



Date: 14-11-2016
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART – A

Answer ALL the questions.

(10 x 2 = 20)

1. What are Alkaloids? Give two examples.
2. Which of the following is a chromophore? Give reasons.
a. -NO₂ b. -SO₃H c. -OH d. -COOH.
3. Which of the following is an auxochrome? Give reasons.
a. -N=O b. NO₂ c. -N=N- d. -OH
4. How will you determine the number of double bonds present in the alkaloid piperine?
5. What is isoprene rule? Indicate the isoprene units in the structure of citral.
6. How will you synthesize α -terpineol from α -pinene?
7. What are purines? Write the structure of Caffeine.
8. Give any two biological importance of anthocyanins.
9. Write the products obtained when uric acid is oxidized using dil.HNO₃.
10. Give the structure of cyanidine chloride.

PART – B

Answer any Eight questions

(8 x 5 = 40)

11. Give the synthesis of β -Carotene.
12. Describe the extraction of alkaloids from plants.
13. Give a method of preparation and use of alizarin.
14. What are dyes? Explain the classification of dyes based on their structure.
15. Write the structural formula and uses of
a. Menthol b. α -pinene c. Camphor.
16. i. What happens when citral is subjected to oxidation with Alk.KMnO₄ followed by chromic acid? Write the name and structure of the products formed.
ii. What happens when menthol is heated with KHSO₄?
17. Briefly discuss the constitution of geraniol.

18. i. What are terpenes? How are they classified?
ii. How will you establish the position of double bonds in citral?
19. Write short notes on flavones and flavonoids.
20. Give any one method for the synthesis of cyanidine chloride.
21. What are purines? Give its biological importance.
22. i. What are the products obtained when caffeine is oxidized using potassium chlorate in HCl?
ii. How will you synthesize Caffeine from uric acid using Fischer method?

PART – C

Answer any four questions.

(4 x 10 = 40)

23. Elucidate the structure of Xanthine.
24. Discuss the two theories of colour and its relation to chemical structure.
25. Elucidate the structure of Menthol.
26. What are anthocyanins? Discuss the structure and any two general methods of synthesis of anthocyanins.
27. What is Vitamin A? Give its Structure and functions. Give the synthesis of Vitamin A.
28. Elucidate the structure of Uric acid.
