D 51728 **(Pages : 2)** **Name.....**

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2023

Chemistry/Industrial Chemistry/Polymer Chemistry

CHE 3C 03—ORGANIC CHEMISTRY

(2019—2022 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A (Short Answers)

Answer questions up to 20 *marks.*
Each question carries 2 *marks.*

1. What are elimination reactions ? Give one example.
2. Draw the stable geometrical isomer of but-2-ene-1,4-dioic acid and explain the reason for its stability.
3. State and explain Huckel's rule with an example.
4. What are Enantiomers ? Depict the enantiomers of lactic acid.
5. How is propanoic acid prepared from Griguard reagent ?
6. What are free radicals and how are they formed ?
7. Compare the basicity of ammonia and methylamine.
8. What is iodoform test ? Give an example of a compound giving iodoform test.
9. Write on the harmful effects of ethanol on human body.
10. Explain vulcanisation and its advantages.
11. Write any *two* uses of citral and sandalwood oil.
12. What are Monosaccharides ? Give an example.

(Ceiling of marks : 20)

Turn over

Section B (Paragraph)

Answer questions up to 30 *marks.*
Each question carries 5 *marks.*

13. Describe the mechanism and stereochemistry of S_N2 reaction.

14. Briefly explain Luca's test for the distinction of alcohols.

15. What is Electromeric effect ? Give an example each for reactions involving + E effect and – E effect.

16. Explain Friedel-Craft's alkylation reaction with mechanism.

17. Write a short note on the conformations of cyclohexane.

18. Explain for the following :

    (a) Chloroacetic acid is stronger than acetic acid ; and

    (b) 2-butene is more stable than 1-butene.

19. What are Carbocations ? Discuss the structure and stability of carbocations.

(Ceiling of marks : 30)

Section C (Essay)

Answer any **one** *question.*
The question carries 10 *marks.*

20. Discuss in detail the preparation and applications of benzene diazonium chloride.

21. Briefly explain the structure of proteins.

(1 × 10 = 10 marks)