

CHAPTER 11

ALCOHOLS, PHENOLS AND ETHERS

MULTIPLE CHOICE QUESTIONS

- Williamsons synthesis is used for the synthesis of:**
(a) Phenol (b) Alcohol
(c) Ether (d) Aldehyde
- Aldehydes after catalytic reduction change to:**
(a) P° alcohol (b) S° alcohol
(c) T° alcohol (d) P° and S° alcohol
- When ether is protonated, the conjugate acid formed is called:**
(a) An oxonium ion (b) Carbanion
(c) An oxide ion (d) A hydration ion
- Which of the following alcohol is commonly used as anti-freeze:**
(a) Methanol (b) Ethanol
(c) Ethylene glycol (d) All of the above
- Which of the following will have the highest boiling point:**
(a) Methanal (b) Ethanal
(c) Propanal (d) 2-hexanone
- 95% ethanol is called:**
(a) Absolute alcohol (b) Rectified spirit
(c) Methylated spirit (d) Wood spirit
- Which of the following alcohol is used in the perfumes and for flavouring:**
(a) Methanol (b) Ethanol
(c) 1-propanol (d) 1-butanol

8. According to Lewis concept ethers behaves as:
- (a) Acid (b) Base
(c) Acid as well as base (d) None of above
9. Which enzyme is not involved in fermentation of starch:
- (a) Diastase (b) Zymase
(c) Urease (d) Maltase
10. The hydrolysis of sugar is called:
- (a) Condensation (b) Polymerization
(c) Inversion (d) Reduction
11. Which compound shows maximum hydrogen bonding with water:
- (a) C_6H_5OH (b) C_2H_5OH
(c) $CH_3 - O - CH_3$ (d) n-hexanol
12. Which statement is incorrect about phenol:
- (a) It is colourless, crystalline poisonous solid
(b) It does not turn blue litmus paper red
(c) It liberates CO_2 gas from carbonate
(d) Above $65.9^\circ C$ it is miscible wither water
13. Which of the following is the weakest acid:
- (a) Phenol (b) Alcohol
(c) Carboxylic acid (d) Water
14. Which inorganic reagent may be used to distinguish between phenol and methanol:
- (a) Alkaline aqueous I_2 (b) Aqueous $NaHCO_3$
(c) $K_2Cr_2O_7$ in dil. H_2SO_4 (d) Na
15. Phenol is also called:
- (a) Carbonic acid (b) Carbolic acid
(c) Carboxylic acid (d) Fatty acid
16. Which of the following give iodoform test:
- (a) CH_3OH (b) C_2H_5OH
(c) Methanal (d) 1-propanol

17. Which of the following is more reactive where O – H bonds break:
- (a) P° alcohol (b) S° alcohol
(c) T° alcohol (d) Cannot be predicted
18. Which of the following alcohol is least soluble in water:
- (a) CH₃OH (b) C₂H₅OH
(c) C₃H₇OH (d) C₄H₉OH
19. 100% pure alcohol is called:
- (a) Methylated spirit (b) Rectified spirit
(c) Power alcohol (d) Absolute alcohol
20. The correct name of H₂C = CH – CH₂ – CH₂ – OH is:
- (a) 1-butene-4-ol (b) 2-butene-1-ol
(c) 3-butene-1-ol (d) None of these
21. Which of the following is more reactive:
- (a) Benzene (b) Phenol
(c) Nitrobenzene (d) Benzoic acid
22. Bakelite is thermosetting plastic, it is formed by the polymerization of:
- (a) Ethanol and formaldehyde (b) Phenol and ethanol
(c) Phenol and formaldehyde (d) Phenol and acetaldehyde
23. Which of the following compound should have lowest boiling point:
- (a) C₂H₆ (b) C₂H₅Cl
(c) CH₃ – O – CH₃ (d) C₂H₅OH
24. Ethanol can be converted into ethanoic acid by:
- (a) Hydrogenation (b) Fermentation
(c) Oxidation (d) Hydration
25. When 2-pentanol undergoes oxidation the product is:
- (a) Pentanol (b) 3-pentanone
(c) 2-pentanone (d) Pentanoic acid
26. When ethyl bromide (C₂H₅Br) is heated with Ag₂O in the absence of moisture the product formed is:
- (a) Ethanol (b) Diethyl ether
(c) Ethanal (d) Ethene

27. Which of the following compound has no unsaturation:
- (a) Methanal (b) Methoxy methane
(c) Phenol (d) Benzoic acid
28. The conversion of ethanol to ethene is an example of:
- (a) Dehydration (b) Hydration
(c) Hydrogenation (d) Fermentation
29. Ethanol reacts with sodium metal to liberate:
- (a) CO₂ gas (b) H₂ gas
(c) CO gas (d) Steam
30. Diethyl ether can be decomposed by heating with:
- (a) HI (b) NaOH
(c) Water (d) KMnO₄

answers

1.	(c)	2.	(a)	3.	(a)	4.	(c)	5.	(d)
6.	(b)	7.	(d)	8.	(b)	9.	(c)	10.	(c)
11.	(b)	12.	(c)	13.	(b)	14.	(c)	15.	(b)
16.	(b)	17.	(a)	18.	(d)	19.	(d)	20.	(c)
21.	(b)	22.	(c)	23.	(a)	24.	(c)	25.	(c)
26.	(b)	27.	(b)	28.	(a)	29.	(b)	30.	(a)