate the degradation of alkaloids.
16. Discuss the stereochemistry and nomenclature of steroids.
17. How is uric acid synthesized?
18. What are purines? Give their biological importance.
19. Elaborate on synthesis of alizarin.
20. What are natural dyes? How are they classified? Give an example each.
21. How is the structure of cyanidine chloride determined?
22. What are flavones and flavonones? Give suitable example for each along with their structure.

SECTION – C

Answer any four questions

(4×10=40)

23. Elaborate on the synthesis of a) menthol b) caffeine.
24. Give the general method of determining the structure of terpenoids.
25. Elaborate on the biosynthesis of cholesterol.
26. How would you arrive at the structure of Quercetin?
27. Give the general methods of structural elucidation of alkaloids.
28. Describe the relationship between colour and constitution of dyes.

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