



# 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 - 1

## (I) MCQ Type (One Correct Answer) :

1. Auto-oxidation of chloroform in air and light produces a poisonous gas known as :  
(A) phosphine (B) mustard (C) phosgene (D) tear gas

(Hints : CBSE, 2024)

2. Which alkyl halide from the given options will undergo  $S_N1$  reaction faster ?  
(A)  $(CH_3)_3CBr$  (B)  $(CH_3)_2CHBr$  (C)  $CH_3CH_2Br$  (D)  $(CH_3)_3CH_2Br$

(Hints : CBSE, 2024)

3. The conversion of an alkyl halide into an alkene by alcoholic KOH is classified as :  
(A) a substitution reaction (B) an addition reaction  
(C) a dehydrohalogenation reaction (D) a dehydration reaction

(Hints : CBSE, 2023)

4. Which of the following has the highest melting point ?  
(A) O-dichloro benzene (B) m - dichloro benzene  
(C) P - dichloro benzene (D) All have the same melting point.

(Hints : CBSE, 2023)

5. Alkenes decolourise bromine water in presence of  $CCl_4$  due to formation of :  
(A) Alkyl bromide (B) vinyl bromide (C) bromoform (D) vicinal dibromide

(Hints : CBSE, 2021-22, Term-1)

## (II) Assertion and Reason Questions. (Q. 00 - 00) :

**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):** Inversion of configuration is observed in  $SN_2$  reaction.  
**Reason (R):** The reaction proceeds with the formation of carbocation.

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

(Hints : CBSE, 2024)

7. **Assertion (A):** Inversion of configuration is observed when 1-bromobutane is hydrolysis.  
**Reason (R):** The reaction is  $SN_2$  and proceeds with the formation of transition state.

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

(Hints : CBSE, 2023)

8. **Assertion (A)**: Nucleophilic substitution of iodoethane is easier than chloroethane.

**Reason (R)**: Bond enthalpy of C-I bond is less than that C-Cl bond.

(A) a

(B) b

(C) c

(D) d

**(III) VSA Type (Very Short Answer) :**

9. Out of -Cl and -CH<sub>2</sub>Cl, which will react faster in S<sub>N</sub>1 reaction with OH<sup>⊖</sup>?

**(Hints : All India 2020)**

10. Out of CH<sub>3</sub>CH<sub>2</sub>Cl and CH<sub>2</sub>=CH-CH<sub>2</sub>Cl which will react faster in S<sub>N</sub>1 reaction with OH<sup>⊖</sup>?

**(Hints : All India 2020)**

11. Why is t butyl bromide more reactive towards S<sub>N</sub>1 reaction as compared to butyl bromide.

**(Hints : All India 2019)**

**(IV) SA Type (Short Answer) :**

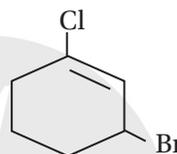
12. (i) Write the IUPAC name of the given compound : CH<sub>2</sub>=CH-CH<sub>2</sub>CH<sub>2</sub>Cl

(ii) Why is thionyl chloride preferred preparing alkyl halides from alcohol.

(iii) What happens when methyl bromide reacts with KCN.

**(Hints : All India 2024)**

13. (i) Write the IUPAC name of the given compound :



(ii) The presence of -NO<sub>2</sub> group at ortho or para position increases. The reactivity of haloarenes towards nucleophilic substitution reactions. Give reason to explain the above statement.

(iii) What happens when ethyl chloride is treated with alcoholic potassium hydroxide.

**(Hints : CBSE 2024)**

14. (i) Write the IUPAC name of the given compound :



(ii) Why haloalkanes more reactive towards nucleophilic substitution reaction than haloarenes.

(iii) What happens when ethyl chloride is treated with aqueous KOH?

**(Hints : CBSE 2024)**

## ANSWER

1. (C)

2. (A)

3. (C)

4. (C)

5. (D)

6. (C)

7. (A)

8. (A)