

UG 1st Semester Examination 2022

CHEMISTRY [HONOURS]

Internal Assessment

Course Code: CHEM-H-CC-T-02

Full Marks: 10

Answer any five questions [2×5=10]

1. Calculate the double bond equivalent (DBE) of the compound having molecular formula, C_6H_8 . Is the compound aromatic?
 2. Draw the s-cis and s-trans conformations of 1,3-Butadiene.
 3. Between 3,5-Dimethyl-4-nitroaniline and 2,6-Dimethyl-4-nitroaniline which one is stronger base and why?
 4. Write Huckel's rule of aromaticity. Among cyclopentadiene, cyclopentadienyl cation and cyclopentadienyl anion which one is antiaromatic and which one is nonaromatic?
 5. Among primary and tertiary carbocation which one is more stable and why?
 6. Draw the Fischer and Newman projection formula of (2R,3R)-2-Bromo-3-chlorobutanoic acid.
 7. Draw the Newman and Saw-Horse projection formula of anti and fully eclipsed conformations of n-butane.
 8. Illustrate the symmetry elements present in benzene molecule. What is its point Group?
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