LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SIXTH SEMESTER – **APRIL 2013**

CH 6610/CH 6604 - CHEMISTRY OF NATURAL PRODUCTS

Date: 30/04/2013 Dept. No. Max. : 100 Marks

Time: 1:00 - 4:00

SECTION - A

Answer ALL the questions: (10x2=20)

1. What is isoprene rule?
2. Draw the structure of camphor.
3. Mention any four functions of alkaloids.
4. What are anthocyanines?
5. Define and give an example of flavonoides.
6. Mention any four biological importance of purines.
7. Brief on the occurrence of natural dyes.
8. Mention any four functions of terpenoids.
9. Bring out the characteristics of nifrodyes.
10. Outline the structure of alizarin.

SECTION - B

Answer any EIGHT questions: (8x5=40)

11. Elucidate the structure of menthol.
12. Explain the geometrical isomerism in carotenoids.
13. Outline the synthesis of coniine.
14. Explain Hofmann's exhaustive methylation.
15. How will you synthesis β - carofene.
16. How is cyaniding chloride determined?
17. Elucidate the structure of xanthine.
18. With suitable example explain the stereochemistry and nomenclature of steroids.
19. How is ($\pm$) oestione synthesized?
20. Explain the colour and constitution of natural dyes.
21. Brief on the general method of synthetics of authrocyanines.
22. How is the structural determination of alizarin carried out.

SECTION - C

Answer any FOUR questions: (4x10=40)

23. Explain the structure and synthesis of vitamin – A.
24. a) Explain Baker – Venkatraman synthesis of flavores.
    b) Establish the structure of quercetin.
25. Outline the synthesis of geraniol and menthol.
26. a) What are the biological properties of papaverine?
    b) How will you synthesis nicotine.
27. a) What are azo and mordant dyes?
    b) How is indigoitin structure established?
28. Establish the structure of cholesterol and give its synthesis.

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