

2021
B.A./B.Sc.
First Semester
 GENERIC ELECTIVE – 1
CHEMISTRY
Course Code: CHG 1.11
 (Conceptual Organic Chemistry)

PART-B
 Total Mark: 30

Answer the following questions.

1. (a) What is electromeric effect? Give an example. 2
 (b) What is hyperconjugation? Give an example. 2
 (c) Define electrophiles and nucleophiles with one example for each. 2

 2. (a) Draw Newmann structure of ethane and discuss its conformers. 2
 (b) Discuss CIP-rules. 3
 (c) What do you mean by chirality? 1

 3. (a) What is hydroboration-oxidation reaction of alkene? Give an example. 2
 (b) What is Cannizzaro's reaction? Give an example. 2
 (c) Complete the following reactions: 2
 - (i) $\text{CH}_3 - \text{CH}_2 - \text{CHO} + \text{HCN} \longrightarrow ?$

 - (ii) $\begin{array}{l} \text{CH}_3 \\ \diagdown \\ \text{CO} + \text{C}_6\text{H}_5\text{NH}_2 \\ \diagup \\ \text{CH}_3 \end{array} \longrightarrow ?$

 4. (a) What is Corey-House reaction? Give an example. 2
 (b) What is Saytzeff's rule? Explain. 2
 (c) Give any two points of differences between elimination and substitution reaction. 2

 5. (a) What is Huckel's rule? Explain with an example. 2
 (b) What is Friedal-Craft's acetylation? Give an example. 2
 (c) Ortho and para directing groups are benzene ring activating groups towards electrophilic substitution reaction. Explain. 2
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