

S-444

Total Pages : 3

Roll No.

MCH-502

Organic Chemistry-I

M.Sc. Chemistry (MSCCH)

1st Semester Examination, 2022 (Dec.)

Time : 2 Hours]

[Max. Marks : 35

Note : This paper is of Thirty Five (35) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.

(2×9½=19)

1. Give the different type of molecular representation and also discuss classification of stereoisomers.

2. Discuss neighbouring group participation by suitable examples.
3. Discuss elements of symmetry in detail.
4. Give the mechanism of any of following three reactions :
 - (a) ArS_NI Reaction.
 - (b) Sommelet-Hauser re-arrangement.
 - (c) Aliphatic diazonium coupling.
 - (d) Hydroboration oxidation.
5. Discuss E, Z and R, S nomenclature in detail.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

1. What do you mean by enantiomers and diastereomers. Give examples.
2. Explain the chirality in biphenyls.
3. Discuss ambident nucleophiles by giving suitable examples.

4. Explain plane of symmetry by examples.
 5. Discuss theoretical explanation of markovnikov rule.
 6. Explain Sharpless Asymmetric Epoxidation.
 7. Discuss structural orientation and regioselectivity.
 8. Discuss optical activity due to helicity.
-

