

23U306

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Name:

Reg.No:

**THIRD SEMESTER B.Sc./M.Sc. INTEGRATED GEOLOGY DEGREE EXAMINATION,
NOVEMBER 2024**

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U CHE3 C03 / CC23 CHE3 IC03 - ORGANIC CHEMISTRY

(Chemistry - Complementary Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 2

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. What is meant by resonance effect?
2. Which is more stable -cis-but-2-ene or trans-2-but-2-ene?
3. What is meant by electromeric effect?
4. Differentiate between asymmetric and dissymmetric molecules.
5. How can benzene be converted toluene?
6. Explain Wurtz reaction using a suitable example.
7. What is meant by denaturation of alcohol?
8. What is meant by Hoffmann's bromamide reaction?
9. Give an example for the preparation of an azo dye.
10. What is gun cotton?
11. What do RNA and DNA stands for?
12. Give an example for cyclic terpenoid.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Explain how benzyl anion attains stabilization.
14. Draw the planar representation of dextro, leavo and meso tartaric acid.
15. What is meant by bromination? Discuss the mechanism of bromination of benzene.
16. Explain the order of acidity of ethyl alcohol, isopropylalcohol and tert-butylalcohol.
17. Illustrate (i) oxidation and (ii) dehydrogenation of primary alcohols.

18. Differentiate between fibrous and globular proteins with examples.

19. Explain the source, structure and uses of citral.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Explain the acidic nature of phenol. How do substituents affect the acidity of phenol?

21. Differentiate between configuration and conformation. Draw the conformation of ethane and cyclohexane. Explain the relative stability of conformations.

(1 × 10 = 10 Marks)
