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(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Chemistry

CHE 6B 10—ORGANIC CHEMISTRY—III

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. What is a chromophore ? Give an example.
2. Write the fingerprint region in IR spectroscopy. What is its significance?
3. Give one example each for mobile phase and stationary phase in column chromatography.
4. Represent the ^1H nmr spectrum of CH_3CH_2Br.
5. Draw the Fischer projection of D(+) Glucose.
6. What are osazones ?
7. What are polysaccharides? Give two examples.
8. Write the hydrolysis product of sucrose.
9. Define isoelectric point.
10. What is biuret test ?
11. Name the bases present in nucleic acids.
12. Draw the structure of Vitamin C.

(8 × 3 = 24 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. How is IR spectroscopy useful for distinguishing inter and intramolecular H -bonding i alcohols ?

14. Write notes on electronic transitions in organic molecules giving suitable examples.

15. Give an account on structure of starch and glycogen.

16. Draw the structure of cholesterol. Give any two biological functions of cholesterol.

17. Discuss conrotation and disrotation in electrocyclic reactions.

18. Explain the Woodward-Hoffmann selection rules for sigmatropic reactions.

19. Write the mechanism of Claisen rearrangement.

(5 × 5 = 25 mar

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Describe the structure of nucleic acids and their role in heredity and protein biosynthesis.

21. (a) Give an account on structure of natural rubber.

    (b) Write notes on vulcanization of rubber and show the substitution at allylic carbon and addi across double bond.

(1 × 11 = 11 ma