EXERCISE-I

GENERAL INTRODUCTION OF ALCOHOL, PHENOL & ETHERS

1. Carbinol is
(A) C_2H_5OH
(B) CH_3OH
(C) $(CH_3)_2CHOH$
(D) $CH_3CH_2CH(OH)CH_3$

2. General formula of primary alcohol is
(A) $>CHOH$ (B) $\geq C\ OH$
(C) $-CH_2OH$ (D) $=C\begin{matrix}OH\\OH\end{matrix}$

3. Which of following is phenolic
(A) Phthalic acid (B) Phosphoric acid
(C) Picric acid (D) Phenylacetic acid

4. 1, 2, 3-trihydroxybenzene is also known as
(A) Pyrogallol (B) Phloroglucinol
(C) Resorcinol (D) Quinol

5. Butanal is an example of
(A) Primary alcohol
(B) Secondary alcohol
(C) Aliphatic aldehyde
(D) Aliphatic ketone

6. Cyclohexanol is a
(A) Primary alcohol
(B) Secondary alcohol
(C) Tertiary alcohol
(D) Phenol

7. The characteristic grouping of secondary alcohols is
(A) $-CH_2OH$ (B) $>CHOH$
(C) $-\overset{|}{\underset{|}{C}}-OH$ (D) $>C\begin{matrix}OH\\OH\end{matrix}$

8. Which of the following are isomers
(A) Methyl alcohol and dimethyl ether
(B) Ethyl alcohol and dimethyl ether
(C) Acetone and acetaldehyde
(D) Propionic acid and propanone

9. The compound $HOCH_2-CH_2OH$ is
(A) Ethane glycol
(B) Ethylene glycol
(C) Ethylidene alcohol
(D) Dimethyl alcohol

10. Methylated spirit is
(A) Methanol
(B) Methanol + ethanol
(C) Methanoic acid
(D) Methanamide

11. Wood spirit is known as
(A) Methanol (B) Ethanol
(C) Acetone (D) Benzene

12. Oxygen atom in ether is
(A) Very active
(B) Replaceable
(C) Comparatively inert
(D) Active

13. Which of the following is a simple ether
(A) CH_3OCH_3 (B) $C_2H_5OCH_3$
(C) $C_6H_5OCH_3$ (D) $C_6H_5OC_2H_5$

14. An example of a compound with the functional group '$-O-$' is
(A) Acetic acid (B) Methyl alcohol
(C) Diethyl ether (D) Acetone

15. Which of the following do not contain an acyl group
(A) Acid chloride (B) Amide
(C) Ester (D) Ether

PREPARATION OF ALCOHOL, PHENOL AND ETHERS

16. The reaction given below is known as
$C_2H_5ONa + IC_2H_5 \longrightarrow C_2H_5OC_2H_5 + NaI$
(A) Kolbe's synthesis
(B) Wurtz's synthesis
(C) Williamson's synthesis
(D) Grignard's synthesis

17. Salicylaldehyde can be prepared from
(A) Phenol and chloroform
(B) Phenol, chloroform and sodium hydroxide
(C) Phenol, carbon tetrachloride and *NaOH*
(D) None of these

18. If formaldehyde and potassium hydroxide are heated, then we get
(A) Acetylene (B) Methane
(C) Methyl alcohol (D) Ethyl formate

19. An organic compound dissolved in dry benzene evolved hydrogen on treatment with sodium. It is
(A) A ketone (B) An aldehyde
(C) A tertiary amine (D) An alcohol

20. $A \xrightarrow[\text{dil. } H_2SO_4]{K_2Cr_2O_7} B \xrightarrow[H_2O]{CH_3MgI} CH_3-\underset{\displaystyle OH}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-CH_3$.

The reactant *A* is
(A) $CH_3CHOHCH_3$ (B) CH_3COCH_3
(C) C_2H_5OH (D) CH_3COOH

21. The reaction, water gas $(CO + H_2) + H_2$ $673K, 300$ atmosphere in presence of the catalyst Cr_2O_3 / ZnO is used for the manufacture of
(A) *HCHO* (B) *HCOOH*
(C) CH_3OH (D) CH_3COOH

22. $CH_2 = CH_2 + B_2H_6 \xrightarrow[H_2SO_4]{NaOH}$ Product.

Product in above reaction is
(A) CH_3CH_2CHO (B) CH_3CH_2OH
(C) CH_3CHO (D) None of these

23. Phenolphthalein is obtained by heating phthalic anhydride with conc. H_2SO_4 and
(A) Benzyl alcohol (B) Benzene
(C) Phenol (D) Benzoic acid

24. Maltose on hydrolysis gives
(A) Mannose + glucose
(B) Galactose + glucose
(C) Glucose
(D) Mannose + fructose

25. Absolute alcohol can be obtained from rectified spirit
(A) By removing the water in it using concentrated sulphuric acid
(B) By removing the water using phosphorus pentoxide
(C) By distilling with the appropriate amount of benzene
(D) By distilling over plenty of quick lime

26. The reaction between an ester and excess of Grignard reagent shall finally result in a
(A) Primary alcohol
(B) Secondary alcohol
(C) Tertiary alcohol
(D) Ketone

27. The compound that will react most readily with *NaOH* to form methanol is
(A) $(CH_3)_4N^+I^-$ (B) CH_3OCH_3
(C) $(CH_3)_3S^+I^-$ (D) $(CH_3)_3Cl$

28. When 2-ethylanthraquinol dissolved in a mixture of benzene and cyclohexanol is oxidised, the product is
(A) Ethanol
(B) Hydrogen peroxide
(C) Anthracene
(D) None of these

29. Which gas is eliminated in fermentation
(A) O_2 (B) CO_2
(C) N_2 (D) H_2

30. Action of nitrous acid with ethylamine produces
(A) Ethane (B) Ammonia
(C) Ethyl alcohol (D) Nitroethane

31. Williamson's synthesis is used to prepare
(A) Acetone (B) Diethyl ether
(C) P.V.C. (D) Bakelite

32. When an alkyl halide is allowed to react with a sodium alkoxide the product most likely is
(A) An aldehyde (B) A ketone
(C) An ether (D) A carboxylic acid

33. In Williamson's synthesis, ethoxyethane is prepared by
(A) Passing ethanol over heated alumina
(B) Sodium ethoxide with ethyl bromide
(C) Ethyl alcohol with sulphuric acid
(D) Ethyl iodide and dry silver oxide

34. Formation of diethyl ether from ethanol is based on a
(A) Dehydration reaction
(B) Dehydrogenation reaction
(C) Hydrogenation reaction
(D) Heterolytic fission reaction

35. The compound formed when ethyl bromide is heated with dry silver oxide is
(A) Dimethyl ether (B) Diethyl ether
(C) Methyl alcohol (D) Ethyl alcohol

36. The reagent used for the preparation of higher ether from halogenated ethers is
(A) conc. H_2SO_4 (B) Sodium alkoxide
(C) Dry silver oxide (D) Grignard reagent

37. Acetyl bromide reacts with excess of CH_3MgI followed by treatment with a saturated solution of NH_4Cl gives
(A) 2-methyl-2-propanol
(B) Acetamide
(C) Acetone
(D) Acetyl iodide

38. What is obtained when chlorine is passed in boiling toluene and product is hydrolysed
(A) *o*-Cresol
(B) *p*-Cresol
(C) 2, 4-Dihydroxytoluene
(D) Benzyl alcohol

39. Which of the following is formed when benzaldehyde reacts with sodium hydroxide
(A) Benzyl alcohol (B) Benzoic acid
(C) Glucose (D) Acetic acid

40. When ethanal reacts with CH_3MgBr and C_2H_5OH /dry *HCl* the product formed are
(A) Ethyl alcohol and 2-propanol
(B) Ethane and hemi-acetal
(C) 2-propanol and acetal
(D) Propane and methyl acetate

PROPERTIES OF ALCOHOL, PHENOL AND ETHERS

41. Glycerol reacts with $P_4 + I_2$ to form
(A) Aldehyde (B) Allyl iodide
(C) Allyl alcohol (D) Acetylene

42. When glycerine is added to a litre of water which of the following behaviour is observed
(A) Water evaporates more easily
(B) The temperature of water is increased
(C) The freezing point of water is lowered
(D) The viscosity of water is lowered

43. Final product formed on reduction of glycerol by hydroiodic acid is
(A) Propane (B) Propanoic acid
(C) Propene (D) Propyne

44. Glycerol was distilled with oxalic acid crystals and the products were led into Fehling solution and warmed. Cuprous oxide was precipitated. It is due to
(A) *CO* (B) *HCHO*
(C) CH_3CHO (D) *HCOOH*

45. Kolbe-Schmidt reaction is used for
(A) Salicylic acid (B) Salicylaldehyde
(C) Phenol (D) Hydrocarbon

46. Which of the following explains the viscous nature of glycerol
(A) Covalent bonds
(B) Hydrogen bonds
(C) Vander Wall's forces
(D) Ionic forces

47. On heating glycerol with conc. H_2SO_4, a compound is obtained which has a bad odour. The compound is
(A) Glycerol sulphate
(B) Acrolein
(C) Formic acid
(D) Allyl alcohol

48. Isopropyl alcohol on oxidation forms
(A) Acetone (B) Ether
(C) Ethylene (D) Acetaldehyde

49. Benzenediazonium chloride on reaction with phenol in weakly basic medium gives
(A) Diphenyl ether
(B) *p*-hydroxyazobenzene
(C) Chlorobenzene
(D) Benzene

50. The alcohol that produces turbidity immediately with $ZnCl_2$ + conc. *HCl* at room temperature
(A) 1-hydroxybutane
(B) 2-hydroxybutane
(C) 2-hydroxy-2-methylpropane
(D) 1-hydroxy-2-methylpropane

51. At higher temperature, iodoform reaction is given by
(A) $CH_3CO_2CH_3$ (B) $CH_3CO_2C_2H_5$
(C) $C_6H_5CO_2CH_3$ (D) $CH_3CO_2C_6H_5$

52. Cresol has
(A) Alcoholic – OH (B) Phenolic – OH
(C) – COOH (D) – CHO

53. In $CH_3CH_2OH \xrightarrow[350^oC]{X} CH_2 = CH_2 + H_2O$; '*X*' is
(A) *NaCl* (B) $CaCl_2$
(C) P_2O_5 (D) Al_2O_3

54. Sodium phenoxide reacts with CO_2 at 400K and 4-7 *atm* pressure to give
(A) Sodium salicylate
(B) Salicylaldehyde
(C) Catechol
(D) Benzoic acid

55. The reaction of C_2H_5OH with H_2SO_4 does not give
(A) Ethylene
(B) Diethyl ether
(C) Acetylene
(D) Ethyl hydrogen sulphate

56. The order of stability of carbonium ions is
(A) Methyl > ethyl > iso-propyl > tert-butyl
(B) Tert-butyl> iso-propyl > ethyl > methyl
(C) Iso-propyl > tert-butyl > ethyl > methyl
(D) Tert-butyl> ethyl > iso-propyl > methyl

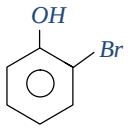
57. Which statement is not correct about alcohol
(A) Alcohol is lighter than water
(B) Alcohol evaporates quickly
(C) Alcohol of less no. of carbon atoms is less soluble in water than alcohol of high no. of carbon atoms
(D) All of these

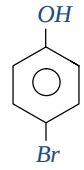
58. An organic compound *A* reacts with sodium metal and forms *B*. On heating with conc. H_2SO_4, *A* gives diethyl ether. *A* and *B* are
(A) C_2H_5OH and C_2H_5ONa
(B) C_3H_7OH and CH_3ONa
(C) CH_3OH and CH_3ONa
(D) C_4H_9OH and C_4H_9ONa

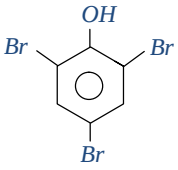
59. In the Liebermann's nitroso reaction, sequential changes in the colour of phenol occurs as
(A) Brown or red $\rightarrow$ green $\rightarrow$ red $\rightarrow$ deep blue
(B) Red $\rightarrow$ deep blue $\rightarrow$ green
(C) Red $\rightarrow$ green $\rightarrow$ white
(D) White $\rightarrow$ red $\rightarrow$ green

60. Which one of the following reactions does not yield an alkyl halide
(A) Diethyl ether $+Cl_2$
(B) Diethyl ether $+HI$
(C) Diethyl ether and PCl_5
(D) Diethyl ether $\xrightarrow{\text{Reduction}} X \xrightarrow{SO_2Cl_2}$

61. With excess bromine, phenol reacts of form

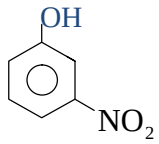
(A) 

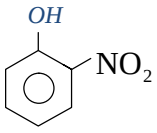
(B) 

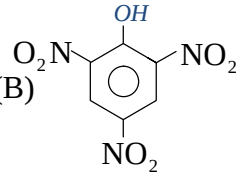
(C) 

(D) Mixture of (A) and (B)

62. Which is obtained on treating phenol, with dilute HNO_3

(A) 

(B) 

(B) 

(D) None of these

63. Primary alcohols on dehydration give
(A) Alkenes
(B) Alkanes
(C) Both (A) and (B)
(D) None of these

64. Primary and secondary alcohols on action of reduced copper give
(A) Aldehydes and ketones respectively
(B) Ketones and aldehydes respectively
(C) Only aldehydes
(D) Only ketones

65. Methyl alcohol on oxidation with acidified $K_2Cr_2O_7$ gives

(A) CH_3COCH_3 (B) CH_3CHO

(C) $HCOOH$ (D) CH_3COOH

66. Ethyl alcohol on oxidation with $K_2Cr_2O_7$ gives

(A) Acetic acid (B) Acetaldehyde
(C) Formaldehyde (D) Formic acid

67. Lucas test is used for

(A) Alcohols (B) Amines
(C) Diethyl ether (D) Glacial acetic acid

68. When phenol reacts with ammonia in presence of $ZnCl_2$ at $300°C$, it gives

(A) Primary amine (B) Secondary amine
(C) Tertiary amine (D) Both (B) and (C)

69. Azo-dyes are prepared from

(A) Aniline (B) Benzaldehye
(C) Benzoic acid (D) Phenol

70. A compound that easily undergoes bromination is

(A) Phenol (B) Toluene
(C) Benzene (D) Benzoic acid

71. Which of the following produces violet colour with $FeCl_3$ solution

(A) Enols (B) Ethanol
(C) Ethanal (D) Alkyl halides

72. When heated with NH_3 under pressure alone or in presence of zinc chloride phenols are converted into
(A) Aminophenols
(B) Aniline
(C) Nitrobenzene
(D)Phenyl hydroxylamine

73. Because of resonance the oxygen atom of $-OH$ group of phenol
(A) Acquires positive charge
(B) Acquires negative charge
(C) Remains uneffected
(D) Liberates

74. When glycerol is heated with $KHSO_4$ it gives

(A) $CH_2 = CH - CH_3$

(B) $CH_2 = CH - CH_2OH$

(C) $CH_2 = CH - CHO$

(D) $CH_2 = C = CH_2$

75. An organic compound *X* on treatment with acidified $K_2Cr_2O_7$ gives a compound *Y* which reacts with I_2 and sodium carbonate to form tri-odomethane. The compound *X* is
(A) CH_3OH (B) $CH_3 - CO - CH_3$
(C) CH_3CHO (D) $CH_3CH(OH)CH_3$

76. The reaction of conc. HNO_3 and phenol forms
(A) Benzoic acid
(B) Salicylic acid
(C) *o*-and *p*-nitrophenol
(D) Picric acid

77. Phenol is
(A) A weaker base than NH_3
(B) Stronger than carbonic acid
(C) Weaker than carbonic acid
(D) A neutral compound

78. Phenol at 25^oC is
(A) A white crystalline solid
(B) A transparent liquid
(C) A gas
(D) Yellow solution

79. At low temperature phenol reacts with Br_2 in CS_2 to form
(A) *m*-bromophenol
(B) *o*-and *p*-bromophenol
(C) *p*-bromophenol
(D) 2, 4, 6-tribromophenol

80. Oxidation of ethanol by chromic acid forms
(A) Ethanol (B) Methanol
(C) 2-propanone (D) Ethanoic acid

81. Which of the following is not true in case of reaction with heated copper at 300^oC
(A) Phenol $\rightarrow$ Benzyl alcohol
(B) Primary alcohol $\rightarrow$ Aldehyde
(C) Secondary alcohol $\rightarrow$ Ketone
(D) Tertiary alcohol $\rightarrow$ Olefin

82. Which of the following is the most suitable method for removing the traces of water from ethanol
(A) Heating with *Na* metal
(B) Passing dry *HCl* through it
(C) Distilling it
(D) Reacting with *Mg*

83. With oxalic acid, glycerol at 260^oC gives
(A) Allyl alcohol
(B) Glyceryl mono-oxalate
(C) Formic acid
(D) Glyceraldehyde

84. Absolute alcohol cannot be prepared by fractional distillation of rectified spirit since
(A) It forms azeotropic mixture
(B) It is used as power alcohol
(C) It is used in wines
(D) None of the above

85. The reagent used for the dehydration of an alcohol is
(A) Phosphorus pentachloride
(B) Calcium chloride
(C) Aluminium oxide
(D) Sodium chloride

86. Which one of the following compounds gives a positive iodoform test
(A) Pentanal (B) 1-phenyl ethanol
(C) 2-phenyl ethanol (D) 3-pentanol

87. What amount of bromine will be required to convert 2 *g* of phenol into 2, 4, 6-tribromophenol
(A) 4.00 (B) 6.00
(C) 10.22 (D) 20.44

88. Ethyl alcohol exhibits acidic character on reacting with
(A) Acetic acid
(B) Sodium metal
(C) Hydrogen iodide
(D) Acidic potassium dichromate

89. The mixture of ethanol and water cannot be separated by distillation because
(A) They form a constant boiling mixture
(B) Alcohol molecules are solvated
(C) Their boiling points are very near
(D) Alcohol remains dissolved in water

90. The reaction between an alcohol and an acid with the elimination of water molecule is called
(A) Esterification (B) Saponification
(C) Etherification (D) Elimination

91. In the esterification reaction of alcohols
(A) OH^- is replaced by CH_3COO group
(B) OH^- is replaced by chlorine
(C) H^- is replaced by sodium metal
(D) OH^- is replaced by C_2H_5OH

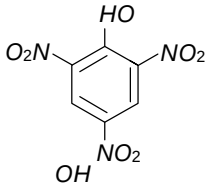
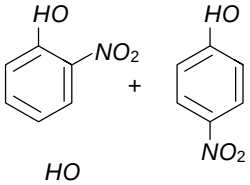
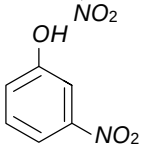
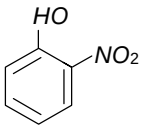
92. A compound *A* on oxidation gave acetaldehyde, then again on oxidation gave acid. After first oxidation it was reacted with ammoniacal $AgNO_3$ then silver mirror was produced. *A* is likely to be
(A) Primary alcohol (B) Tertiary alcohol
(C) Acetaldehyde (D) Acetone

93. Phenol $\xrightarrow[H^+]{CHCl_3/NaOH}$ Salicyldehyde
The above reaction is known as
(A) Riemer Tiemann reaction
(B) Bucherer reaction
(C) Gattermann synthesis
(D) Perkin reaction

94. Alcohol which gives red colour with Victor Meyer test is
(A) C_2H_5OH
(B) $CH_3-\underset{\displaystyle OH}{\underset{|}{CH}}-CH_3$
(C) $C(CH_3)_3OH$
(D) None of these

95. Conc. H_2SO_4 heated with excess of C_2H_5OH at 140^oC to form
(A) $CH_3CH_2-O-CH_3$
(B) $CH_3CH_2-O-CH_2CH_3$
(C) $CH_3-O-CH_2-CH_2-CH_3$
(D) $CH_2=CH_2$

96. Rate of substitution reaction in phenol is
(A) Slower than the rate of benzene
(B) Faster than the rate of benzene
(C) Equal to the rate of benzene
(D) None of these

97. Phenol reacts with dilute HNO_3 at normal temperature to form
(A) 
(B) 
(C) 
(D) 

98. One mole of phenol reacts with bromine to form tribromophenol. How much bromine is used
(A) 1. 5 *mol* (B) 3 *mol*
(C) 4.5 *mol* (D) 6 *mol*

99. In presence of *NaOH*, phenol react with $CHCl_3$ to form *o*-hydroxy benzaldehyde. This reaction is called
(A) Riemer-Tiemann's reaction
(B) Sandmeyer's reaction
(C) Hoffmann's degradation reaction
(D) Gattermann's aldehyde synthesis

100. Which of the following vapours passed over heated copper to form acetone
(A) $H_3C-CH_2-CH_2OH$
(B) $CH_3-\underset{\displaystyle OH}{\underset{|}{CH}}-CH_3$
(C) $\begin{matrix} CH_3 \\ CH_3 \\ CH_3 \end{matrix}\!\!>\!C-OH$
(D) $CH_2=CH-CH_2OH$

101. Alcohols react with Grignard reagent to form
(A) Alkanes (B) Alkenes
(C) Alkynes (D) All of these

102. Action of diazomethane on phenol liberates
(A) O_2 (B) H_2
(C) N_2 (D) CO_2

103. The ring deuteration of phenol
(A) Lowers the acidity
(B) Increases the acidity
(C) Imparts no effect
(D) Causes amphoteric nature

104. In esterification of an acid, the other reagent is
(A) Aldehyde (B) Alcohol
(C) Amine (D) Water

105. Maximum solubility of alcohol in water is due to
(A) Covalent bond
(B) Ionic bond
(C) *H*-bond with H_2O
(D) None of the above

106. Alcohols can be distinguished from alkenes by
(A)Dissolving in cold concentrated H_2SO_4
(B) Decolourizing with bromine in CCl_4
(C) Oxidizing with neutral permanganate solution
(D) None of the above

107. At 25^oC Ethylene glycol is a
(A) Solid compound (B) Liquid
(C) Gas (D) Brown solid

108. When primary alcohol is oxidised with chlorine, it produces
(A) HCHO (B) CH_3CHO
(C) CCl_3CHO (D) C_3H_7CHO

109. Alcohols combine with acetylene in the presence of mercury compounds as catalyst to form
(A) Acetals (B) Xanthates
(C) Vinyl ethers (D) None of the above

110. The compound which will give negative iodoform test is
(A) CH_3CHO
(B) CH_3CH_2OH
(C) Isopropyl alcohol
(D)Benzyl alcohol

111. The products formed in the following reaction $C_6H_5-O-CH_3+HI \xrightarrow{heat}$ are
(A) C_6H_5-I and CH_3-OH
(B) C_6H_5-OH and CH_3-I
(C) $C_6H_5-CH_3$ and *HOI*
(D) C_6H_6 and CH_3OI

112. Etherates are
(A) Ethers
(B) Solution in ether
(C) Complexes of ethers with Lewis acid
(D) Complexes of ethers with Lewis base

113. An ether is more volatile than an alcohol having the same molecular formula. This is due to
(A) Dipolar character of ethers
(B) Alcohols having resonance structures
(C) Inter-molecular hydrogen bonding in ethers
(D) Inter-molecular hydrogen bonding in alcohols

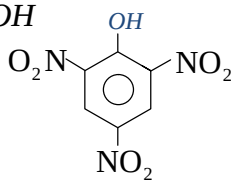
114. When ether is reacted with O_2, it undergoes explosion due to
(A) Peroxide (B) Acid
(C) Ketone (D) TNT

115. The compound which does not react with sodium is
(A) C_2H_5OH
(B) CH_3-O-CH_3
(C) CH_3COOH
(D) $CH_3-CHOH-CH_3$

116. Methyl-terbutyl ether on heating with *HI* of one molar concentration gives
(A) $CH_3I + (CH_3)_3COH$
(B) $CH_3OH + (CH_3)_3Cl$
(C) $CH_3I + (CH_3)_3Cl$
(D) None of the above

117. A substance $C_4H_{10}O$ yields on oxidation a compound C_4H_8O which gives an oxime and a positive iodoform test. The original substance on treatment with conc. H_2SO_4 gives C_4H_8. The structure of the compound is
(A) $CH_3CH_2CH_2CH_2OH$
(B) $CH_3CH(OH)CH_2CH_3$
(C) $(CH_3)_3COH$
(D) $CH_3CH_2 - O - CH_2CH_3$

118. Ethylene glycol reacts with excess of PCl_5 to give
(A) 1, 1-dichloroethane
(B) 1, 2-dicholoroethane
(C) 1, 1, 1-trichloroethane
(D) 1, 1, 2, 2-tetrachloroethane

119. Which of the following will not react with *NaOH*
(A) 
(B) C_2H_5OH
(C) CH_3CONH_2 (D) $CH(CN)_3$

120. The boiling point of methanol is greater than that of methyl thiol because
(A) There is intramolecular hydrogen bonding in methanol and intermolecular hydrogen bonding in methyl thiol
(B) There is intermolecular hydrogen bonding in methanol and no hydrogen bonding in methyl thiol
(C) There is no hydrogen bonding in methanol and intermolecular hydrogen bonding in methyl thiol
(D) There is intramolecular hydrogen bonding in methanol and no hydrogen bonding in methyl thiol

121. Which of the following is used as catalyst for preparing Grignard reagent
(A) Iron powder
(B) Dry ether
(C) Activated charcoal
(D) MnO_2

122. Ethyl alcohol is heated with conc. H_2SO_4. The product formed is
(A) $CH_3 - \overset{O}{\overset{\|}{C}} - OC_2H_5$ (B) C_2H_6
(C) C_2H_4 (D) C_2H_2

123. Dehydration of 2-butanol yield
(A) 1-butene (B) 2-butene
(C) 2-butyne (D) Both (A) and (B)

124. Fats, on alkaline hydrolysis, gives
(A) Oils (B) Soaps
(C) Detergents (D) Glycol + acid

125. When vapours of an alcohol are passed over hot reduced copper, alcohol is converted into alkene quickly, the alcohol is
(A) Primary (B) Secondary
(C) Tertiary (D) None of these

126. The adduct of the compound '*A*' obtained by the reaction with excess of isopropyl magnesium iodide, upon hydrolysis gives a tertiary alcohol. The compound '*A*' is
(A) An ester
(B) A secondary alcohol
(C) A primary alcohol
(D) An aldehyde

127. If there be a compound of the formula $CH_3C(OH)_3$ which one of the following compounds would be obtained from it without reaction with any reagent
(A) CH_3OH (B) C_2H_5OH
(C) CH_3COOH (D) *HCHO*

128. Which of the following can work as a dehydrating agent for alcohols
(A) H_2SO_4 (B) Al_2O_3
(C) H_3PO_4 (D) All of these

129. What is formed when glycerol reacts with *HI*

(A) $CH_2OH-CHI-CH_2OH$ (B) $CH_2=CH-CH_2I$

(C) $CH_3-CH_2-CH_3$ (D) $CH_2OH-C(=O)-CH_3$

130. The dehydration of 2-methyl butanol with conc. H_2SO_4 gives

(A) 2-methyl butene as major product

(B) Pentene

(C) 2-methyl but-2-ene as major product

(D) 2-methyl pent-2-ene

131. The best method to prepare cyclohexene from cyclohexanol is by using

(A) Conc. $HCl + ZnCl_2$

(B) Conc. H_3PO_4

(C) *HBr*

(D) Conc. *HCl*

132. Which of the following compound is most acidic

(A) CH_4 (B) C_2H_6

(C) $CH \equiv CH$ (D) C_2H_5OH

133. C_2H_5OH can be differentiated from CH_3OH by

(A) Reaction with *HCl*

(B) Reaction with NH_3

(C) By iodoform test

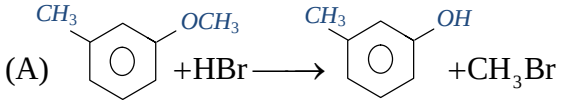
(D) By solubility in water

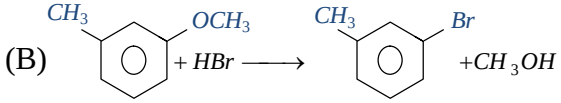
134. A compound does not react with 2.4 di-nitrophenyl hydrazine and *Na* , compound is

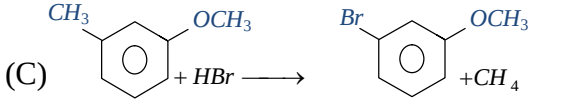
(A) Acetone (B) Acetaldehyde

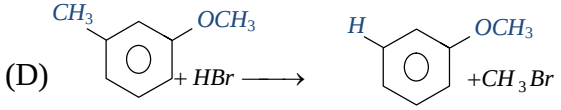
(C) CH_3OH (D) $CH_2 = CHOCH_3$

135. Which of the following reaction is correctly represented

(A) 

(B) 

(C) 

(D) 

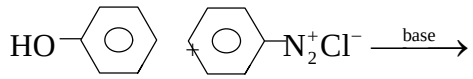
136. Tertiary butyl alcohol gives tertiary butyl chloride on treatment with

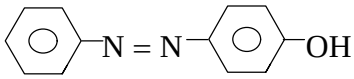
(A) Conc. HCl /anhydrous $ZnCl_2$

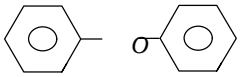
(B) KCN

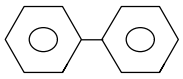
(C) NaOCl

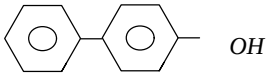
(D) Cl_2

137. 

(A) 

(B) 

(C) 

(D) 

138. In which of the following reactions carbon carbon bond formation takes place

(A) Cannizzaro (B) Reimer-Tiemann

(C) HVZ reaction (D) Schmidt reaction

139. Reaction of phenol with chloroform/sodium hydroxide to give o-hydroxy benzaldehyde involves the formation of

(A) Dichloro carbene

(B) Trichloro carbene

(C) Chlorine atoms

(D) Chlorine molecules

140. Which is not correct
(A) Phenol is more acidic than acetic acid
(B) Ethanol is less acidic than phenol
(C) Ethanol has lower boiling point than ethane
(D) Ethyne is a non-linear molecule

USES OF ALCOHOL, PHENOL AND ETHERS

141. 4-chloro-3, 5-dimethyl phenol is called
(A) Chloramphenicol
(B) Paracetamol
(C) Barbital
(D) Dettol

142. Alcoholic fermentation is brought about by the action of
(A) CO_2 (B) O_2
(C) Invertase (D) Yeast

143. Rectified spirit is a mixture of
(A) 95% ethyl alcohol + 5% water
(B) 94% ethyl alcohol + 4.53% water
(C) 94.4% ethyl alcohol + 5.43 % water
(D) 95.57% ethyl alcohol + 4.43% water

144. Methyl alcohol is toxic. The reason assigned is
(A) It stops respiratory track
(B) It reacts with nitrogen and forms CN^- in the lungs
(C) It increases CO_2 content in the blood
(D) It is a reduction product of formaldehyde

145. Glycerol is used
(A) As a sweetening agent
(B) In the manufacture of good quality soap
(C) In the manufacture of nitro glycerine
(D) In all of these

146. Glycerol is not used in which of following cases
(A) Explosive making
(B) Shaving soap making
(C) As an antifreeze for water
(D) As an antiseptic agent

147. Liquor poisoning is due to
(A) Presence of bad compound in liquor
(B) Presence of methyl alcohol
(C) Presence of ethyl alcohol
(D) Presence of carbonic acid

148. In order to make alcohol undrinkable pyridine and methanol are added to it. The resulting alcohol is called
(A) Power alcohol (B) Proof spirit
(C) Denatured spirit (D) Poison alcohol

149. Denatured spirit is mainly used as a
(A) Good fuel
(B) Drug
(C) Solvent in preparing varnishes
(D) Material in the preparation of oil

150. Main constituent of dynamite is
(A) Nitrobenzene (B) Nitroglycerine
(C) Picric acid (D) TNT