17UCHCT6014

B.Sc. DEGREE EXAMINATION, APRIL 2020 III Year VI Semester Organic Chemistry - II

Time : 3 Hours

Max.marks :60

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

Answer any **TEN** questions

- 1. How is salicylaldehyde prepared from phenol?
- 2. How will you prepare ethyl benzene from acetophenone?
- 3. What are non-essential amino acids?
- 4. What is peptide bond?
- 5. Write the reaction of glucose with excess phenyl hydrazine.
- 6. Draw the structure of sucrose.
- 7. State isoprene rule.
- 8. What are fat soluble vitamins?
- 9. What is meant by sigmatropic rearrangement?
- 10. Write the equation of Beckmann rearrangement.
- 11. Define isoelectric point.
- 12. Mention the uses of cellulose.

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

Answer any **FIVE** questions

- 13. Discuss the preparation and two properties of ethanal.
- 14. What are the types of RNA? Discuss their biological function.
- 15. Explain the term mutarotation.
- 16. Discuss the general methods of isolation of alkaloids.
- 17. Write the mechanism of pinacol-pinacolone rearrangement.
- 18. How will you convert glucose in to fructose?
- 19. Write any two methods of preparation of an α -amino acid.

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

Answer any $\ensuremath{\text{THREE}}$ questions

- 20. Discuss the preparation and properties of cinnamaldehyde and benzophenone.
- 21. (a.) Explain the Merrifield's method of polypeptide synthesis. (5)
 (b.) Describe the secondary structure of proteins. (5)
- 22. Describe the constitution of fructose.
- 23. Discuss the structural elucidation of ascorbic acid.
- 24. Explain the mechanism of following rearrangement reactions (a) Hoffmann (b) Benzilic acid (5+5)

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