M.Sc DEGREE EXAMINATION,APRIL 2019
I Year II Semester
Organic Chemistry - II

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. State Crams rule.
2. How will you convert acetylene to acetaldehyde?
3. What are ylides?
4. What is E_1cB mechanism?
5. What is Sandmayer reaction?
6. Why Cyclooctatetraene is not aromatic?
7. State Huckle's rule.
8. Give photo oxygenation reaction.
9. Define Demjanov rearrangement.
10. Give an example for Von-Richter rearrangement.
11. Identify the product of the reaction of 2-methyl pyridine with SeO_2.
12. What is DCC? Give its applications.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Illustrate hydroboration reaction with suitable example.
14. Explain the mechanism of mannich reaction. Give its application.
15. Write an account of Chugaev elimination.
16. Write short notes on Annulenes.
17. Discuss Di-pi methane rearrangement.
18. Give the mechanism of Wagner-Meerwein rearrangement.
19. Discuss Clemmenson's reduction with mechanism and example.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Explain the following:
    a) Neighbouring group participation. b) Addition of NOCl to olefins.
21. Write short notes on
    a) Pyrolytic Elimination
    b) Long and short lived free radicals
22. Explain the following:
    a) Paterno-Buchi reaction. b) Cis-trans isomerisation.
23. Discuss the mechanism for the following rearrangements with example:
    a) Pinacol-Pinacolene b) Favorski rearrangement c) Stevens rearrangement
24. Discuss the following:
    a) DMSO-DCC in oxidation reaction. b) Hydroxylation with OsO_4.
    c) Birch reduction.

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