

Quiz: HALOALKANE AND HALOARENES 1

Q1: What is the IUPAC name of $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$?

- A) 1-Bromopropane
- B) 2-Bromopropane
- C) Bromomethane
- D) 1-Bromobutane

Q2: Which of the following is an example of a *primary* haloalkane?

- A) 2-Bromo-2-methylbutane
- B) 1-Bromo-2-methylbutane
- C) 2-Bromo-3-methylbutane
- D) 3-Bromo-2-methylbutane

Q3: Which compound will undergo the *fastest* $\text{S}_{\text{N}}1$ reaction?

- A) 1-Chloro-3-methylbutane
- B) 1-Bromo-3-methylbutane
- C) 1-Iodo-3-methylbutane
- D) 1-Fluoro-3-methylbutane

Q4: The reaction of a haloalkane with *aqueous* KOH typically shows:

- A) Substitution
- B) Elimination
- C) Addition
- D) Oxidation

Q5: Which of the following is a *haloarene*?

- A) C_6H_6
- B) $\text{C}_6\text{H}_5\text{Br}$
- C) $\text{CH}_3\text{CH}_2\text{OH}$
- D) $\text{CH}_3\text{CH}_2\text{Cl}$

Q6: The general formula for haloalkanes is:

- A) $\text{C}_n\text{H}_{2n+2}\text{X}$
- B) $\text{C}_n\text{H}_{2n}\text{X}$
- C) $\text{C}_n\text{H}_{2n-2}\text{X}$
- D) $\text{C}_n\text{H}_{2n+1}\text{X}$

Q7: Which of the following is *not* a haloarene?

- A) Chlorobenzene
- B) Bromobenzene
- C) Fluorobenzene
- D) Iodobenzene

Q8: What type of reaction is the hydrolysis of $\text{CH}_3\text{CH}_2\text{Br}$ with aq. NaOH ?

- A) $\text{S}_{\text{N}}1$
- B) $\text{S}_{\text{N}}2$
- C) $\text{E}1$

D) E2

Q9: Which of the following is a *geminal dihalide*?

- A) $\text{CH}_2\text{Cl}-\text{CH}_2\text{Cl}$
- B) $\text{CHCl}_2-\text{CH}_3$
- C) CCl_4
- D) CH_2Cl_2

Q10: Which of the following is a *benzyl halide*?

- A) $\text{C}_6\text{H}_5-\text{CH}_2\text{Cl}$
- B) $\text{CH}_3-\text{CH}_2-\text{Cl}$
- C) $\text{CH}_2=\text{CH}-\text{CH}_2\text{Cl}$
- D) $\text{C}_6\text{H}_5-\text{Cl}$

Q11: $\text{S}_\text{N}1$ reaction is fastest for which alkyl halide?

- A) 1-Chlorobutane
- B) 2-Chlorobutane
- C) 2-Bromo-2-methylpropane
- D) 1-Bromopropane

Q12: Reaction of haloalkanes with alcoholic KOH gives:

- A) Alkanes
- B) Alkenes
- C) Alcohols
- D) Ethers

Q13: The order of * $\text{S}_\text{N}2$ reactivity* for halides is:

- A) $\text{RI} > \text{RBr} > \text{RCl} > \text{RF}$
- B) $\text{RF} > \text{RCl} > \text{RBr} > \text{RI}$
- C) $\text{RCl} > \text{RBr} > \text{RI} > \text{RF}$
- D) $\text{RI} > \text{RF} > \text{RBr} > \text{RCl}$

Q14: Which reagent converts alcohols to haloalkanes?

- A) PCl_5
- B) SOCl_2
- C) PBr_3
- D) All of the above

Q15: Which product forms when propene reacts with HBr in presence of peroxides?

- A) 1-Bromopropane
- B) 2-Bromopropane
- C) Propane
- D) Allyl bromide

Q16: In haloarenes, the carbon to which halogen is bonded is:

- A) sp hybridized
- B) sp^2 hybridized
- C) sp^3 hybridized
- D) None of the above

Q17: Which of the following will undergo *E2 elimination* readily?

- A) Tertiary bromoalkane with strong base
- B) Primary bromoalkane with weak base
- C) Vinyl chloride
- D) Aryl chloride

Q18: Order of *bond dissociation energy* (C-X) from highest to lowest is:

- A) $\text{C-F} > \text{C-Cl} > \text{C-Br} > \text{C-I}$
- B) $\text{C-I} > \text{C-Br} > \text{C-Cl} > \text{C-F}$
- C) $\text{C-Cl} > \text{C-F} > \text{C-Br} > \text{C-I}$
- D) $\text{C-Br} > \text{C-Cl} > \text{C-F} > \text{C-I}$

Q19: Which of the following is true about haloarenes compared to haloalkanes?

- A) They undergo $\text{S}_{\text{N}}1$ easily
- B) They undergo $\text{S}_{\text{N}}2$ easily
- C) They resist nucleophilic substitution under normal conditions
- D) They are more reactive in addition reactions

Q20: Reaction of chlorobenzene with NaNH_2 gives:

- A) Aniline
- B) Benzene
- C) Chlorobenzene remains unchanged
- D) Phenol

Q21: Which will undergo * $\text{S}_{\text{N}}1$ * reaction most rapidly?

- A) tert-butyl chloride
- B) isopropyl chloride
- C) ethyl chloride
- D) methyl chloride

Q22: Which of the following is an *allylic halide*?

- A) $\text{CH}_2=\text{CH}-\text{CH}_2\text{Br}$
- B) $\text{CH}_3\text{CH}_2\text{Br}$
- C) $\text{C}_6\text{H}_5\text{CH}_2\text{Br}$
- D) $\text{CH}_3\text{CH}(\text{Br})\text{CH}_3$

Q23: What type of reaction is $\text{CH}_3\text{CH}_2\text{Br} + \text{NaOH}(\text{aq}) \rightarrow \text{CH}_3\text{CH}_2\text{OH}$?

- A) Elimination
- B) Substitution ($\text{S}_{\text{N}}2$)
- C) Oxidation
- D) Addition

Q24: Which reagent is commonly used to prepare haloalkanes from alcohols?

- A) PCl_5
- B) SOCl_2
- C) PBr_3
- D) All of the above

Q25: Which of the following is a *benzyl halide*?

- A) $\text{C}_6\text{H}_5\text{CH}_2\text{Cl}$
- B) $\text{C}_6\text{H}_5\text{Cl}$
- C) $\text{CH}_3\text{CH}_2\text{Br}$
- D) $\text{CH}_2=\text{CHBr}$

Q26: Order of *leaving group ability* (best first) is:

- A) $\text{I}^- > \text{Br}^- > \text{Cl}^- > \text{F}^-$
- B) $\text{F}^- > \text{Cl}^- > \text{Br}^- > \text{I}^-$
- C) $\text{Cl}^- > \text{Br}^- > \text{I}^- > \text{F}^-$
- D) $\text{Br}^- > \text{Cl}^- > \text{I}^- > \text{F}^-$

Q27: Which will undergo *E2 elimination* most readily with alcoholic KOH?

- A) 1-Bromopropane
- B) 2-Bromopropane
- C) tert-Butyl bromide
- D) Chlorobenzene

Q28: Which haloarene does not undergo nucleophilic substitution easily?

- A) Chlorobenzene
- B) Bromobenzene
- C) Fluorobenzene
- D) All of the above

Q29: Which of the following compounds is a *geminal dihalide*?

- A) $\text{CH}_2\text{Cl}-\text{CH}_2\text{Cl}$
- B) $\text{CHCl}_2-\text{CH}_3$
- C) $\text{CH}_3\text{CH}_2\text{Cl}$
- D) CCl_4

Q30: Which of these is a *vinyl halide*?

- A) $\text{CH}_2=\text{CHCl}$
- B) $\text{CH}_3\text{CH}_2\text{Cl}$
- C) CH_2Br_2
- D) $\text{C}_6\text{H}_5\text{Br}$

Q31: Which reagent can convert $\text{CH}_3\text{CH}_2\text{Br}$ to $\text{CH}_3\text{CH}_2\text{OH}$?

- A) NaCN
- B) KOH(aq)
- C) NaH
- D) AlCl_3

Q32: Which of the following undergoes *SN1* exclusively?

- A) Benzyl chloride
- B) Ethyl chloride
- C) Chlorobenzene
- D) Isopropyl chloride

Q33: Which has the highest *C-X bond polarity*?

- A) C-F
- B) C-Cl
- C) C-Br
- D) C-I

Q34: Which of the following is *not* a haloalkane?

- A) $\text{CH}_3\text{CH}_2\text{Br}$
- B) CH_3Cl
- C) $\text{C}_6\text{H}_5\text{Br}$
- D) $\text{CH}_3\text{CH}_2\text{CH}_2\text{I}$

Q35: Which of the following reactions is an example of *nucleophilic substitution*?

- A) Hydrolysis of R-Cl
- B) Dehydrohalogenation
- C) Addition to alkene
- D) Free radical halogenation

Q36: Which of these is a *secondary haloalkane*?

- A) $\text{CH}_3\text{CH}(\text{Br})\text{CH}_3$
- B) $\text{CH}_3\text{CH}_2\text{Br}$
- C) $\text{CH}_3\text{CH}_2\text{CH}_2\text{Cl}$
- D) $(\text{CH}_3)_3\text{CBr}$

Q37: Which reagent promotes elimination to give alkene from R-Br?

- A) $\text{KOH}(\text{aq})$
- B) $\text{KOH}(\text{alc})$
- C) NaCl
- D) H_2O

Q38: Which of the following haloalkanes will be most reactive in $\text{S}_\text{N}2$?

- A) methyl chloride
- B) 1-chlorobutane
- C) 2-chloro-2-methylpropane
- D) chlorobenzene

Q39: Which is a characteristic reaction of haloarenes with diazonium salts?

- A) Sandmeyer reaction
- B) Wurtz reaction
- C) Cannizzaro reaction
- D) Aldol condensation

Q40: When propene reacts with HBr under peroxides, the major product is:

- A) 2-Bromopropane
- B) 1-Bromopropane
- C) Propane
- D) Allyl bromide

Q41: Which of the following is true about haloarenes compared to haloalkanes?

- A) More reactive in S_N2
- B) Less reactive in nucleophilic substitution
- C) More reactive in elimination
- D) React easily with NaOH(aq)

Q42: Which of the following is a primary haloalkane?

- A) $\text{CH}_3\text{CH}_2\text{Br}$
- B) $\text{CH}_3\text{CH}(\text{Br})\text{CH}_3$
- C) $\text{CH}_3\text{C}(\text{Br})(\text{CH}_3)_2$
- D) $\text{C}_6\text{H}_5\text{Br}$

Q43: The hybridization of the carbon bearing the halogen in haloalkanes is:

- A) sp
- B) sp^2
- C) sp^3
- D) none

Q44: Which reagent can convert chlorobenzene to phenol (via substitution)?

- A) NaOH (aq) , heat
- B) KOH(alc)
- C) LiAlH_4
- D) HCl

Q45: Which of the following halides undergoes only S_N2 , not S_N1 ?

- A) 1-Bromopropane
- B) tert-Butyl bromide
- C) Benzyl chloride
- D) 2-Bromo-2-methylpropane

Q46: Which of the following is a common example of a *polyhalogen compound* used as solvent?

- A) Chloroform (CHCl_3)
- B) Methane
- C) Ethanol
- D) Benzene

Q47: Which reagent will replace halogen with CN in R-X ?

- A) NaCN
- B) H_2O
- C) NaOH(aq)
- D) Zn

Q48: Which haloalkane is likely to form a carbocation intermediate?

- A) tert-Butyl chloride
- B) methyl chloride
- C) 1-Chloropropane
- D) Vinyl chloride

Q49: Which of the following undergoes dehydrohalogenation to give alkene under basic conditions?

- A) $\text{CH}_3\text{CHBrCH}_3$
- B) $\text{CH}_3\text{CH}_2\text{Cl}$
- C) $\text{C}_6\text{H}_5\text{Cl}$
- D) CH_3Cl

Q50: Which halide is most reactive in nucleophilic substitution?

- A) CH_3I
- B) CH_3Br
- C) CH_3Cl
- D) CH_3F

Q51: In haloalkanes, halogen is bonded to carbon of which hybridization?

- A) sp
- B) sp^2
- C) sp^3
- D) none

Q52: Which halide is expected to show least $\text{S}_\text{N}2$ reactivity?

- A) CH_3Cl
- B) CH_3Br
- C) CH_3I
- D) tert-Butyl chloride

Q53: Which of the following is an *aryl halide*?

- A) $\text{C}_6\text{H}_5\text{Cl}$
- B) $\text{CH}_3\text{CH}_2\text{Cl}$
- C) BrCH_2CH_3
- D) CH_3Cl

Q54: Which reagent replaces halogen with OH in aromatic ring via nucleophilic substitution?

- A) Hot aq. KOH
- B) HCl
- C) Zn/HCl
- D) H_2/Pd

Q55: Which haloalkane yields alkene upon heating with alcoholic KOH?

- A) $\text{CH}_3\text{CHBrCH}_3$
- B) $\text{CH}_3\text{CH}_2\text{Br}$
- C) CH_3Cl
- D) $\text{C}_6\text{H}_5\text{Cl}$

Q56: Which of the following is least reactive in $\text{S}_\text{N}1$ reaction?

- A) tert-Butyl chloride
- B) $\text{C}_6\text{H}_5\text{CH}_2\text{Cl}$
- C) 1-Chloropropane
- D) Benzyl chloride

Q57: Which of the following is an example of heterolytic cleavage?

- A) C-Br bond breaking to give Br⁻ and carbocation
- B) C-C bond homolysis
- C) Cl₂ splitting to radicals
- D) None

Q58: Which haloalkane upon reaction with Zn and dry ether yields Wurtz product?

- A) CH₃Cl
- B) CH₃Br
- C) Both
- D) Neither

Q59: Which factor does *not* affect S_N2 reaction rate?

- A) Nature of substrate
- B) Strength of nucleophile
- C) Leaving group ability
- D) Solubility of product

Q60: Which reaction involves backside attack on carbon bearing halogen?

- A) S_N1
- B) S_N2
- C) E1
- D) E2

Q61: The IUPAC name of CH₃CH(Br)CH₂CH₃ is:

- A) 1-Bromobutane
- B) 2-Bromobutane
- C) 1-Bromopropane
- D) 2-Bromopropane

Q62: Which of the following is an example of a *voltage effect* that favors anti-Markovnikov addition?

- A) Peroxides in addition of HBr
- B) Heat with KOH(aq)
- C) Light with Br₂
- D) Cold conditions

Q63: Which reaction mechanism involves a *backside attack*?

- A) S_N1
- B) S_N2
- C) E1
- D) E1cB

Q64: Which is *not* a typical characteristic of haloarenes?

- A) Undergo S_N2 easily
- B) Bonded halogen to sp² carbon
- C) Less reactive than haloalkanes
- D) Require harsh conditions for substitution

Q65: Which of the following is a *tertiary haloalkane*?

- A) $(\text{CH}_3)_3\text{CBr}$
- B) $\text{CH}_3\text{CH}_2\text{Br}$
- C) $\text{CH}_3\text{CH}(\text{Br})\text{CH}_3$
- D) $\text{C}_6\text{H}_5\text{CH}_2\text{Br}$

Q66: Which reagent converts alcohols to haloalkanes with inversion of configuration?

- A) PCl_5
- B) $\text{SOCl}_2 + \text{pyridine}$
- C) $\text{HCl} / \text{ZnCl}_2$
- D) $\text{Br}_2 / h\nu$

Q67: Which of these halogen substituents is *most reactive in $\text{S}_\text{N}1$ *?

- A) CH_3Cl
- B) CH_3Br
- C) CH_3I
- D) CH_3F

Q68: Which of the following is an *aryl halide*?

- A) $\text{C}_6\text{H}_5\text{Cl}$
- B) $\text{CH}_3\text{CH}_2\text{Cl}$
- C) CH_2Br_2
- D) $\text{C}_2\text{H}_5\text{Br}$

Q69: Which reagent is needed for the Wurtz reaction?

- A) Sodium in dry ether
- B) H_2/Pd
- C) $\text{KOH}(\text{aq})$
- D) HBr

Q70: Which of the following undergoes *E2 elimination* readily?

- A) tert-Butyl bromide with alcoholic KOH
- B) Methyl chloride with aqueous KOH
- C) Chlorobenzene with water
- D) Vinyl chloride with cold base

Q71: Which of these is a *geminal dihalide*?

- A) $\text{CH}_2\text{Cl}-\text{CH}_2\text{Cl}$
- B) $\text{CHCl}_2-\text{CH}_3$
- C) $\text{CH}_3\text{CH}_2\text{Cl}$
- D) CCl_4

Q72: The mechanism in which a carbocation intermediate is formed is:

- A) $\text{S}_\text{N}2$
- B) $\text{S}_\text{N}1$
- C) $\text{E}2$
- D) Free radical substitution

Q73: Which of the following will give an *alcohol* when hydrolyzed with aq. KOH?

- A) CH_3Br
- B) $\text{C}_6\text{H}_5\text{Br}$
- C) $\text{CH}_2=\text{CHBr}$
- D) $\text{CH}_3\text{CHBrCH}_3$

Q74: Fluorobenzene differs from other haloarenes in that it is:

- A) More reactive in $\text{S}_\text{N}1$
- B) Most reactive in $\text{S}_\text{N}2$
- C) Less reactive generally
- D) Soluble in water

Q75: Which type of carbon immediately attached to X in haloalkanes is sp^3 hybridized?

- A) Aryl
- B) Alkyl
- C) Vinyl
- D) All of the above

Q76: Which product is formed by elimination of HBr from 2-bromobutane with alcoholic KOH?

- A) But-1-ene
- B) But-2-ene
- C) Butane
- D) 1-Bromobutane

Q77: Which reagent does NOT typically replace -OH with -Cl?

- A) PCl_5
- B) SOCl_2
- C) PBr_3
- D) HCl/ZnCl_2

Q78: Benzyl chloride on reaction with NaCN gives:

- A) Benzyl cyanide
- B) Benzoic acid
- C) Phenol
- D) Benzene

Q79: Which reagent is used to prepare alkyl fluorides from alcohols?

- A) $\text{HF}/\text{P}_2\text{O}_5$
- B) HCl
- C) HBr
- D) HI

Q80: Which process describes the Wurtz reaction?

- A) Coupling of alkyl halides
- B) Elimination of HX
- C) Hydrohalogenation of alkenes
- D) Free radical bromination

Q81: When phenyl chloride reacts with hot alkali, it forms:

- A) Phenol
- B) Chlorobenzene
- C) Benzene
- D) Aniline

Q82: The general formula of haloalkanes is:

- A) $C_nH_{2n+2}X$
- B) $C_nH_{2n}X$
- C) $C_nH_{2n-2}X$
- D) $C_nH_{2n+1}X$

Q83: Which of these is educationally classified as a *vinyl halide*?

- A) $CH_2=CHCl$
- B) C_6H_5Cl
- C) CH_3Br
- D) CH_2Br_2

Q84: Which halide is most easily eliminated to give an alkene?

- A) tert-Butyl bromide
- B) Methyl chloride
- C) Vinyl chloride
- D) Chlorobenzene

Q85: Which process converts haloalkanes to hydrocarbons?

- A) Reduction with Zn/HCl
- B) Hydrolysis with $NaOH(aq)$
- C) Reaction with $NaCN$
- D) Addition to alkenes

Q86: What is the common name of $(CH_3)_2CHCl$?

- A) Isopropyl chloride
- B) Ethyl chloride
- C) Methyl chloride
- D) n-Propyl chloride

Q87: Which of the following is an example of vinyl halide?

- A) $CH_2=CHCl$
- B) $C_6H_5CH_2Cl$
- C) CH_3CH_2Cl
- D) CH_2Br_2

Q88: Which of the following reagents is most suitable for preparing alkyl fluorides from alcohols?

- A) HF/P_2O_5
- B) PCl_5
- C) HBr
- D) HCl

Q89: Which of the following is NOT correct about haloarenes?

- A) More reactive in S_N2 than haloalkanes
- B) Halogen attached to sp^2 carbon
- C) Less reactive towards nucleophilic substitution
- D) Require harsh conditions for substitution

Q90: Which of the following is a benzyl halide?

- A) $C_6H_5CH_2Cl$
- B) C_6H_5Cl
- C) CH_3CH_2Br
- D) $CH_3CH_2CH_2Cl$

Q91: What is the IUPAC name of CH_2Cl_2 ?

- A) Dichloromethane
- B) Chloromethane
- C) Methane dichloride
- D) Methylene chloride

Q92: Which of the following undergoes nucleophilic substitution by S_N1 mechanism preferentially?

- A) Benzyl chloride
- B) Ethyl chloride
- C) Chlorobenzene
- D) Methyl chloride

Q93: Which haloalkane on elimination with alcoholic KOH gives predominantly but-2-ene?

- A) 2-Bromobutane
- B) 1-Bromobutane
- C) tert-Butyl chloride
- D) Chlorobenzene

Q94: Which of the following reacts fastest with aqueous $AgNO_3$ to give a precipitate?

- A) CH_3I
- B) CH_3Br
- C) CH_3Cl
- D) CH_3F

Q95: Which reagent is used in Grignard reagent preparation?

- A) Dry ether
- B) Alcoholic KOH
- C) Aqueous NaOH
- D) Conc. HCl

Q96: Which of the following is a polyhalogen compound often used as solvent?

- A) Chloroform ($CHCl_3$)
- B) Ethanol
- C) Cyclohexane
- D) Acetone

Q97: Which of the following conditions does NOT favor SN1 reactions?

- A) Polar protic solvents
- B) Tertiary haloalkanes
- C) Strong nucleophiles
- D) Stable carbocation

Q98: Which of these compounds is least reactive towards SN2?

- A) CH₃Cl
- B) CH₃Br
- C) CH₃I
- D) tert-Butyl chloride

Q99: In haloalkanes, the carbon attached to the halogen is always:

- A) sp³ hybridized
- B) sp² hybridized
- C) sp hybridized
- D) sp³d

Q100: Which of the following haloalkanes on reaction with NaCN gives a nitrile?

- A) CH₃Br + NaCN
- B) C₆H₅Br + NaCN
- C) CH₂=CHCl + NaCN
- D) Chlorobenzene + NaCN

Q101: Which of the following does NOT undergo SN2 under normal conditions?

- A) Methyl chloride
- B) 1-Bromopropane
- C) Chlorobenzene
- D) CH₃CH₂Br

Q102: Which of the following haloalkanes gives predominantly an ether with sodium ethoxide?

- A) CH₃Br
- B) 2-Bromopropane
- C) 1-Chlorobutane
- D) Chlorobenzene

Q103: Which reagent will replace halogen with OH in aromatic ring under harsh conditions?

- A) Hot aqueous KOH
- B) Cold aq. NaOH
- C) NaBH₄
- D) LiAlH₄

Q104: In haloalkane nomenclature, which type of halide has two halogens on adjacent carbons?

- A) Geminal dihalide
- B) Vicinal dihalide
- C) Polyhalide
- D) Isohalide

Q105: Which of the following will undergo elimination to form an alkene?

- A) tert-Butyl bromide with alcoholic KOH
- B) Methyl chloride with water
- C) Vinyl chloride with cold base
- D) Chlorobenzene with aq. base

Q106: Which halogen has the strongest C-X bond in haloalkanes?

- A) F
- B) Cl
- C) Br
- D) I

Q107: Which of the following is *not* a typical reagent to convert alcohols into haloalkanes?

- A) PCl_5
- B) SOCl_2
- C) HBr
- D) NaOH(aq)

Q108: Which of the following is an *allylic halide*?

- A) $\text{CH}_2=\text{CH}-\text{CH}_2\text{Br}$
- B) $\text{CH}_3\text{CH}_2\text{Br}$
- C) $\text{CH}_3\text{CHBrCH}_3$
- D) $\text{C}_6\text{H}_5\text{Br}$

Q109: Which of the following is true about haloalkanes' boiling points?

- A) Increase with molecular mass
- B) Decrease with molecular mass
- C) Independent of molecular mass
- D) All are gases

Q110: Which halide yields a Grignard reagent with Mg in dry ether?

- A) Alkyl halide
- B) Aryl halide
- C) Vinyl halide
- D) All of the above

Q111: Which of these reacts fastest in $\text{S}_\text{N}2$?

- A) CH_3I
- B) CH_3Br
- C) CH_3Cl
- D) CH_3F

Q112: Which of the following reagents is used to test for halide ions by precipitating AgX ?

- A) AgNO_3
- B) BaCl_2
- C) FeCl_3
- D) Tollens' reagent

Q113: Which haloalkane is most likely to undergo E1 elimination?

- A) tert-Butyl chloride
- B) Methyl chloride
- C) 1-Chloropropane
- D) Vinyl chloride

Q114: Which of the following is not a haloalkane or haloarene?

- A) $\text{C}_6\text{H}_5\text{Cl}$
- B) CH_3Cl
- C) CH_3OH
- D) CH_2Br_2

Q115: Which effective reagent forms ethers from haloalkanes?

- A) RO^-
- B) H_2O
- C) Dil. HCl
- D) O_2

Q116: Which hybridization does the carbon attached to halogen have in haloalkanes?

- A) sp
- B) sp^2
- C) sp^3
- D) none

Q117: What is the product when $\text{CH}_3\text{CH}_2\text{Br}$ reacts with NaOH (aq) ?

- A) Ethanol
- B) Ethene
- C) Ethane
- D) Diethyl ether

Q118: Which haloarene reacts with hot NaOH to form phenol?

- A) Chlorobenzene
- B) Bromobenzene
- C) Fluorobenzene
- D) Iodobenzene

Q119: Which reagent is used for free radical halogenation of alkanes?

- A) $\text{Cl}_2 / h\nu$
- B) NaOH(aq)
- C) Pd/H_2
- D) SOCl_2

Q120: Which of the following is a *vicinal dihalide*?

- A) $\text{CHCl}_2\text{-CHCl}_2$
- B) $\text{CH}_2\text{Cl-CH}_3$
- C) $\text{CH}_3\text{CH}_2\text{Cl}$
- D) $\text{C}_6\text{H}_5\text{Cl}$

Q121: Which haloalkane can form stable carbocation readily aiding SN1?

- A) tert-Butyl chloride
- B) CH₃Cl
- C) CH₃CH₂Cl
- D) Vinyl chloride

Q122: Which of the following alkanes upon chlorination can give optically active products?

- A) 2-Butane
- B) Propane
- C) Butane
- D) Methane

Q123: Which halide is least reactive towards SN2?

- A) CH₃F
- B) CH₃Cl
- C) CH₃Br
- D) CH₃I

Q124: People practice Haloalkanes & Haloarenes MCQs because they are present in which exam section?

- A) Organic Chemistry - Reactions
- B) Inorganic Chemistry
- C) Physical Chemistry only
- D) Mathematics

Q125: Hot alcoholic KOH converts haloalkanes to:

- A) Alkenes
- B) Alcohols
- C) Alkanes
- D) Ethers