

PRACTICE TEST

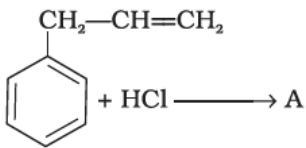
Level 3

CLASS: XII

Unit 10: HALOALKANES AND HALOARENES

Full marks: 20

Time: 40 Min

Q.No	Questions	M
1	Name the following halides according to IUPAC system and classify them as alkyl, allyl, benzyl (primary, secondary, tertiary), vinyl or aryl halides: (i) $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}(\text{Br})\text{CH}_3$ (ii) $p\text{-ClC}_6\text{H}_4\text{CH}_2\text{CH}(\text{CH}_3)_2$	1
2	Write the structures of the following organic halogen compounds. (i) 1-Chloro-4-ethylcyclohexane (ii) 2-(2-Chlorophenyl)-1-iodooctane	1
3	Which one of the following has the highest dipole moment? (i) CH_2Cl_2 (ii) CHCl_3 (iii) CCl_4	1
4	What is "A" in the following reaction- 	1
5	How will you bring about the following conversions? (i) Propene to propyne (ii) Ethanol to ethyl fluoride	2
6	Write the mechanism of the following reaction: $n\text{BuBr} + \text{KCN} \rightarrow n\text{BuCN}$	2
7	Arrange the compounds of each set in order of reactivity towards SN_2 displacement: (i) 2-Bromo-2-methylbutane, 1-Bromopentane, 2-Bromopentane (ii) 1-Bromo-3-methylbutane, 2-Bromo-2-methylbutane, 2-Bromo-3-methylbutane	2
8	Write a chemical test to distinguish between the following pairs of compounds- i. Ethanol and Phenol ii. Benzylalcohol and Cyclohexanol	2
9	What happens when (i) n-butyl chloride is treated with alcoholic KOH, (ii) methyl bromide is treated with sodium in the presence of dry ether,	2
10	Why are aryl halides less reactive towards nucleophilic substitution reactions than alkyl halides? How can we enhance the reactivity of aryl halides?	3
11	Primary alkyl halide $\text{C}_4\text{H}_9\text{Br}$ (a) reacted with alcoholic KOH to give compound (b). Compound (b) is reacted with HBr to give (c) which is an isomer of (a). When (a) is reacted with sodium metal it gives compound (d), C_8H_{18} which is different from the compound formed when n-butyl bromide is reacted with sodium. Give the structural formula of (a) and write the equations for all the reactions.	3