

Exam. Code : 107403

Subject Code : 1729

B.Sc. Biotechnology 3rd Semester (Batch 2020-23)

CHEMISTRY—II (Organic)

Paper—BTL-203

Time Allowed—3 Hours] [Maximum Marks—40

Note :—Attempt FIVE questions in all, selecting at least ONE question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. Discuss the formation, stability and chemical reactions of carbanion reactive intermediate.
2. Explain the following with examples :
 - (i) Hyperconjugation
 - (ii) Resonance.

SECTION—B

3. Discuss the mechanism of aromatic electrophilic substitution with example. Provide few evidences to support this mechanism.
4. Write mechanism of (i) Halogenation and (ii) Friedel Crafts reaction by taking suitable example of aromatic substrates.

SECTION—C

5. What do you mean by resolution ? Discuss different methods of resolution of enantiomers with example.
6. Differentiate between absolute and relative configuration with example. What is the Cahn-Ingold Prelog RS notations to determine the configuration ? Discuss with example.

SECTION—D

7. Discuss in detail the mechanism of S_N2 and S_N1 reaction with example and evidences.
8. Write note on the following with example :
 - (i) Substitution versus elimination
 - (ii) Nucleophiles and nucleophilicity.