

Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, March 2022

First Degree Programme under CBCSS

Chemistry

Complementary Course for Home Science

CH 1331.5 – ORGANIC CHEMISTRY – II

(2020 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions. **Each** question carries 1 mark.

1. Write two examples for heterocyclic compounds.
2. Define isoprene rule.
3. What is Buna-S?
4. What are antipyretics?
5. What is PMMA?
6. Give one example for basic dye.
7. Draw the structure of furan.

P.T.O.

8. What is the use of menthol?
9. Which is more basic pyrrole or thiophene?
10. What is nylon-66?

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions. Each question carries **2** marks.

11. Discuss the structure of Furan, Pyrrole and Thiophene.
12. Why pyridine is more basic than thiophene?
13. What are chromophores?
14. What are antimalarial drugs?
15. Explain Hoffmann exhaustive methylation.
16. Draw the structure of quinine.
17. What are dyes? Explain with an example.
18. Give one method for the preparation of PVC.
19. Explain the relative position of electrophilic substitution reaction in furan with an example.
20. How terpenes occur in nature?
21. Mention the uses of thiokol rubber.
22. Write two application of polymers in food package.
23. Explain auxochrome theory of dyes.

24. Explain one general method for the isolation of alkaloids.
25. Write two uses of Phenolphthelien dye.
26. What is neoprene rubber?

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six**. Each question carries **4** marks.

27. Compare the resonance structure of thiophene and pyridine.
28. How terpenes are classified? Describe the chemical property of geraniol.
29. Distinguish between Buna-N and Buna-S.
30. Explain the structure and physiological action of morphine.
31. Explain the method to differentiate primary, secondary and tertiary amines.
32. Write a short note on chemotherapy.
33. What are analgesics? Explain their uses and physiological action.
34. Explain the method for the synthesis of aspirin and its uses.
35. What type of polymers are used in medicine? Explain with suitable examples.
36. Discuss the method for the preparation of PETP and its applications.
37. Give the method for synthesis of Malachite green and Alizarin.
38. Describe the oxidation reaction of furan and pyrrole.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two**. Each question carries **15** marks.

39. Illustrate on preparation, physical properties and reactions of purine and pyrimidine bases.
40. Explain the reactions of oxygen containing functional group in alkaloids.
41. How drugs are classified? Discuss the mode of action of sulpha drugs.
42. Discuss the classification of dyes based on structure and application.
43. Discuss preparation and uses of
 - (a) Terylene
 - (b) PVA
 - (c) Nylon-6
44. (a) Explain structure and Physiological action of nicotine and coniine. 8
(b) Write short note on natural rubber and its applications. 7

(2 × 15 = 30 Marks)