



CBSE NCERT Based Chapter wise Questions (2025-2026)

Class-XII

Subject: CHEMISTRY

Chapter Name : Haloalkanes & haloarches (Chap : 6)

Total : 6 Marks (expected) [MCQ(1)-1 Mark, VSA-(1)-2 Marks, SA-(1)-3 Marks]

Level - 2 (Higher Order)

(I) MCQ Type (One Correct Answer) :

1. Inversion of configuration occurs in :

- (A) S_N2 reaction (B) S_N1 reaction
(C) neither S_N2 nor S_N1 reaction (D) S_N1 as well as S_N2 reaction

(Hints : CBSE 2023)

2. Racemisation occurs in :

- (A) S_N1 reaction (B) S_N2 reaction
(C) neither S_N1 nor S_N2 reaction (D) S_N2 as well as S_N1 reaction

(Hints : CBSE 2023)

3. Which of the following reaction are feasible ?

- (A) $\text{CH}_3\text{CH}_2\text{Br} + \text{Na}^+\text{O}^-\text{C}(\text{CH}_3)_3 \longrightarrow \text{CH}_3\text{CH}_2\text{—O—C}(\text{CH}_3)_3$
(B) $(\text{CH}_3)_3\text{C—Cl} + \text{Na}^+\text{O}^-\text{CH}_2\text{CH}_3 \longrightarrow \text{CH}_3\text{CH}_2\text{—O—C}(\text{CH}_3)_3$
(C) Both (a) & (b)
(D) Neither (a) nor (b)

(Hints : CBSE 2023)

4. Reaction of 1-phenyl-2 Chloropropane with alcoholic KOH gives mainly :

- (A) 1-phenyl 2-propene (B) 2-phenyl propene
(C) 1-phenyl propene -3-01 (D) 1-phenyl propen-2-01

(Hints : CBSE 2023)

5. Which of the following isomer has the highest melting point?

- (A) 1, 2 -dichlorobenzene (B) 1, 3-dichlorobenzene (C) 1, 4-dichlorobenzene (D) All isomer have same

(Hints : CBSE 2021-22, term II)

(II) Assertion and Reason Questions. (Q. 6 - 10) :

Directions: Read the following questions and choose any one of the following four responses.

- a. Assertion and Reason both are correct and Reason is the correct explanation of Assertion.
b. Assertion and Reason both are correct and Reason is not the correct explanation of Assertion.
c. Assertion is correct but Reason is wrong.
d. Assertion is wrong but Reason is correct.

6. **Assertion (A) :** Chlorobenzene is resistant to nucleophilic substitution reaction at room temperature.

Reason (R) : C-Cl bond gets weaker due to resonance.

- (A) a (B) b (C) c (D) d

(Hints : CBSE, 2023)

7. **Assertion (A)**: Alkyl halide are insoluble in water.

Reason (R): Alkyl halides have halogen attached to sp^2 - hybride carbon.

- (A) a (B) b (C) c (D) d

(Hints : CBSE, SQP 2021, Term-1)

8. **Assertion (A)**: Benzoic acid does not undergo Fridel-crafts reaction.

Reason (R): The carbonyl group is activating and undergo electrophilic substitution reaction.

- (A) a (B) b (C) c (D) d

(Hints : All India, 2020)

9. **Assertion (A)**: Aryl halides undergo nucleophilic substitution reaction with ease.

Reason (R): The carbon halogen bond in aryl halides has partial double bonds character.

- (A) a (B) b (C) c (D) d

(Hints : CBSE, SQP 2020)

10. **Assertion (A)**: Nitration of chlorobenzene leads to the formation of m-nitrochlorobenzene.

Reason (R): $-NO_2$ group is a m-direacting group.

- (A) a (B) b (C) c (D) d

(Hints : Chlorobenzege is o/p direacting Nitrobenzene is m-direacting)

Very Short Answer (VSA) :

11. Convert Acetone to chloroform.

12. Convert chloroform to teargas (chloropicrin)

13. Write a chemical reaction involved in the formation of Freon-12. What is the name of this reaction ?

14. Give reason :

(a) n-Butyl bromide has higher boiling point than -t butyl bromide.

(b) Electrophilic substitution in haloarenes occurs slowly.

(c) The p resence of $-NO_2$ group at o/p position increases the reactivity of haloarenes towards nucleophilic substitution reaction.

(Hints : CBSE 2021 (C))

15. Account for the following :

(i) Haloalkaenes react with NaCN to form both cyanides and isocyanides.

(ii) Haloarenes do not undergo.

(iii) Benzyl chloride given S_{N1} reaction.

(Hints : CBSE, 2024)

ANSWER

- | | |
|--------|---------|
| 1. (D) | 6. (C) |
| 2. (A) | 7. (B) |
| 3. (A) | 8. (C) |
| 4. (A) | 9. (D) |
| 5. (C) | 10. (D) |