B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
III Year V Semester
Core Major - Paper X
ORGANIC CHEMISTRY - I

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

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

Answer any **TEN** questions

1. What is MPV reduction?
2. Give the name of the products formed when benzaldehyde undergoes Cannizaro's reaction.
3. How does malonic acid react with an aromatic aldehyde?
4. Define tautomerism.
5. What are conformers?
6. Draw the Fischer structure of tartaric acid.
7. What do you mean by asymmetric centre?
8. Define Walden inversion.
9. State any one method of preparation of furan.
10. What is diazotisation?
11. What are spirans?
12. What do you mean by 'ring flipping' in conformational analysis?

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

Answer any **FIVE** questions

13. Explain the mechanism of Reformatsky reaction.
14. Discuss any five synthetic applications of malonic ester.
15. Explain Cahn – In gold and Prelog rules with suitable example.
16. What is resolution? Explain any one method of resolution.
17. Discuss the optical activity of allenes.
18. How is thiophene prepared? Discuss its properties and uses.
19. Discuss the synthetic applications of diazonium salts.

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

Answer any **THREE** questions

20. Discuss the mechanism of Wolff – Kishner and Wittig reactions.

21. With necessary equations discuss the applications of acetoacetic esters.

22. Discuss the conformational analysis of n- butane and draw the energy diagram.

23. What is asymmetric synthesis? Discuss partial and absolute synthesis.

24. Discuss the synthesis and chemical properties of quinoline.

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