

D 51232

(Pages : 3)

Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2023

(CBCSS)

Chemistry

CHE 3C 11—REAGENTS AND TRANSFORMATIONS IN ORGANIC CHEMISRTY

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

Section A

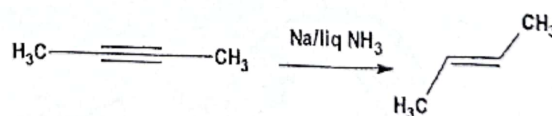
Answer any **eight** questions.

Each question carries a weightage of 1.

1. Effect the following conversion :



2. What is Swern oxidation ?
3. Discuss the mechanism of conversion of



4. What is MPV reduction ?
5. What is DCC ? What is its importance ?
6. What is Lindlar catalyst ?
7. What are thermosetting polymers ? What are their uses ?

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8. Discuss the primary structure of proteins.
9. What is the importance of molecular recognition ?
10. What is Wittig reaction ?

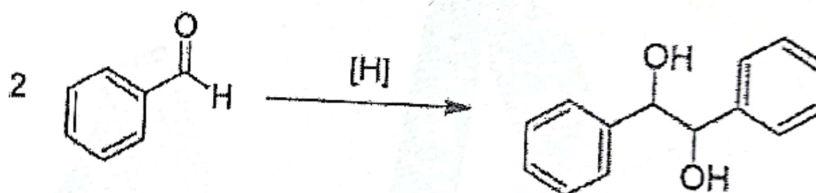
(8 × 1 = 8)

Section B

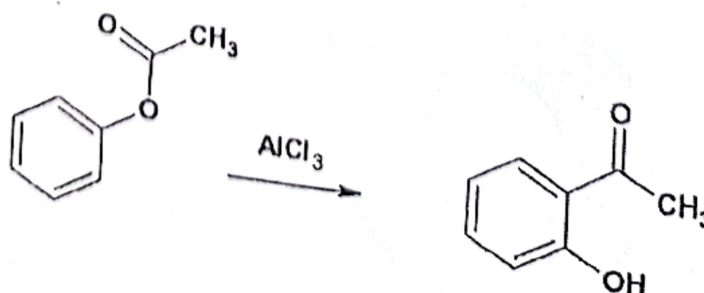
Answer any **six** questions.

Each question carries a weightage of 2.

11. Discuss the Sharpless asymmetric epoxidation
12. Illustrate the following reaction :



13. Discuss the use of LiAlH_4 in organic synthesis.
14. Compare the properties of linked and network polymers.
15. Briefly explain the Merrifield solid peptide synthesis.
16. Discuss the use of H-bonding in crystal engineering.
17. Discuss the mechanism of Negishi coupling
18. Discuss the mechanism of



Section C

Answer any **two** questions.

Each question carries a weightage of 5.

19. With suitable examples, explain the oxidation of alcohols to carbonyls using various reagents.

20. a) Explain the mechanism of the following reaction :



b) Explain the synthetic applications of Crown ethers.

21. a) Explain the structure of cellulose and starch.

b) Explain the basic concept and terminology of supramolecular chemistry.

22. a) Explain the mechanism of conversion of :



b) What is Demjanov reaction ? Discuss its mechanism.

(2 × 5 = 10 weightage)