

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 CHEMISTRY

(2019 Admission onwards)

Time : Three Hours

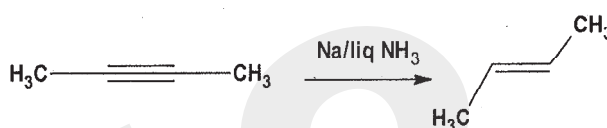
Maximum : 30 Weightage

**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 ?

**Turn over**

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

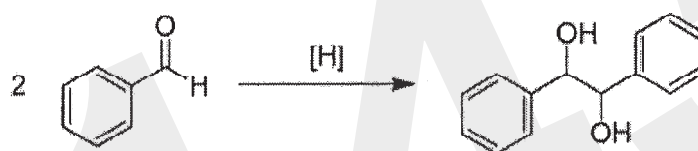
(8 × 1 = 8 weightage)

### Section B

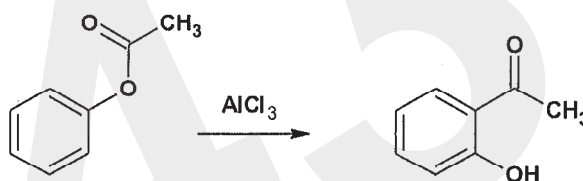
Answer any **six** questions.

Each question carries a weightage of 2.

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



13. Discuss the use of  $\text{LiAlH}_4$  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



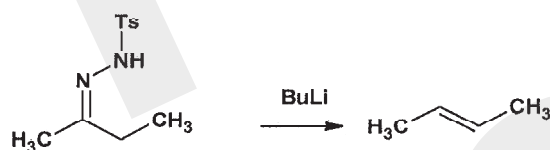
(6 × 2 = 12 weightage)

**Section C**

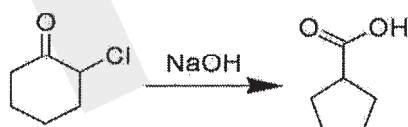
Answer any **two** questions.

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)