

City College

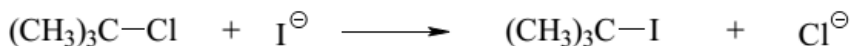
B.Sc Semester 1, Internal Assessment(nline), under CU 2020-21

CHEMISTRY- HONOURS
Paper-CC-1-1 (Organic chemistry)
Full Marks-10
Attempt all questions

1. Which compound does **not** have a conjugated system?



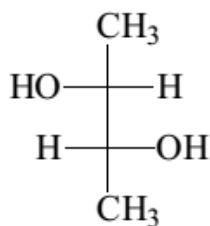
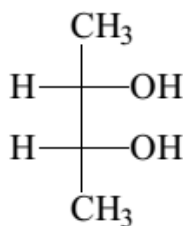
2. Consider the $\text{S}_{\text{N}}1$ reaction of tert-butyl chloride with iodide ion:



If the concentration of iodide ion is doubled, the rate of forming tert-butyl iodide will:
(hint: consider mechanism, i.e. how is the product formed?)

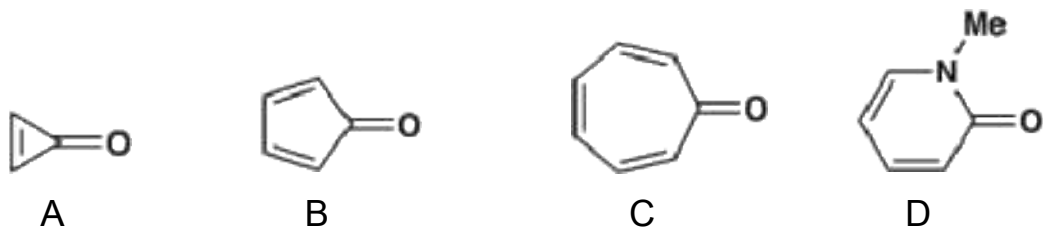
- (A) Double. (B) Increase 4 times. (C) Remain the same.
(D) Decrease. (E) None of the above.

3. The relationship between the following two structures is:



- (A) enantiomers (B) diastereomers (C) structural isomers
(D) identical (E) none of the above

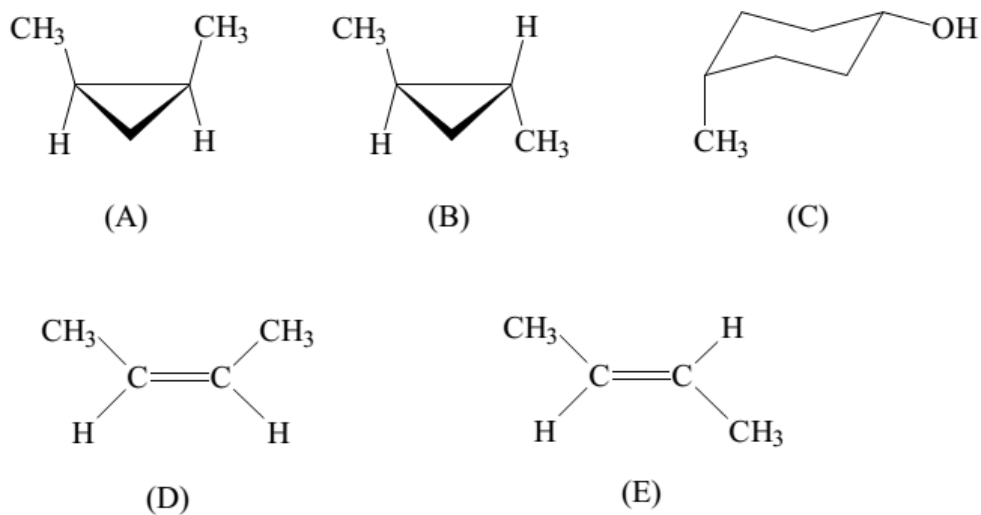
4. Which compound is not aromatic?



5. Which of the following alkyl halides would undergo S_N2 reaction most rapidly?

- (A) $\text{CH}_3\text{CH}_2\text{-Br}$ (B) $\text{CH}_3\text{CH}_2\text{-Cl}$ (C) $\text{CH}_3\text{CH}_2\text{-I}$
(D) $\text{CH}_3\text{CH}_2\text{-F}$ (E) they react at the same rate

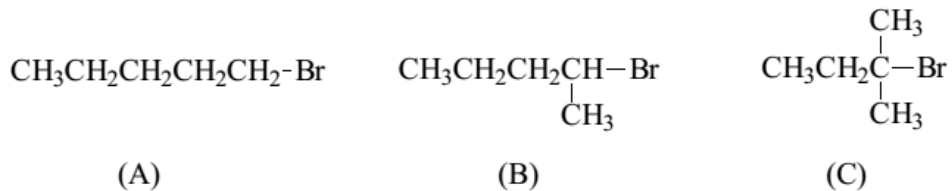
6. Which of the following molecules is chiral?



7. The relationship between (A) and (B) structures in the previous question is:

- A) identical
B) structural isomers
C) diastereomers
D) enantiomers
E) None of the above

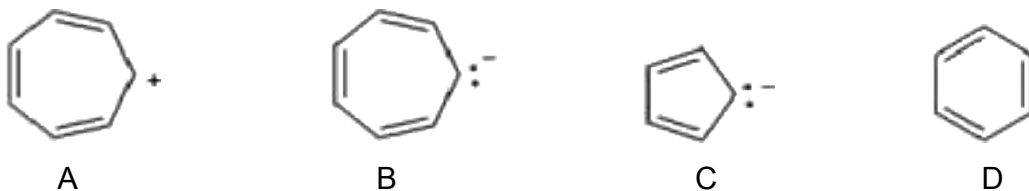
8. Which of the following alkyl halides would you expect to undergo S_N1 reaction most rapidly ?



(D) They will not undergo S_N1 reaction

(E) They react at the same rate

9. Which of (A)-(D) is **not** aromatic?



10. Which of the following is **not** aromatic?

