



24803772

QP CODE: 24803772

Reg No :

Name :

INTEGRATED MSC DEGREE EXAMINATION, JUNE 2024

Second Semester

INTEGRATED MSC BASIC SCIENCE-PHYSICS

COMPLEMENTARY - IPH2CM06 - CHEMISTRY - II FUNDAMENTALS OF ORGANIC CHEMISTRY

2021 Admission Onwards

966F05CC

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

Answer any **eight** questions.

Weight 1 each.

1. What are nucleophiles? Give one example.
2. What causes the inductive effect?
3. Define +M effect.
4. Give an application of hyperconjugation.
5. State Hofmann's rule.
6. Draw the d and l forms of lactic acid.
7. Among various conformations of n-butane, which one is more stable and why?
8. What are thermoplastics ?
9. Define addition polymerisation. Give one example of addition polymer
10. What are the monomers of Buna-N Rubber? Give any one use of Buna-N Rubber.

(8×1=8 weightage)

Part B (Short Essay/Problems)

Answer any **six** questions.

Weight 2 each.

11. Give the preparation, structure and stability of free radicals.
12. Write notes on (i) Elimination reactions (ii) Redox reactions





13. What is hyperconjugation? In what type of organic compounds will it operate?
14. Give the differences between S_N1 and S_N2 reactions.
15. What are the conformations of ethane? Explain.
16. What are the differences between conformational isomers and configurational isomers?
17. What are natural rubbers? What are their uses ?
18. Discuss on the environmental hazards of polymers.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain the structural isomerism of organic compounds with suitable examples.
20. What are addition reactions? Explain the possible mechanism for addition reactions with an example for each.
21. Write a short note on (a) Geometrical isomerism (b) E and Z nomenclature of geometrical isomers.
22. What are condensation polymers? Write short notes on polyamides and PF resins.

(2×5=10 weightage)

