

Reg. No. : .....

Name : .....

Fourth Semester B.Sc. Degree Examination, August 2022

First Degree Programme under CBCSS

Chemistry

Complementary Course for Homescience

CH 1431.5 : ORGANIC AND MEDICINAL CHEMISTRY

(2017-2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark.

1. How will you explain the acidic nature of pyrrole?
2. Give one method of preparation of BHC.
3. What is Chichibabian reaction of pyridine?
4. What is the chemical name of Vitamin-C?
5. Give one example for sulpha drugs.
6. What are disinfectants?
7. What are aerosols?
8. What is e-waste?

9. Why do pesticides causes biomagnification?
10. Explain the process sedimentation.

(10 × 1 = 10 Marks)

#### SECTION – B

Short answer type. Answer any **eight** questions from the following. **Each** question carries **2** mark.

11. How is aspirin prepared in laboratory?
12. List any two preservatives.
13. Explain why furan is less reactive than pyrrole towards electrophilic substitution reactions?
14. What is the role of vitamin E and vitamin C as food additives?
15. Give one chemical reaction of pyridine to prove its basic nature.
16. What are rodenticides? Give one example.
17. What are the consequences of eutrophication?
18. Explain green house effect.
19. What are antibiotics? Give two examples.
20. What is photochemical smog?
21. What are carbamates? Mention its application.
22. Explain the toxic effects of asbestos.

(8 × 2 = 16 Marks)

#### SECTION – C

Short essay type. Answer any **six** questions from the following. **Each** question carries **4** marks.

23. Discuss isolation and synthetics of thiophene.
24. Depict the oxidation reactions of pyridine and furan.

25. What are antipyretics? Discuss with examples.
26. Write short note on classification of insecticides.
27. Explain the sources and consequences of heavy metal poisoning.
28. Write short note on soil pollution.
29. Explain the different steps involved in domestic water treatment.
30. What is electrodialysis? Explain its application in purification of water.
31. Write short note on antioxidants.

(6 × 4 = 24 Marks)

### SECTION – D

#### Long essay

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

32. (a) Give an account of water pollution due to pesticides and detergents. (8 Marks)
- (b) What is the use of activated charcoal and synthetic resin in water treatment? (7 Marks)
33. (a) Write short note on antimalarial drugs. (7 Marks)
- (b) Discuss the structure and applications of saccharin, aspartame and cyclamates. (8 Marks)
34. (a) Compare the basic nature of pyrrole, pyridine and aliphatic amine. (7 Marks)
- (b) Discuss the relative positions of pyrrole towards electrophilic substitution reactions with two examples. (8 Marks)
35. What is meant by ozone depletion? Discuss its causes, consequences and control measures. (2 × 15 = 30 Marks)