B.Sc. DEGREE EXAMINATION,NOVEMBER 2019
III Year V Semester
Organic Chemistry - I

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. Why lithium aluminum hydride is behaves as a strong reducing agent?
2. Give any two reducing agents used in MPV reduction.
3. What is meant by active methylene group?
4. What is ester hydrolysis?
5. Which is more stable staggered or eclipsed?
6. What is the highest energy conformation of cyclohexane?
7. What is meant by racemization?
8. Give an example for syn and anti isomers?
9. What is heterocyclic compound?
10. Give any two uses of pyrrole.
11. Quinoline is a weak base. Why?
12. How is optical rotation measured?

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Describe the mechanism of Aldol condensation.
14. Write a short note on keto-enol tautomerism.
15. Explain the various factors affecting relative stability of conformations?
16. Write a note on asymmetric synthesis.
17. How is furan synthesised from mucic acid? Give any two chemical properties of furan.
18. Give the mechanism of Benzoin condensation?
19. Discuss the Newman representation for the conformations of ethane.

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

Answer any **THREE** questions

20. Explain the mechanism of the following
    (a) Reformatsky reaction (b) Cannizzaro reaction
21. Starting from ethyl acetoacetic ester, how will you prepare the following?
    (a) Methyl ethyl ketone (b) Acetyl acetone (c) 2,3 dimethyl butanoic acid
    (d) Succinic acid
22. Draw the various conformers of cyclohexane and discuss its stability.
23. (a) Explain Walden inversion with examples?
    (b) Describe the geometrical isomerism in maleic acid and fumaric acid.
24. What is diazotisation? Discuss the synthesis and two applications of benzene diazonium chloride.

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