

CBSE Class 12 Chemistry Chapter 11 Alcohols, Phenols, and Ethers Worksheet – Set 5

Q1. Iodoform can be used in medicine as an

- (a) Anaesthetic
- (b) Analgesic
- (c) Antiseptic
- (d) None of the above

Q2. Which of the following compound gives a positive iodoform test?

- (a) Formaldehyde
- (b) Acetaldehyde
- (c) Methanol
- (d) None of the above

Q3. Alkyl halide gives alcohol on hydrolysis with

- (a) Aqueous sodium hydroxide
- (b) Alcoholic sodium hydroxide
- (c) Both (a) and (b)
- (d) None of the above

Q4. The reaction of ethanol and methyl magnesium bromide gives

- (a) Methane
- (b) Ethane
- (c) Propane
- (d) None of the above

Q5. What is the molecular formula of chloral hydrate?

- (a) $\text{CCl}_3\text{CH}(\text{OH})_2$
- (b) $\text{CCl}_3\text{CH}_2\text{OH}$
- (c) $\text{CCl}_3\text{CH}_2\text{COOH}$
- (d) $\text{CCl}_3\text{CH}_2\text{CCl}_2\text{OH}$

Q6. Arrange the following sets of compounds in order of their increasing boiling points.
Pentanol, butanol, butan-2-ol, ethanol, propanol, and methanol

Q7. Arrange the following sets of compounds in order of their increasing boiling points.
Pentanol, n-butane, pentanal, ethoxyethane.

- Q8.** Give the structures and IUPAC names of monohydric phenols of molecular formula C_7H_8O .
- Q9.** Convert chloro benzene to phenol.
- Q10.** Explain why aniline does not undergo Friedel- Crafts reaction.
- Q11.** Why is phenol more acidic than alcohol?
- Q12.** Why are ethers used as a solvent?
- Q13.** Explain Williamson's synthesis reaction.
- Q14.** Why is the C=O bond of alcohol larger than the C=O bond of alcohol?
- Q15.** What is Kolbe's reaction?
- Q16.** Write the mechanism of hydration of ethene to ethanol.
- Q17.** Why does propanol have a higher boiling point than butane?
- Q18.** Why are alcohols more soluble in water than hydrocarbons of comparable molecular masses?
- Q19.** Write the structures of the major products from the following reactions.
(a) Dinitration of 3-methyl phenol
(b) Mononitration of phenyl methanoate.
- Q20.** Give the structures and IUPAC names of the products from the following reactions:
(a) Catalytic reduction of butanal.
(b) Hydration of propene in the presence of dilute sulphuric acid.
(c) The reaction of propanone with methylmagnesium bromide, followed by hydrolysis.