



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.Sc. DEGREE EXAMINATION – CHEMISTRY**

**SIXTH SEMESTER – NOVEMBER 2016**

**CH 6610/CH 6604 – CHEMISTRY OF NATURAL PRODUCTS**

Date: 07-11-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**SECTION A**

ANSWER ALL THE QUESTIONS:

(10 x 2 = 20)

1. Why are alkaloids basic in nature?
2. What is the action of zinc dust on alkaloids?
3. State isoprene rule.
4. What happens when potassium bisulphate reacts with geraniol?
5. How is anthocyanidin synthesised from coumarin?
6. What are the products obtained when flavone is boiled with con. nitric acid?
7. Write the action of con. nitric acid on uric acid.
8. Draw the structure of cholesterol.
9. What is a dye?
10. What is a chromophore? Give any two examples.

**SECTION - B**

ANSWER ANY EIGHT QUESTIONS:

(8 x 5 = 40)

11. What is Hofmann's exhaustive methylation? Explain with suitable example.
12. Write the synthesis of piperine.
13. Describe the oxidation and reduction products of citral.
14. Explain the synthesis of beta carotene.
15. How is campharonic acid synthesised?
16. Bring out the difference between flavone and anthocyanine.
17. How is cyanidine chloride synthesised?
18. Determine the structure of uric acid.
19. Elucidate the structure of caffeine.
20. Write the synthesis of oesterone.
21. Describe the modern theory of colour and constitution.
22. How are dyes classified based on their structure?

**SECTION – C**

ANSWER ANY FOUR QUESTIONS:

(4 x 10 = 40)

23. (a) How are alkaloids extracted from plants?  
(b) Explain the synthesis of nicotine.
24. How is UV spectroscopy useful in the determination of structure of terpenoids?
25. Elucidate the structure of Vitamin A.
26. How is the structure of Quercetin elucidated?
27. Explain the synthesis of cholesterol.
28. (a) How is the structure of alizarin determined?  
(b) Describe the synthesis of indigotin.

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