

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – CHEMISTRY

SIXTH SEMESTER – APRIL 2010

CH 6604 - NATURAL PRODUCTS

Date & Time: 20/04/2010 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

PART-A

Answer *all* questions.

(10x2=20)

01. What are carcinogenic hydrocarbons? Give an example.
02. Pyridine is more basic than pyrrole. Why?
03. What are alkaloids?
04. Draw the structure of nicotine. Mention any two of its functions.
05. Why does pyridine undergo electrophilic substitution reaction at 3rd position?
06. State isoprene rule.
07. Draw the structure of camphor and indicates the number of isoprene units present in it.
08. What are flavones?
09. Write the tautomeric structures of purine.
10. What is Zeisel method? Give its importance.

PART-B

Answer *any eight* questions.

(8x5=40)

11. How is naphthalene synthesized? Explain.
12. Explain the Friedal Craft's alkylation reaction mechanism of pyrrole.
13. What are terpenoids? How are they classified on the basis of isoprene rule?
14. Explain the structural elucidation of piperine.
15. Explain the isolation of terpenoids with any one method.
16. How is the structure of terpenoid determined? Explain the different stages of it.
17. Elucidate the structure of citral.
18. How is anthocyanine synthesized?
19. Explain with a method of synthesis of flavone.
20. Write the structures of the following.
(a) coniine (b) α -pinene (c) anthocyanidin
21. Explain the structure of alloxan.
22. How will you determine the structure of caffeine.

PART-C

Answer *any four* questions.

(4x10=40)

23. (a) Explain the isolation of naphthalene with any one method. (5)
(b) Write the electrophilic substitution mechanism of anthracene. (5)
24. (a) Suggest a method to synthesis quinoline. (5)
(b) Explain the general method of determining structure of alkaloids. (5)
25. Explain the structure of papaverine.
26. Elucidate the structure of menthol. Give any two applications.
27. Explain the general method of structural elucidation of anthocyanines.
28. Explain the synthesis of uric acid.

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