QP CODE: 26802033

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Reg No : .....

Name : .....

INTEGRATED M Sc DEGREE EXAMINATION APRIL 2026

Second Semester

INTEGRATED M Sc BASIC SCIENCES - PHYSICS

COMPLEMENTARY - IPH2CM06 - CHEMISTRY - II FUNDAMENTALS OF ORGANIC CHEMISTRY

2021 Admission Onwards

AD34088F

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Name the major types of organic reactions.
2. Give two examples of +R groups.
3. Give one example for Walden inversion.
4. What is the electrophile in sulphonation of benzene?
5. What will be the main product when HBr is added to propene in the presence of a peroxide?
6. Define geometrical isomerism.
7. What are enantiomers? Give one example.
8. What are the four main classifications of polymers?
9. Give any two uses of PET.
10. What are the uses of recycling of plastics?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain the uniqueness of carbon.
12. Differentiate homolytic and heterolytic fission.
13. Chloroacetic acid is a stronger acid than acetic acid. Explain.

14. What is steric effect? Explain the role of steric hindrance in determining the rate of organic reaction using suitable examples.

15. What are the conformations of n-Butane? Explain.

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

17. Write a short note on the mechanism of vucanization.

18. Write a short note on SBR.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. What are reaction intermediates? Explain briefly the common reaction intermediates involved in organic reactions.

20. Explain the terms E1 and E2 in connection with the dehydrohalogenation of tertiary butyl bromide and isopropyl bromide.

21. Discuss on the conformational analysis of ethane.

22. Briefly explain addition and condensation polymerisation reactions by giving suitable examples.

(2×5=10 weightage)