

Alcohols Phenols Ethers Summary



Here are 30 fill-in-the-blank questions related to alcohols, phenols, and ethers:

1. Alcohols are organic compounds containing the —OH group attached to a(n) _____ group.
2. In phenols, the —OH group is directly attached to a _____ ring.
3. Ethers are organic compounds where the oxygen atom is connected to two _____ or _____ groups.
4. The general formula for ethers is $\mathbf{R - O - R'}$, where R and R' represent _____ or _____ groups.
5. Alcohols can be classified as primary, secondary, or _____ depending on the carbon atom to which the —OH group is attached.
6. Methanol is commonly known as _____ alcohol.
7. Phenols react with sodium hydroxide to form _____ and water.
8. In Williamson's synthesis, an alkyl halide reacts with a(n) _____ to form an ether.
9. A common use of diethyl ether is as a(n) _____ in surgeries.
10. Phenol reacts with benzene diazonium chloride to form a(n) _____ dye.
11. The IUPAC name of glycerol is _____.
12. The reaction of alcohol with a carboxylic acid forms a(n) _____.
13. The formula for ethanol is _____.
14. The dehydration of alcohols forms _____.
15. Phenol gives a violet coloration with _____ chloride solution.
16. Methanol is used as an industrial _____.
17. Propan-2-ol is a(n) _____ alcohol.
18. Alcohols react with metals like sodium to form _____ and hydrogen gas.
19. In Reimer-Tiemann reaction, phenol reacts with chloroform and sodium hydroxide to produce _____.
20. Ethanol is commonly used as an _____ to petrol.
21. Phenols are more _____ than alcohols due to resonance stabilization.
22. A mixture of phenol and formaldehyde produces _____, a common plastic material.
23. Ethers are less reactive due to the presence of a(n) _____ oxygen atom.
24. Ethers can be cleaved by hot concentrated _____ acid to give alcohols.
25. An example of a polyhydric alcohol is _____.
26. The boiling point of alcohols is higher than that of ethers due to _____ bonding.
27. The process of removing water from alcohol to form an alkene is called _____.
28. The Williamson synthesis is used for preparing _____ ethers.
29. In acidic solutions, phenols undergo _____ substitution reactions.
30. Alcohols can act as both acids and _____ due to the presence of the hydroxyl group.

Key Answers:

1. alkyl
2. benzene
3. alkyl, aryl
4. alkyl, aryl
5. tertiary

6. wood
7. sodium phenoxide
8. alkoxide
9. anesthetic
10. red-orange
11. propane-1,2,3-triol
12. ester
13. C_2H_5OH
14. alkene
15. ferric
16. solvent
17. secondary
18. alkoxides
19. salicylaldehyde
20. additive
21. acidic
22. bakelite
23. sp^3 -hybridized
24. hydroiodic
25. glycerol
26. hydrogen
27. dehydration
28. mixed
29. electrophilic
30. bases