

Reg. No. : .....

Name : .....

IV Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, April 2024  
(2019 to 2022 Admissions)  
CORE COURSE IN CHEMISTRY/POLYMER CHEMISTRY  
4B06 CHE/PCH : Organic Chemistry – II

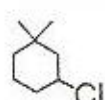
Time : 3 Hours

Max. Marks : 40

## SECTION – A

(Very short answer type – Each carries 1 mark. Answer all 4 questions.)

1. What is Hofmann's Rule ?
2. Write the IUPAC name of

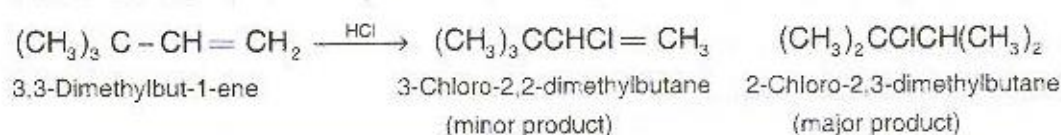


3. Write about Lucas method.
4. What is Etard's reaction ? (4×1=4)

## SECTION – B

(Short answer type – Each carries 2 marks. Answer 7 questions out of 10.)

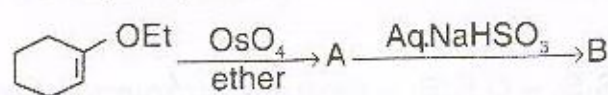
5. Write notes on E1CB reaction.
6. How are alkenes prepared by dehalogenation of dihalides ?
7. The addition of HCl to 3,3-dimethylbut-1-ene leads to the formation of an unexpected product, 2-chloro-2,3-dimethylbutane, in somewhat greater yield than 3-chloro-2,2-dimethylbutane, the expected Markownikoff product.



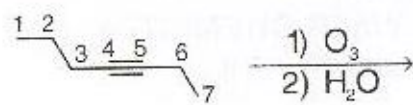
Explain this observation.

P.T.O.

8. Identify the product obtained in each step of the following reaction sequences



9. Predict the product of the following reaction.



10. What is  $\text{S}_{\text{N}}\text{Ar}$  mechanism ?
11. How will you distinguish between acetaldehyde and acetone ?
12. Write notes on Knoevenagel condensation.
13. What is Wittig reaction ?
14. What is the reaction of Oxidation of aldehydes by Selenium dioxide ? (7×2=14)

## SECTION – C

(Short essay/problem type – Each carries 3 marks. Answer 4 questions out of 6.)

15. Write down the propagation steps that take place when HBr adds to 1-methylcyclohexene in the presence of an organic peroxide.
16. Predict the most likely mechanism and the product from the reaction between 2-chloro-2-methylpentane and sodium ethoxide in ethanol.
17. Give any three methods of preparation of cycloalkanes.
18. How would you carry out the following transformation ? Give the mechanism.



19. Write the following reactions :

- a) Gattermann-Koch reaction
- b) Rierner-Tiemann reaction.

20. What is called Oppenauer oxidation ? Discuss its mechanism with a suitable example. (4×3=12)