

## CBSE Class 12 Chemistry Chapter 10 Haloalkanes and Haloarenes Worksheet – Set 4

**Q1.** A silver salt of fatty acid on heating with an alkyl halide gives

- (a) Ether
- (b) Ester
- (c) Alcohol
- (d) None of the above

**Q2.** Chlorination of  $\text{CS}_2$  gives

- (a)  $\text{CCl}_4$
- (b)  $\text{CS}_2\text{Cl}_2$
- (c)  $\text{CH}_4$
- (d) None of the above

**Q3.** Sodium ethoxide reacts with ethyl iodide to yield

- (a)  $\text{CH}_3\text{CH}_3$
- (b)  $\text{C}_2\text{H}_5\text{OCH}_3$
- (c)  $\text{C}_2\text{H}_5\text{OC}_2\text{H}_5$
- (d) None of the above

**Q4.** Propyl iodide and isopropyl iodide are

- (a) Position isomers
- (b) Functional isomers
- (c) Chain isomers
- (d) None of the above

**Q5.** A magnesium alkyl halide is known as

- (a) Grignard reagent
- (b) Fenton reagent
- (c) Twichell reagent
- (d) None of the above

**Q6.** What is a Lucas reagent?

**Q7.** What is Finkelstein's reaction?

**Q8.** Why is the C-Cl bond length of chloro benzene shorter than that of methyl chloride?

- Q9.** Why is the dipole moment of chlorobenzene lower than that of cyclohexyl chloride?
- Q10.** Why are  $S_N1$  reactions accompanied by racemisation in optically active alkyl halides?
- Q11.** Which one of the following among  $(CH_3)_3C-Br$  and  $(CH_3)_3C-I$  will be more reactive towards  $SN_1$ ? Give reason.
- Q12.** What will happen if p-nitro chlorobenzene is heated with aqueous NaOH at 443 K followed by acidification?
- Q13.** Why dextro and levorotatory isomers of Butan-2-ol are challenging to isolate by fractional distillation?
- Q14.** Among the given compounds, 2-Bromo pentane, 2-Bromo-2-methyl butane, and 1-Bromo pentane.  
(a) Which of the following is most reactive towards an  $SN_2$  reaction?  
(b) Which of the following is optically active?  
(c) Which of the following is most reactive towards  $\beta$ -elimination reaction?
- Q15.** Among  $CH_3CH(Cl)CH_2CH_3$  and  $CH_3CH_2CH_2Cl$ , Which one of the following compounds will be more reactive towards the  $SN_2$  reaction? Give reason.
- Q16.** What is chirality? Explain with an example.
- Q17.** Differentiate between  $S_N1$  and  $S_N2$  reactions.
- Q18.** What is the maximum number of isomers possible in the monochlorination of methyl cyclobutane?
- Q19.** Convert chlorobenzene to biphenyl.
- Q20.** Convert 2-bromobutane to but-2-ene.