



CHEMISTRY

BOOKS - MBD

CARBON AND ITS COMPOUNDS

Example

1. What would be the electron-dot structure of potassium oxide which has the formula K_2O ?



Watch Video Solution

2. What would be the electron-dot structure of a molecule of sulphur which is made up of eight atoms of sulphur? (HINT. The eight atoms of sulphur are joined together in the form of ring.)



Watch Video Solution

3. How many structural isomers can you draw for pentane?



[Watch Video Solution](#)

4. What are the two properties of carbon which lead to the huge number of carbon compounds we see around us?



[Watch Video Solution](#)

5. What will be the formula and electron dot structure of cyclopentane?



[Watch Video Solution](#)

6. Draw the structures for following compounds: ethanoic acid



[Watch Video Solution](#)

7. Draw the structures for following compounds: Bromopentane



[Watch Video Solution](#)

8. Draw the structures for following compounds: Butanone



[Watch Video Solution](#)

9. Draw the structures for following compounds: Hexanal



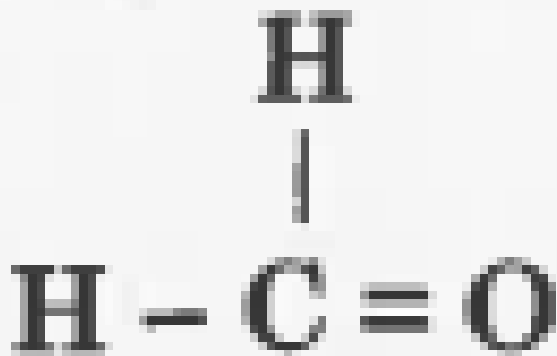
[Watch Video Solution](#)

10. How would you name the following compounds?



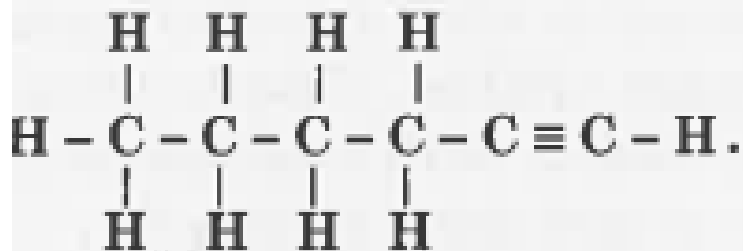
Watch Video Solution

11. How would you name the following compounds?



Watch Video Solution

12. How would you name the following compounds?



 [Watch Video Solution](#)

13. Why is the conversion of ethanol to ethanoic acid an oxidation reaction?

 [Watch Video Solution](#)

14. A mixture of oxygen and ethyne is burnt for welding. can you tell why a mixture of ethyne and air is not used?



Watch Video Solution

15. How would you distinguish experimentally between an alcohol and a carboxylic acid?



Watch Video Solution

16. What are oxidising agents?



Watch Video Solution

17. Would you be able to check if water is hard using a detergent?



Watch Video Solution

18. People use variety of methods to wash clothes usually after adding the soap. they

beat the clothes on a stone or beat it with a paddle, scrub with a brush or the mixture is agitated in a washing machine. why agitation is necessary to get clean clothes clothes?



[Watch Video Solution](#)

19. Ethane, with the molecular formula $C_2 H_6$ has:

A. 6 covalent bonds

B. 7 covalent bonds

C. 8 covalent bonds

D. 9 covalent bonds

Answer:



Watch Video Solution

20. Butanone is a four- carbon compound with the functional group:

A. carboxylic acid

B. aldehyde

C. ketone

D. alcohol

Answer:



Watch Video Solution

21. While cooking, if the bottom of the vessel is getting blackened on the outside, it means that:

A. the food is not cooked completely

B. the fuel is not burning completely

C. the fuel is wet

D. the fuel is burning completely

Answer:



Watch Video Solution

22. Explain the nature of the covalent bond

using the bond formation in CH_3Cl



Watch Video Solution

23. Draw the electron dot structures for:
ethanoic acid.



Watch Video Solution

24. Draw the electron dot structures for: H_2S



Watch Video Solution

25. Draw the electron dot structures for:
propanone



[Watch Video Solution](#)

26. Draw the electron dot structures for: F_2



[Watch Video Solution](#)

27. What is an homologous series: explain with an example.



[Watch Video Solution](#)

28. How can ethanol and ethanoic acid be differentiated on the basis of their physical and chemical properties?



Watch Video Solution

29. Why does micelle formation take place when soap is added to water? will a micelle be formed in other solvents such as ethanol also?



Watch Video Solution

30. Why are carbon and its compounds used as fuels for most application?



Watch Video Solution

31. Explain the formation of scum when hard water is treated with soap.



Watch Video Solution

32. What change will you observe if you test soap with litmus paper?



Watch Video Solution

33. What is hydrogenation? what is its industrial application?



Watch Video Solution

34. Which of the following hydrocarbons undergo addition reaction : C_2H_6 , C_3H_8 , C_3H_6 , C_2H_2 and CH_4 .



Watch Video Solution

35. Give a test that can be used to differentiate between butter and cooking oil.



Watch Video Solution

36. Explain the mechanism of the cleansing action of soaps



Watch Video Solution

37. What is allotropy? Name the allotropes of carbon. are they chemically same? compare their physical properties



Watch Video Solution

38. What is covalent bond?



Watch Video Solution

39. Why does carbon form largest number of compounds?



Watch Video Solution

40. Why are some compound called saturated and other unsaturated compounds?



Watch Video Solution

41. what is substitution reaction?



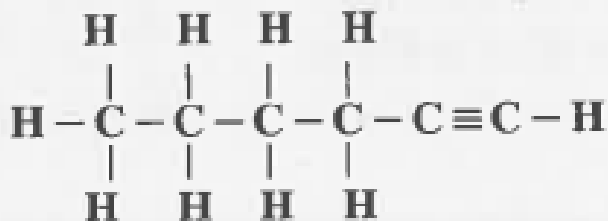
Watch Video Solution

42. Write the names of the compounds



Watch Video Solution

43. Write the names of the compounds



Watch Video Solution

44. Draw structure of pentan-2-one



Watch Video Solution

45. Write down the chemical properties of carbon compounds



Watch Video Solution

46. What is an alcohol? give two examples



Watch Video Solution

47. How butane is prepared from but-2-ene?



Watch Video Solution

48. what is vinegar?



Watch Video Solution

49. Give important properties of ethanoic acid (acetic acid) also give its uses



Watch Video Solution

50. Define the following terms: esterification



[Watch Video Solution](#)

51. Define the following terms: saponification



[Watch Video Solution](#)

52. Define the following terms:
decarboxylation



[Watch Video Solution](#)

53. Define the following terms: polymerization



Watch Video Solution

54. Describe a method for the preparation of soap.



Watch Video Solution

55. What do you understand by isomers?
explain it with an example



[Watch Video Solution](#)

56. Write down the isomers of butane.



[Watch Video Solution](#)

57. Explain why carbon forms mostly covalent compounds ?



[Watch Video Solution](#)

58. In order to form large amount of carbon compounds which major elements are used other than hydrogen and oxygen?



Watch Video Solution

59. Carbon is a unique element', why?



Watch Video Solution

60. Explain the structure of diamond and write why is it so hard?



Watch Video Solution

61. What are the uses of diamond?



Watch Video Solution

62. Write the general formula for alkene and give example.



[Watch Video Solution](#)

63. Write the general formula for alkyne and give example.



[Watch Video Solution](#)

64. Write the structure of graphite why is it so soft?



[Watch Video Solution](#)

65. Why are diamonds used in jewellery? give reasons



Watch Video Solution

66. Why is graphite a good conductor of electricity?



Watch Video Solution

67. What are the uses of graphite?





[Watch Video Solution](#)

68. Draw structure of pent-3-ene-1-oic acid?



[Watch Video Solution](#)

69. Draw the electron dot structures of methane, ethane, ethene, butane



[Watch Video Solution](#)

70. Write molecular formula of butane?



[Watch Video Solution](#)

71. Draw the structure of propanal



[Watch Video Solution](#)

72. Write two tests of alcohol



[Watch Video Solution](#)

73. What do you understand by homologous series? explain with an example



Watch Video Solution

74. What are alkanes?



Watch Video Solution

75. What happens when hydrogen gas is passes through vegetable oils in the presence

of nickel?



Watch Video Solution

76. Write chemical properties of ethanoic acid



Watch Video Solution

77. Which type of oils should be used for cooking ? why?



Watch Video Solution

78. Write combustion of ethanol.



Watch Video Solution

79. Why is consumption of methanol (CH_3OH) very fatal?



Watch Video Solution

80. Write the IUPAC names ethyl alcohol and acetic acid. write the name of products formed

when ethyl alcohol and acetic acid react in the presence of concentrated sulphuric acid.

Write its chemical reaction



[Watch Video Solution](#)

81. How will you prepare:

ethene from ethyl alcohol

acetic acid from ethyl alcohol? give reaction



[Watch Video Solution](#)

82. How alcohol is reacted with conc sulphuric acid?



Watch Video Solution

83. Why is cleansing effect of soap not effective in hard water?



Watch Video Solution

84. Distinguish between soaps and detergents



[Watch Video Solution](#)

85. Write the formation of ethanol by formation process



[Watch Video Solution](#)

86. Write the name of the reaction in which ethanoic acid and ethanol react together to form product write the common name of the product

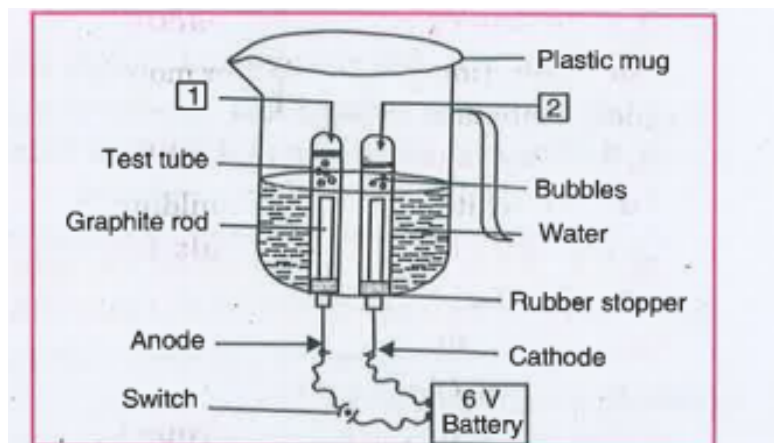




Watch Video Solution

87. What is shown in the figure given a head?

Also indicate 1 and 2 in the figure



Watch Video Solution

88. Show the bonding of hydrogen, oxygen and nitrogen atoms with their own atoms ?



Watch Video Solution

89. Write molecular formula of propane



Watch Video Solution

90. write molecular formula of butanoic acid?



Watch Video Solution

91. Write structure for 2-methylbutanal?



Watch Video Solution

92. write structure of methoxyethane?



Watch Video Solution

93. On which element do all living processes depend?



[Watch Video Solution](#)

94. What percentage of carbon is present in minerals found under the crust of earth?



[Watch Video Solution](#)

95. What percentage of CO_2 is present in atmosphere?



[Watch Video Solution](#)

96. How many electrons are presents in the outer shell of carbon?



Watch Video Solution

97. Why does carbon need four electrons to gain or lose?



Watch Video Solution

98. How does carbon gain four electrons?





[Watch Video Solution](#)

99. How does carbon lose four electrons?



[Watch Video Solution](#)

100. Which type of bond is shared by a pair of two hydrogen atoms?



[Watch Video Solution](#)

101. How is single bond between two atoms expressed?



Watch Video Solution

102. What is the atomic number of nitrogen?



Watch Video Solution

103. How many electrons are given by each atom of nitrogen to form nitrogen gas?



[Watch Video Solution](#)

104. Which gas is used as a fuel the most?



[Watch Video Solution](#)

105. write the structure of natural gas?



[Watch Video Solution](#)

106. Write the full form C.N.G.



[Watch Video Solution](#)

107. How is the structure of diamond?



[Watch Video Solution](#)

108. How is the structure of graphite?



[Watch Video Solution](#)

109. Which of these two is a good conductor of electricity-diamond or graphite?



Watch Video Solution

110. Which is the hardest substance?



Watch Video Solution

111. How do we feel when we touch graphite?



Watch Video Solution

112. Which element has the ability to form a large number of compounds



Watch Video Solution

113. Give names of two elements which are placed in the group of carbon and have the same valency?



Watch Video Solution

114. What is the simplest form of hydrocarbon?



Watch Video Solution

115. By which types of bonds can carbon atoms join other carbon atom



Watch Video Solution

116. Write the names of five elements which can make bond with carbon to form new compounds



Watch Video Solution

117. Write the formula of ethane?



Watch Video Solution

118. Write the structural formula of propane?



Watch Video Solution

119. Give the next higher homologues of: C_3H_5

Br and C_6H_{10} ,



Watch Video Solution

120. Give the structure of ethanol



Watch Video Solution

121. Name the functional group in propaone.



Watch Video Solution

122. Give the structure of simplest ketone



Watch Video Solution

123. Give the name and structure of four carbon atoms in aldehyde?



Watch Video Solution

124. Name the products obtained when ethanol undergoes complete combustion?



Watch Video Solution

125. Give the name and structure of functional group present in acetic acid (CH_3COOH).



Watch Video Solution

126. Which of the following compounds belong to same homo-logous series?

$C_2H_6O_2$, C_2H_2 , C_2H_6 , CH_4O_2 .



[Watch Video Solution](#)

127. Give the structural formula of an ester



[Watch Video Solution](#)

128. Give the names and structural formulas of acid and alcohol from which ethyl acetate is obtained.



Watch Video Solution

129. Give the electron-dot structure of methane.?



Watch Video Solution

130. Define covalent bond?



Watch Video Solution

131. Explain why covalent compounds do not conduct electric current?



Watch Video Solution

132. Name the bond formed between metal atom and non-metal atoms?



[Watch Video Solution](#)

133. What are allotropes?



[Watch Video Solution](#)

134. Define catenation?



[Watch Video Solution](#)

135. Give two oxidising agents?



[Watch Video Solution](#)

136. Give the electron dot structure of ethane?



[Watch Video Solution](#)

137. Give the structural formula of propane?



[Watch Video Solution](#)

138. Give the electron dot structure of ethene.



[Watch Video Solution](#)

139. Define functional group?



[Watch Video Solution](#)

140. If two organic compounds have some functional group, predict they have similar physical or chemical properties?



[Watch Video Solution](#)

141. Give the general formula of alkanes, and alkynes?



Watch Video Solution

142. Give the isomers of structural formula C_4H_{10} (butane)



Watch Video Solution

143. Give the first four members of homologous series of alcohols?



Watch Video Solution

144. Define a catalyst?



Watch Video Solution

145. What happens when a piece of sodium metal is added ethanol? Give chemical

equation also?



[Watch Video Solution](#)

146. What happens when ethanol is heated with conc. H_2SO_4 at 443k?



[Watch Video Solution](#)

147. What is denatured alcohol?



[Watch Video Solution](#)

148. Give three uses of ethanoic acid?



Watch Video Solution

149. What is the atomic number of hydrogen?



Watch Video Solution

150. Give the electronic configuration of carbon atom?



Watch Video Solution

151. Give name of four carbon compounds?



Watch Video Solution

152. Give two allotropic forms of carbon



Watch Video Solution

153. Give the name of simple ketone?



Watch Video Solution

154. Give the name of first member of homologous series of alkynes



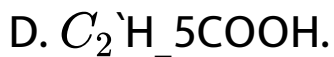
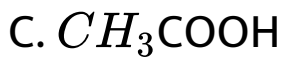
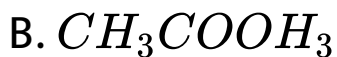
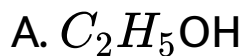
Watch Video Solution

155. Give the name and formula of acid present in vinegar?



Watch Video Solution

156. Ethanoic acid has the formula:



Answer:



Watch Video Solution

157. Carboxylic acids contain functional group:

A. $-CHO$

B. $-CH_2OH$

C. $-COOH$

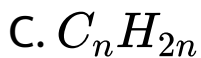
D. $-OH$

Answer:



Watch Video Solution

158. The general formula of alkyne is:



Answer:



Watch Video Solution

159. Propanone has the functional group:

A. $-OH$

B. $-CHO$

C. $C=O$

D. $-COOH$

Answer:



Watch Video Solution

160. Vinegar contain acetic acid:

A. 5 – 8 %

B. 15 – 20 %

C. 21 – 29 %

D. 30 – 40 %

Answer:



Watch Video Solution

161. The reaction of acetic acid with ethyl alcohol is called

A. Polymerisation

B. saponification

C. hydrogenation

D. Esterification

Answer:



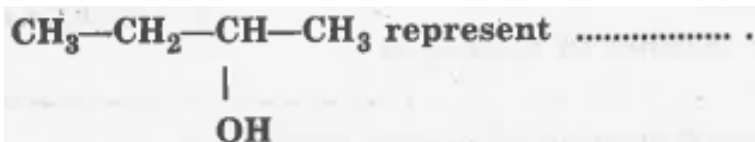
Watch Video Solution

162. Fill in the blanks: The functional group present in ethyl alcohol is ____



Watch Video Solution

163. Fill in the blanks:



Watch Video Solution

164. Fill in the blanks: Two atoms of the same element combine to form a molecule. The bond between them is known as... bond



Watch Video Solution

165. Fill in the blanks: In the formation of oxygen molecule, the oxygen atoms share _____ Electrons each



Watch Video Solution

166. Fill in the blanks: The number of single covalent bond in the molecule of ammonia is



Watch Video Solution