



CHEMISTRY

BOOKS - BEYOND PUBLICATION

CARBON AND ITS COMPOUNDS

Example

1. Name the simplest hydrocarbon.

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2. Write the simplest hydrocarbon.

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3. What are the general molecular formulae of alkanes, alkenes and alkynes?

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4. What are the general molecular formulae of alkanes, alkenes and alkynes?

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5. Name the carboxylic acid used as preservation.

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6. Which acid is used as a preservative ?

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7. Name the product other than water formed on burning of ethanol in air.

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8. Which gas is produced along with water, when ethanol is burned in air ?

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

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10. What is the reason for not using the mixture of ethyne and air for welding ?

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11. Name the simplest ketone and write its molecular formula.

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12. Write the simplest ketone with its molecular formula.

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13. What do we call the self-linking property of carbon?

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14. Name the compound formed by heating ethanol at 443K with excess of conc. H_2SO_4 .

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15. Name the compound formed by heating ethanol at 443K with excess of conc. H_2SO_4 .

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16. What is the compound formed when ethyl alcohol (Ethanol) is dehydrated ? Write the chemical equation of the reaction.

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17. Give an example for esterification reaction.

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18. Write a short note on esterification reaction.

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19. Name the product obtained when ethanol is oxidized by either chromic anhydride Or alkaline potassium permanganate.

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20. If the ethanol is oxidized by either chromic anhydride or alkaline potassium permanganate, what is the product obtained from them ?

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21. Write the chemical equation representing the reacting of preparation of ethanol from ethane.

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22. Write the chemical equation representing the reacting of preparation of ethanol from ethane.

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23. What are homologous series of carbon compounds? Mention any two characteristics of homologous series.

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24. What are homologous series of carbon compounds? Mention any two characteristics of homologous series.

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25. Give the names of functional groups.

- CHO

- C = O

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26. Write the names of the given functional groups

- CHO

- C = O.



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27. Why does carbon form compounds mainly by covalent bonding?



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28. Explain the sodium ethoxide is obtained from ethanol. Give chemical equations.



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29. Explain the cleansing action of soaps.



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30. Distinguish between esterification and saponification reactions of organic compounds.

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31. Write the differences between esterification and saponification reactions of organic compounds.

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32. Explain the structure of graphite in terms of bonding and give one property based on this structure.

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33. Name the acid present in vinegar.

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 [Watch Video Solution](#)

34. What happens when a small piece of sodium is dropped into ethanol?

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35. What happens when a small piece of sodium is dropped into ethanol?

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36. Draw the electronic dot structure of ethane molecule(C_2H_6).

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37. How do you appreciate the role of carbon in everyday life ?

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38. Give the IUPAC name of the following compounds. If more than one compound is possible name atleast two of them

An aldehyde derived from ethane

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39. Give the IUPAC name of the following compounds. If more than one compound is possible name atleast two of them

A ketone derived from butane.

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40. Give the IUPAC name of the following compounds. If more than one compound is possible name atleast two of them

A chloride derived from propane.

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41. Give the IUPAC name of the following compounds. If more than one compound is possible name atleast two of them

An alcohol derived from pentane.

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42. Explain with the help of a chemical equation, how an addition reaction is used in vegetable ghee industry.

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43. How is hydrogenation used in vegetable ghee industry? Explain with chemical equation.

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44. What are the general molecular formulae of alkanes, alkenes and alkynes?

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45. Write the IUPAC names of three cresols

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46. Write the IUPAC name of the next higher homologue of $CH_2OHCH_2CH_3$

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47. Allotropy is a property shown by which class of substances: elements, compounds or mixtures? Explain allotropy with suitable examples.

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48. Explain the chemical equation how ethanoic acid is obtained from ethanal.

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49. Two carbon compounds A and B have molecular formulae C_3H_8 and C_3H_6 respectively. Which one of the two is most likely to undergo addition reactions? Justify your answer.

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50. How do you condemn the use of alcohol as a social practice?

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51. In which type of development will you take to oppose the use of alcohol as a social practise ?

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52. An organic compound with molecular formula $C_2H_4O_2$ produces brisk effervescence on addition of sodium carbonate / bicarbonate. Answer the following : Identify the organic compound.

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53. An organic compound with molecular formula $C_2H_4O_2$ produces brisk effervescence on addition of sodium carbonate / bicarbonate. Answer the following : Write the chemical equation for the above reaction.

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54. An organic compound with molecular formula $C_2H_4O_2$ produces brisk effervescence on addition of sodium carbonate / bicarbonate. Answer the following : Name the gas evolved.

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55. An organic compound with molecular formula $C_2H_4O_2$ produces brisk effervescence on addition of sodium carbonate / bicarbonate. Answer the following : How will you test the gas evolved?

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56. An organic compound with molecular formula $C_2H_4O_2$ produces brisk effervescence on addition of sodium carbonate / bicarbonate. Answer the following : List two important uses of the above compound.

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57. An organic compound with molecular formula $C_2H_4O_2$ produces brisk effervescence on addition of sodium carbonate / bicarbonate. Answer the following : Identify the organic compound.

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58. 1ml of glacial acetic acid and. 1ml of ethanol are mixed together in a test tube. Few drops of concentrated sulphuric acid is added in the mixture are warmed in a water bath for 5 min. Answer the following :
Name the resultant compound formed.

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59. 1 ml glacial acetic acid and 1 ml of ethanol are mixed together in a test tube. Few drops of concentrated sulphuric acid is added to the mixture and warmed in a water bath for 5 min. Represent the above change by a chemical equation.

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60. 1 ml of glacial acetic acid and 1 ml of ethanol are mixed together in a test tube. Few drops of concentrated sulphuric acid is added to the mixture and warmed in a water bath for 5min.answer the question:What name is given to such a reaction?

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61. 1 ml of glacial acetic acid and 1 ml of ethanol are mixed together in a test tube. Few drops of concentrated sulphuric acid is added to the mixture and warmed in a water bath for 5min.answer the question:What are the special characteristics of the compound formed?

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62. Suggest a test to find the hardness of water and explain the procedure.

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63. How do test a given water sample is soft or hard ?

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64. Suggest a chemical test to distinguish between ethanol and ethanoic acid and explain procedure.

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65. On which justification we can distinguish between ethanol and ethanoic acid explain.

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66. An organic compound 'X' with a molecular formula C_2H_6O undergoes oxidation with alkaline $KMnO_4$ and forms the compound 'Y', that has

molecular formula $C_2H_4O_2$. Identify "X" and "Y".

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67. An organic compound 'X' with a molecular formula C_2H_6O undergoes oxidation with alkaline $KMnO_4$ and forms the compound 'Y', that has molecular formula $C_2H_4O_2$: Write your observation regarding the product when compound 'X' is made to react with compound "Y" Which is used as a preservative for pickles.

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68. Prepare models of methane, ethane, ethene and ethyne molecules using clay balls and matchsticks.

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69. Collect information on the process of artificial ripening of fruits in fruit markets and discuss whether it is useful or harmful.

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70. Collect information on the process of artificial ripening of fruits in fruit markets and discuss whether it is useful or harmful.

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71. Can carbon get helium configuration by losing four electrons from the outer shell?

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72. How do carbon atoms form bonds in so many ways

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73. Explain the four unpaired electrons in carbon atom through excited state.

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74. Where this energy to excited electron comes from?

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75. In methane(CH_4) molecule all four carbon-hydrogen bonds are identical and bond angle $H\hat{C}H$ is 109.28° . how can we explain this?

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76. How these energetically unequal valence electrons form four equivalent covalent bonds in methane molecule?

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77. Define Hybridization.

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78. What are bond angles of HCH in CH_4 , C_2H_4 and C_2H_2 molecules?

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79. How do you understand the marking(writings) of a pencil on a paper?

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80. Allotting completely one special branch in chemistry to compounds of only one element. Is it justified when there are so many elements and their compounds but not with any special branches?

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81. What are hydrocarbons?

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82. Do all the organic compounds have equal number of 'C' and 'H' atoms?

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83. Can carbon form bonds with the atoms of other elements?

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84. In the following two structures the relationship is....

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85. How about their structures ? Are they same ?

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86. How many carbon and hydrogen atoms are there in (a) ethane and (b) propane ?

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87. Write the condensed molecular formulae for (a) and (b) Do they have same molecular formulae ?

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88. Can we write the structure of a compound if the name of the compound is given ?

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89. Why do sometimes cooking vessels get blackened on a gas or kerosene stove?

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90. Do you know what is a catalyst ?

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91. Do you know how the police detect whether suspected drivers have consumed alcohol or not?

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92. What are esters?

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93. Whenever you buy clothes or ready made garments observe the brand label. What do you notice ?What do you see ?



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94. Do you know what 'soap' is?



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95. What is a true solution?



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96. Do you know what 'soap' is?



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97. Can you see the oil and water layers separately in both the test tubes.

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98. Can you see the oil and water layers separately in both the test tubes.

 [Watch Video Solution](#)

99. Can you see the oil and water layers separately in both the test tubes.

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100. What is the action of soap particles on the greasy cloth?

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101. Write an activity to show esterification.



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102. Write an activity to show soap solution separates oil from water.



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103. Why we are advised not to use animal fats for cooking?



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104. Which oil is recommended for cooking? Why?



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105. Valency of carbon is



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106. The bond angle in methane molecule

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107. Structure of the complex with sp^3 hybridisation

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108. Name the element which is example for triple. Bond.

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109. Which allotropic form of carbon has layered structure ?

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110. Which of the following has a foot-ball like structure?



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111. Nanotubes were discovered by



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112. Name the property in which bonds among its own atoms to give big molecules.



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113. What are the compounds of carbon and hydrogen ?



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114. A spherical aggregate of soap molecules in water is called



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115. Write a note on the allotropy of carbon.



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116. Explain briefly about the structure of 'Diamond'?



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117. Explain briefly about the structure of 'Graphite'?



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118. "Diamond is an extremely bad conductor of electricity." Why?



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119. What is catenation? Give an example.

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120. What is an alkyl group?

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121. What is the bond length in diamond?

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122. What is polymerization? Explain with one example.

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123. Name some functional groups.



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124. What is the bond angle in diamond?



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125. What is the $C - C$ bond length in graphite?



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126. What is the bond angle in graphite ?



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127. Define Isomerism.



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128. What is hydrocarbon?

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129. What are saturated hydrocarbons?

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130. What are alkanes

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131. What are unsaturated hydrocarbons?

 [Watch Video Solution](#)

132. What are alkenes ?



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133. What are alkynes?



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134. What is Homologous series ?



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135. What is organic chemistry ?



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136. What is halogenation ?



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137. Diamond is a bad conductor of heat'.Why ?



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138. What is 'cleavage'?



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139. "Diamond is the hardest natural substance but is brittle". Why ?



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140. Write the importance of "Graph" in finding the refractive index of prism.



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141. What do you mean by a functional group?

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142. What is the density of diamond ?

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143. What is the refractive index (μ) of diamond ?

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144. What is the distance between any two adjacent layers in graphite ?

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145. How many rings are there in buckminster fullerene ?



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146. What is C - C bond length in C_{60} ?



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147. What is pyrolysis? Give one example.



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148. Give example for homologous series.



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149. Mention the natural sources of carbon compounds.



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150. Explain about methanol (or) methyl alcohol.

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151. How do you appreciate the role of diamond in space probes ?

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152. How do you appreciate the role of diamond in surgery ?

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153. How do you appreciate the role of acetic acid as a preservative?

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154. How do you detect leakage in the cylinder ?



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155. What is the position of carbon in periodic table ?



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156. What is hybridisation?



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157. Draw the diagram showing sp^3 - s overlap in Methane.



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158. Define allotropy.



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159. What are the amorphous forms of carbon allotropes ?

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160. Name some crystalline forms of allotropes of carbon.

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161. What do you call the property of carbon to form long chains ?

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162. Why carbon is versatile element in nature?

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163. What are hydrocarbons?



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164. Give one example for straight chain compound.



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165. Give an example for branched chain compound.



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166. The formula of a hydrocarbon is $C_{12}H_{24}$ Name the family to which it belongs and also predicts its nature.



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167. What do you mean by a functional group?



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168. What is the difference between two successive homologs?

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169. Write the structure of 3-bromo-2-chloro-5 oxo hexanoic acid.

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170. What is saponification?

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171. What is a micelle? Give an example of micelle formation.

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172. What is a soap ?



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173. Draw the shape of methane molecule



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174. Define Isomerism.



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175. How do you appreciate the role of oxygen in combustion process?



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176. Gasohol is a good motor fuel which reduces up to 30% carbon monoxide emission. Give the composition of Gasohol.

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177. Identify the compounds that contain double bond
 C_5H_8 , C_5H_{10} , C_6H_{12} .

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178. $CH_2 = CH_2 + H_2 \xrightarrow{Ni} CH_3 - CH_3$ is an addition reaction.

$CH \equiv CH + H_2 \xrightarrow{Ni}$? Predict and write the products.

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179. Give example for homologous organs.

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180. What are nanotubes?



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181. Do you know what is a catalyst ?



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182. Why oils are in liquids at room temperature?



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183. Why fats are solids at room temperature ?



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184. Do you know how the police detect whether suspected drivers have consumed alcohol or not?

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185. What is pK_a

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186. Name the gas evolved when acetic acid is react with sodium hydrogen carbonate.

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187. Name the organic acid present in vinegar-write it's chemical formula.

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188. Write the valency of carbon in $CH_3 - CH_3$, $CH_2 = CH_2$ and $HC \cong CH$?

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189. Out of butter and ground nut oil which is unsaturated in nature?

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190. What are hydrophobic and hydrophilic parts in soap?

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191. Name the carboxylic acid used as preservation.

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192. Among objects made of glass and diamond, which one shines more ?

Why ?

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193. Why are vegetable oils healthy us compared to vegetable ghee ?

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194. Why organic compounds present in such a large number ?

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195. Draw the structure of the following compounds. 2-Methyl penten-3-ol

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196. Draw various structure of C_5H_{12}

 [Watch Video Solution](#)

197. Draw various structure of C_6H_{14} .

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198. Explain the occurrence of carbon.

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199. Explain about allotropic forms of carbon.

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200. How do you prepare Ethanol from ethene?



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201. Write the reactions of ethanol with sodium and conc. H_2SO_4 –



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202. Write the reactions of ethanoic acid with metals, metal hydroxide, metal carbonates and metal hydrogen carbonates.



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203. Draw the structure of butanoic acid C_3H_7COOH .



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204. How do you appreciate the role of esters in daily life ?



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205. Why are vegetable oils healthy us compared to vegetable ghee ?

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206. Complete the following reactions: $CH_3 - COOH + NaHCO_3 \rightarrow$

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207. Complete the following reactions: $CH_2 = CH_2 + H_2Ni \xrightarrow{\quad}$

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208. Identify the unsaturated compounds of the following :



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209. Identify the unsaturated compounds of the following :



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

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211. What are the uses of fullerenes?

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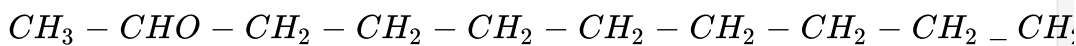
212. What happens when a small piece of sodium is dropped into ethanol?

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213. Why do sometimes cooking vessels get blackened on a gas or kerosene stove?

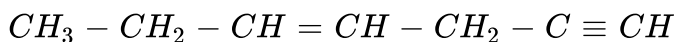
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214. Write the IUPAC names of the following compounds.



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215. Write the IUPAC names of the following compounds:



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216. Write the IUPAC names of the following compounds:





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217. How do you appreciate the role of carbon in everyday life ?



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218. Explain briefly about the structure of 'Diamond'?



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219. Explain briefly about the structure of 'Graphite'?



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220. How do you appreciate the role of ethanol as a fuel?



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221. How do you appreciate the role of oxygen in combustion process?

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222. How ethanol useful in pharmaceutical industry ?

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223. The purest form of carbon is

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224. Why does carbon form compounds mainly by covalent bonding?

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225. Why carbon does not form C^{4+} ?



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226. "Diamond is an extremely bad conductor of electricity." Why?



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227. How synthetic detergents are harmful for environment?



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228. An organic compound X with a molecular formula C_2H_6O undergoes oxidation with in presence of alkaline $KMnO_4$ to form a compound Y. X on heating in presence of con. H_2SO_4 at 443 k gives Z. Which on reaction with Br_2 and decolorizes, it. Identify X, Y and Z write the reactions involved.



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229. What type of reaction takes place between ethane and chlorine?

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230. Define Isomers. Write structural formula of isomers of butane.

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231. Allotropy is a property shown by which class of substances: elements, compounds or mixtures? Explain allotropy with suitable examples.

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232. Two carbon compounds A and B have molecular formulae C_3H_8 and C_3H_6 respectively. Which one of the two is most likely to undergo addition reactions? Justify your answer.

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233. Draw the structure for the following compounds : Propanoic acid

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234. Draw the structure for the following compounds : Chlorobutane

 [Watch Video Solution](#)

235. Draw the structure for the following compounds : Hexanone

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236. Draw the structure for the following compounds : Pentanal

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237. Draw the structure of the methane molecule. Write its bond angle.



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238. Draw the structure of the following compounds. 2-Methyl penten-3-ol



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239. Draw various structure of C_5H_{12}



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240. Draw various structure of C_6H_{14} .



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241. Draw the structure of isomers of butane.



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242. Draw the structure of: propanol

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243. Draw the structures of the following.

Propene

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244. Draw the structures of the following : 2-Chloro Propene.

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245. Draw the structure of ethane and electron dot structure of chlorine.

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246. Draw the structures of the following compounds.

butanol

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247. Draw the structures of the following compounds.

1-hexyne

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248. Draw the electron dot structure of ethanoic acid and ethyne(acetylene)

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249. Write the molecular formula of the first four compounds of the homologous series of Aldehydes.



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250. How many isomers can be drawn for pentane with molecular formula C_5H_{12} ? What are they? Draw their structures and mention their common names.



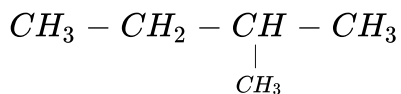
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251. What are the characteristics of homologous series ?



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252. Write the IUPAC names of the following compounds.



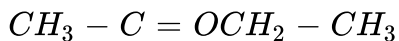
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253. Write the IUPAC names of the following compounds.



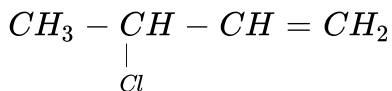
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254. Write the IUPAC names of the following compounds.



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255. Write the IUPAC names of the following compounds.



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256. What is hybridisation?

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257. Draw the electronic dot structure of ethane molecule(C_2H_6).

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258. Diamond and graphite are Allotropes of carbon. Graphite is good conductor but not diamond. This is due to:

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259. Write about the structures of buckminsterfullerene.

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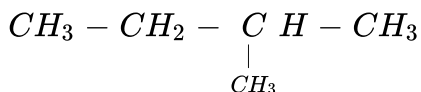
260. What are nanotubes?

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261. Write the names of the organic compounds which have the following structure : $CH_3 - CH_2 - CH_2 - CH_2 - CH_3$

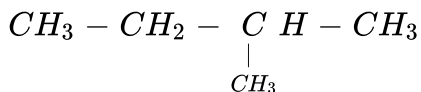
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262. Write the name of the organic compound which have the following structure.



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263. Write the name of the organic compound which have the following structure.

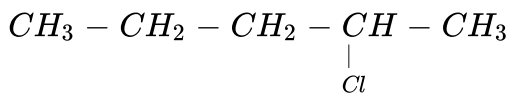


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264. Write the names of the organic compounds which have the following structure ? $CH_3 - CH_2 - \underset{\substack{| \\ Cl}}{CH_2} - CH - CH_3$

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265. Write the name of the organic compound which have the following structure.



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266. Which among the following is a branched chain polymer.

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267. Explain the possibility of bonds formation by a carbon atom with examples.



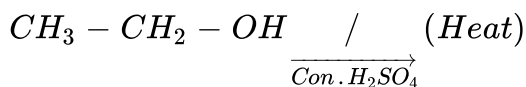
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268. What is the information given by the IUPAC name of an organic compound ?



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269. Complete the following reactions.



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270. Complete the following reactions: $CH_3 - COOH + NaHCO_3 \rightarrow$



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271. Complete the following reactions: $CH_2 = CH_2 + H_2Ni \xrightarrow{\quad}$



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272. What are hydrocarbons?



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273. The radii of curvatures (R) of biconvex lens is same. An object is kept at center of curvature. The refractive index of material is n . Lens is kept in air.

What is focal length ?



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274. The radii of curvatures (R) of biconvex lens is same. An object is kept at center of curvature. The refractive index of material is n . Lens is kept in air.

Find out image distance.



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275. The focal length of an equi-convex lens is greater than the radius of curvature of any of the surfaces. Then, the refractive index of the material of the lens is

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276. An electric circuit is formed with a copper wire as shown in figure. We know that resistance is directly proportional to the length of the conductor. Find out the effective resistance between the points A and C.

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277. In the following cases calculate the magnification values for a concave mirror. Give reason.

When the object is at the focal point of the mirror.

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278. In the following cases calculate the magnification values for a concave mirror. Give reason.

When the object is at the focal point of the mirror.

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279. Kishore wore spectacles. When you saw through his spectacles the size of his eyes seemed bigger than their original size.

Which lens did he use ?

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280. Kishore wore spectacles. When you saw through his spectacles the size of his eyes seemed bigger than their original size.

Explain that defect of vision (with the help of a diagram)

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281. In a classroom four students measured focal length of a given lens experimentally. They got the values as 12.1 cm, 12.2 cm, 12.05 cm, 12.3 cm respectively. They discussed reasons for getting different values. Explain the reasons ?

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282. Assume that an object is kept at a distance of 20 cm in front of a concave mirror. If its focal length is 30 cm then
What is the image distance ?

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283. Assume that an object is kept at a distance of 20 cm in front of a concave mirror. If its focal length is 30 cm then
What is the magnification of mirror in this case ?

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284. There is an object in front of convex mirror at a distance of 5 cm. If its focal length is 10 cm then

What is the image distance ?



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285. Focal length of a concave mirror is f . The distance from its focal point to the object is P . Find the ratio of heights of image.



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286. Consider 4 kg of water at $100^{\circ}C$. How much amount of heat is required to convert it into steam ?



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287. The image formed by a concave mirror



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288. Answer the following questions if the magnification of concave mirror = 1.

What are the properties of an image ?



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289. The radius of curvature of a plano-convex lens is R . The refractive index of material of prism is n then find the focal length of the lens ?



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290. Assume that an object is kept at a distance of 20 cm in front of a concave mirror. If its focal length is 30 cm then

What is the image distance ?



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291. Assume that an object is kept at a distance of 20 cm in front of a concave mirror. If its focal length is 30 cm then

What is the magnification of mirror in this case ?



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292. Explain the reason for using lead in fuse wires.



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293. In which case incident angle and refracting angle are same ?



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294. The focal length of convex mirror is 16 cm. What is its radius of curvature ?



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295. The focal length of concave mirror is f . Is there any change in focal length when it is completely immersed in water ? If not why ?



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296. The minimum distance of an object from concave mirror for which the mirror forms real image is.....(Let ' f ' be the focal length of concave mirror)

- A. f
- B. $2f$
- C. $4f$
- D. zero

Answer:



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297. A resistor is connected to a battery by which the temperature of wire increased. Which value does not change ?

- A. Drift speed of electrons
- B. Electrical resistivity
- C. Resistance
- D. Density of electrons

Answer:

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298. The resistance of A and B are R_A and R_B and $R_A < R_B$ the electrical resistivities are S_A and S_B then the correct explanation is

- A. $S_A > S_B$
- B. $S_A = S_B$
- C. $S_A < S_B$

D. We cannot derive any relation between S_A and S_B by given data

Answer:



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299. Different gases are situated at same temperature. Which value remains same for all gases ?

- A. 1. Mass
- B. 2. Velocity
- C. 3. Linear moments
- D. 4. Average kinetic energy

Answer:



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300. A positively charge body is projected in the east direction. Now charged particle deflected in North direction. Then the direction of magnetic field is

- A. West
- B. South
- C. Vertically upwards
- D. Vertically downwards

Answer:



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301. A bulb is designed with potential P_0 and voltage V_0 . Now the bulb is connected to a voltage V then the bulb's electrical power $P =$

A. $\frac{V_0}{V} P_0$

B. $\frac{V}{V_0} P_0$

C. $\left(\frac{V}{V_0}\right)^2 P_0$

D. $\left(\frac{V_0}{V}\right)^2 P_0$

Answer:

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302. Take a long cylindrical copper tube. Hold it so that it is perpendicular to the horizontal. A stone and a bar magnet are left freely, so that bar magnet passes through the tube and stone outside the tube. Which one reaches the earth first. Guess why it is so ? Give proper reasons.

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303. Kalyan got up at midnight 12'O clock and he switch on the tube light in his room. Then in that light he felt difficult to open his eyes. Guess the reasons for it.

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304. A spring is suspended as shown in diagram. A battery and switch are connected between the ends of the spring. What happens when the switch is closed ? Guess the answer .

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305. Observe the conversation of Siri and Bhavya. Siri: Bhavya, I am not able to draw the ray diagrams of mirror. Bhavya : Siri, do you know the laws of reflection . Do you know the Fermat's principle. Basing on above conversation, Bhavya taught how to draw ray diagrams to Siri, asking her some questions which she known. Do you know what Bhavya asked Siri. Write atleast 4 questions.

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306. An object is placed at a distance of 10 cm before a convex lens of focal length 20 cm. find the position and nature of the image?



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307. Varun see his image in a concave mirror. When he moves away he was unable to see his image. Distinguish between those two images.



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308. Nikith and Vamsi are friends. They are walking on tar road at the afternoon time. Vamsi has seen that images of water on roads. He has shown it to Nikith, Vamsi asked Nikith to guess the reasons for the shades of water. If you were asked the same what will you guess ?



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309. Lokesh told to his teacher that he is not able to recognize the difference between evaporation and boiling. Then the teacher asked some questions and made him to understand the difference between them. What are the questions asked by teacher to Lokesh ?



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310. We often see the boards "High voltage is dangerous". But we are not seeing "High electricity is dangerous". Guess it and write the answer.



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311. Assertion (A) : When light refracts, it changes the direction (when angle of incidence is not 0°) Reason (R) : Light, when it changes its medium, changes its speed.

- A. A is wrong, R is correct
- B. A, R are correct and R is the correct explanation for A
- C. A, R are correct, but R is not the correct explanation for A
- D. A and R both are wrong

Answer:



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312. A wire of length 10 meter is connected between the terminals of a battery of e.m.f. 8 volts. Later that wire is cut into 5 equal parts. These are connected parallel and the end terminals are connected to battery. In the second case battery give more electric power which is the incorrect option of the following ?

- A. The current flowing in second case is 25 times more than that of first case
- B. The electric power utilized in second case is 10 times less than first case.
- C. The electric utilized in second case is 25 times more than first case
- D. The resistance in second case is $1/25$ th of that of first case.

Answer:



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313. Harsha told that Magnetic field lines are closed loops. But Krishna is not agreeing with Harsha. How Harsha will convince Krishna with an experiment ? What are the apparatus required ? How the experiment will be conducted ?

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314. Aravind requires a concave mirror of focal length 10 cm for an experiment of light. He is having lot of concave mirrors in his lab without its focal length values. To determine the focal length of mirror in his laboratory, what are the apparatus required ? How focal length can be determined ?

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315. A company wants to make transparent part of a helmet whose refractive index is equal to refractive index of air. For that purpose they want to determine the refractive index of different materials of which

shape the material has to be selected. How the refractive index can be determined experimentally ?

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316. In the experiment of melting point of ice, what main point you have noticed while ice completely melts into water ?

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317. Explain the procedure of making solenoid on a wooden plank using copper wire to know the magnetic field created by solenoid.

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318. In the experiment of observing a stone kept at the bottom of a water beaker through a convex lens which is also kept in water. What are the conclusions you have arrived ?

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319. Explain an experiment to show that the rays from the source at distance will be parallel.

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320. Name the apparatus required in the experimental demonstration of verifying the relation between the resistance of a conductor and its length.

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321. How will you arrange a plane mirror inside water tray to see the different colour in sunlight in your class-room ?

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322. What is the need of using semi-circular glass disc in the experimental demonstration of deriving the relation between the angle of incidence (i) and angle of refraction ?



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323. A horse shoe magnets two poles are kept on both sides to a current carrying conductor. In this experiment the direction of force is observed as

- A. Current wire deflects towards the North pole of magnet
- B. Current wire deflects towards the South pole of magnet
- C. No deflection in the current wire
- D. The wire deflects according to right hand thumb's rule

Answer:



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324. The properties of image when a real object is kept in between focus and centre of curvature of a concave mirror.

- A. Size of image is greater than size of object
- B. Image is inverted
- C. Image is real
- D. All the above

Answer:



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325. Doctor advised to use a lens of $-2D$ for Karthik. By above statement what information you can give ? Explain the eye defect and also how you will correct it.



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326. A student collected information as follows. It is better to purchase a camera having less focal length. How you will analyse whether the above information is correct or not ?

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327. Write any one of the experiment conducted by Faraday on electromagnetism.

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328. We cannot decide the image distance in the case of virtual image formed by lenses. Is above statement correct or incorrect ? Explain with reasons.

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329. The following statement was read by Saritha. The induced emf in a coil is independent of the resistance of the coil. How you will verify and prove the above statement is true ?



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330. Nikita gave an information to Rupa as "The magnetic flux passing through a closed area kept inside a magnetic field is zero". How you will agree with it ?



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331. Your friend told a formula to you as $1/f = (n - 1)$

$\left(\frac{1}{R_1} - \frac{1}{R_2} \right), \frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ then he put the following questions.

What are the precautions that you have to take while using these formulae ?



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332. Your friend told a formula to you as $1/f = (n - 1)$

$\left(\frac{1}{R_1} - \frac{1}{R_2} \right), \frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ then he put the following questions.

In what context you have to use the two formulae ?



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333. Ganesh told me that we can catch the virtual image on the screen.

How you will analyse it ?



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334. Which one of the following statement is true regarding the focal power of a lens is 1D for a person suffering from eye defect ?

A. Long sightedness : Convex lens focal length = 100 cm

B. Short sightedness : Concave lens focal length = 100 cm

C. Long sightedness : Convex focal length = 50 cm

D. Short sightedness : Concave lens focal length = 50 cm

Answer:



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335. The three resistance A,B and C have values $3R, 6R$ and R respectively. When some potential difference is applied across the network, the thermal powers dissipated by A,B and C are in the ratio

A. $2 : 3 : 4$

B. $2 : 4 : 3$

C. $4 : 2 : 3$

D. $3 : 2 : 4$

Answer:



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336. Student : As temperature increases what happens to resistance ?

Teacher : As temperature increases resistance increases.

- A. As temperature increases density of electrons increases
- B. The charge on each electron increases
- C. The mass of each electron increases
- D. Number of collisions increases

Answer:



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337. A student connected Ammeter and Voltmeter in series to a battery.

The readings are A and V. If a resistance is connected in parallel to the voltmeter then

- A. Both A and V values increases
- B. Both A and V values decreases

C. A value increases, V value decreases

D. A value decreases, V value increases

Answer:



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338. Goutam saw his face in car rear view mirror. He observed that his image is smaller than the original.

What type of mirror it is ?



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339. Goutam saw his face in car rear view mirror. He observed that his image is smaller than the original.

What is the nature of image ?



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340. Goutam saw his face in car rear view mirror. He observed that his image is smaller than the original.

Draw the ray diagram for it.

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341. In the given below diagram discuss the image properties.

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342. Akhil told Avinash that convex lens converts the three types of rays i.e., parallel, divergent, convergent rays to convergent rays. Avinash does not agree with Akhil's words. Support your argument with ray diagrams.

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343. What represents this ray diagram ?

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344. What is the mirror used in car head light ?

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345. Where are the bulbs kept in a car ?

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346. Draw the ray diagram in the case of formation of virtual image when an object is kept on the principal axis of a concave mirror ?

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347. Draw the ray diagram of image position formed at a point sized object due to a plane mirror.

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348. Vikas who is having eyesight consulted an Ophthalmologist. He suggested to use concave lens. Then what is the nature of defect Vikas suffering from ? How the defect will be corrected ?

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349. Draw the picture which shows the connections of electrical in your home. Mention the names of symbols used.

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350. When white light incident on a prism it sends out 7 colours ? Draw a diagram showing this phenomenon.

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351. Name the different types of lenses .



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352. How do you appreciate the role of ciliary muscles in controlling the eye lens ?



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353. Grandfather of Daya is not able to read the newspaper. Observing that, Daya gave a lens to his grandfather and asked him to read newspaper.

Name the lens that was given by him.



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354. Grandfather of Daya is not able to read the newspaper. Observing that, Daya gave a lens to his grandfather and asked him to read newspaper.

Explain various factors for him to give such lens. Take the help of the diagram for clarity.



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355. Lisa is playing with plane mirror, she has seen her image in it.

What is the reason for forming that image ?



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356. Lisa is playing with plane mirror, she has seen her image in it.

She kept mirror in the Sun, when she touched it later, she felt that it is hot. What could be reason for that ?



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357. Lisa is playing with plane mirror, she has seen her image in it.

She stood away from the mirror which is exposed to sunlight and observed that the mirror is shining. What could be the reason for it ?



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358. Why do stars twinkle?



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359. For a car 40 watt power is utilised for its head lights to show less intensity of light and 50 watt power is utilised to show more intensity of light. In which case the resistance of head lights is more ? Discuss.



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360. Your friend needs 10 ohms resistance. He came to you and asked, but you have 40 ohms resistance.

How many resistors your friend will ask you ?



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361. Your friend needs 10 ohms resistance. He came to you and asked, but you have 40 ohms resistance.

How the resistors which are taken are connected ?



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362. Your friend needs 10 ohms resistance. He came to you and asked, but you have 40 ohms resistance.

Show that their effective resistance is 10 ohms.



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363. Convert the following temperature in degree centigrade.

0 K

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364. Convert the following temperature in degree centigrade.

25 K

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365. Convert the following temperature in degree centigrade.

100 K

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366. Convert the following temperature in degree centigrade.

210 K

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367. A, B are two bulbs, they are manufactured so that they can work at same voltage. The electric powers $P_A > P_B$. If P_A, P_B are connected in series with 'V' volts.

- A. A consumes more power than B
- B. B consumes more power than A
- C. The ratio of powers utilised depend on 'V'
- D. A and B utilise same power

Answer:

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368. Which is not suitable for domestic electric circuit ?

- A. All the electric appliances are connected in parallel.

B. Switch is connected parallel to the electric appliance, so that it consumes electricity even if the switch is closed or opened.

C. Switch is connected parallel to the electric appliance. If switch is closed the fuse will melt.

D. Switch can be connected in series or parallel with electric appliances.

Answer:



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369. In a circuit the battery is related to.

A. Battery supplies electrons to the circuit

B. Battery supplies electrons towards high potential

C. Battery pushes electrons towards low potential

D. Battery increases the speed of the electron and accelerates them

Answer:



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370. If the length of filament in a heater is reduced by 10%, then the electric power utilized by it

- A. Increases by 9%
- B. Increases by 11%
- C. Increases by 19%
- D. Increases by 10%

Answer:



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371. In the flow of electricity AC current is better than DC current. Why ?

- A. AC can be rectified.
- B. AC can be produced easily
- C. Thin conductors can be used
- D. This is very safe

Answer: All the above

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372. A container made up of Aluminium is at 30° . It is filled with hydrogen gas to $80^\circ C$. Answer the following basing on above information.

What is the change when an ion of hydrogen collides with some velocity ?

Compare with its initial velocity after collision takes place.

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373. A container made up of Aluminium is at 30° . It is filled with hydrogen gas to $80^\circ C$. Answer the following basing on above information.

The temperatures of both (vessel & ion) reaches to $45^{\circ}C$. Does heat transfer take place ?

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374. A container made up of Aluminium is at 30° . It is filled with hydrogen gas to $80^{\circ}C$. Answer the following basing on above information.

What is the average kinetic energy of free electrons of the metal if the average kinetic energy of H_2 ion is 20 units ?

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375. Suppose you are in a cold country. You will wear silk cloth so that your body is hot. How the silk is useful for you body to be warm ?

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1. Which of the following solution of acetic acid in water can be used as preservative?

A. 5 - 10%

B. 10 - 15 %

C. 15 - 20 %

D. 1

Answer:



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2. The suffix used for naming an aldehyde is ___

A. -ol

B. -al

C. -one

D. -ene

Answer:

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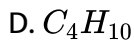
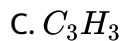
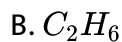
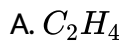
3. Acetic acid when dissolved in water it dissociates into ions reversibly because it is a _____

- A. weak acid
- B. strong acid
- C. weak base
- D. strong base

Answer:

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4. Which one of the following hydrocarbons can show isomerism?



Answer:



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5. Combustion of hydrocarbon is generally accompanied by the evolution of _____

A. Heat

B. Light

C. Both heat and light

D. Electric current

Answer:

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6. 2ml of ethanoic acid was taken in each of the three test tubes A, B and C and 2ml, 4ml and 8ml of water was added to them respectively. A clear solution is obtained in _____

- A. Test tube A only
- B. Test tubes A and B only
- C. Test tubes B and C only
- D. All the test tubes

Answer:

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7. If 2ml of acetic acid was added slowly in drops to 5ml of water then we will notice

- A. The acid forms a separate layer on the top of water.
- B. Water forms a separate layer on the top of the acid.
- C. Formation of a clear and homogeneous solution.
- D. Formation of a pink and clear solution.

Answer:

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8. A few drops of ethanoic acid were added to solid sodium carbonate.

The possible results of the reactions are

- A. A hissing sound was evolved
- B. Brown fumes evolved
- C. Brisk effervescence occurred
- D. A pungent smelling gas evolved

Answer:

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9. When acetic acid reacts with ethyl alcohol, we add conc. H_2SO_4 , it acts as.....

- A. Oxidizing agent, saponification
- B. Dehydrating agent, esterification
- C. Reducing agent, esterification
- D. Acid & esterification

Answer:

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10. Commercially available ethanol is known is

- A. rectified spirit
- B. absolute alcohol

C. adulterated alcohol

D. natured alcohol

Answer:



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11. Which of the following are molecules of varying sizes and also called Buckyballs ?

A. Diamond

B. Graphite

C. Buckminster fullerene

D. Nano tubes

Answer:



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12. $CH_3 - CH_2 - CH_2 - COOH$ is the IUPAC structure of

- A. Butanal
- B. Butanoic acid
- C. Butane
- D. But-1-ene

Answer:



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13. The IUPAC secondary suffix to the functional group for aldehydes is

- A. -ol
- B. -al
- C. -one
- D. -oic acid

Answer:

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14. The process of producing soaps is called

- A. Esterification
- B. Formation of micelle
- C. Saponification
- D. None

Answer:

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15. Which of the following is used as catalyst in the hydrogenation of vegetable oils ?

A. Iron

B. Cobalt

C. Nickel

D. Lead

Answer:

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16. $CH_3 - CH_2 - CH_2 - CH_3$ what is IUPAC name of the chain ?

A. Butane

B. But -1- ene

C. Butanal

D. Butan - 1 - ol

Answer:

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17. Which of the following is the general formula of a soap ?

A. RCOONa

B. RCOOK

C. A or B

D. None

Answer:



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18. Which of the following is known as tri-hy-droxy alcohol ?

A. Glycerol

B. Tristearin

C. Sodium stearate

D. ester

Answer:



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19. A spherical aggregate of soap molecules in water is called

A. Hydrophilic end

B. Hydrophobic end

C. Micelle

D. Cation

Answer:



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20. How much % solution of acetic acid in water is called vinegar ?

A. 3 - 5 %

B. 5 - 8%

C. 8 - 10 %

D. 10 - 12 %

Answer:

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21. Which of the following solution in gasoline is a good motor fuel ?

A. 1% ethanol

B. 10% ethanoic acid

C. 10% acetic acid

D. 10% ethanol

Answer:

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22. The suffix used for naming an carboxylic acids is

- A. ol
- B. -al
- C. - one
- D. - oio acid

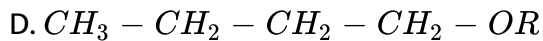
Answer:



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23. Which of the following is the formula for the IUPAC name of Butan - 1 - ol ?

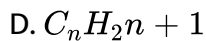
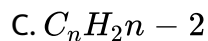
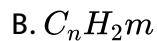
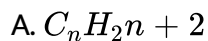
- A. $CH_3CH_2 - CH_2 - CH_2 - COOH$
- B. $CH_3 - CH_2 - CH_2 - CH_2 - CHO$
- C. $CH_3 - CH_2 - CH_2 - CH_2 - OH$



Answer:

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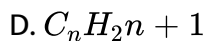
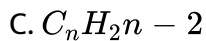
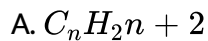
24. Which of the following is the general formula of homologous series of Alkanes ?



Answer:

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25. The general formula of alkynes is

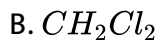


Answer:



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26. Which of the following is the formula of chloroform ?



Answer:

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27. Which of the following is the formula for the functional group of Esters ?

A. - OR

B. - COOR

C. -C = O

D. - CN

Answer:

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28. Which of the following is called absolute (100%) alcohol ?

A. Ethene

B. Ethanoic acid

C. Ethanal

D. Gasohol

Answer:



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29. When fats are treated with sodium hydroxide, sodium salts the fatty acids and.....is form ?

A. ester

B. alcohol

C. gasohol

D. glycerol

Answer:

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30. Which of the following gives low concentrated solutions. When it is put in water ?

A. micelle

B. soap

C. alcohol

D. ester

Answer:

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31. Which of the following are the compounds of carbon and hydrogen ?

A. Hydrocarbons

B. Alkanes

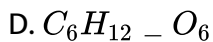
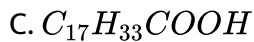
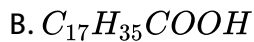
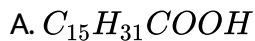
C. Alkynes

D. Alkenes

Answer:

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32. Which of the following is the formula of palmitic acid ?



Answer:

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33. $C_{17}H_{35}COOH$ is the formula of

A. Palmitic acid

B. Stearic acid

C. Oleic acid

D. Soap

Answer:



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34. Which of the following is the formula of oleic acid ?

A. $C_{15}H_{31}COOH$

B. $C_{17}H_{35}COOH$

C. $C_{17}H_{33}COOH$

D. CH_3COOH

Answer:

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35. Carbon and its compounds burn in presence of oxygen air to give

A. CO_2

B. heat

C. light

D. all

Answer:

 [Watch Video Solution](#)

36. Which of the following contribute to the flavours and fragrances of fruits and flowers ?

A. Ethers

B. Esters

C. Ketones

D. Nitriles

Answer:

 [Watch Video Solution](#)

37. The self linking property of carbon is called

A. fermentation

B. catenation

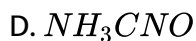
C. esterification

D. saponification

Answer:

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38. Which of the following is the formula of Ammonium cyanate ?



Answer:



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39. When Ethanoic acid is added to a solution of substance X, a colourless and odourless gas Y is liberated. The gas Y turns lime-water milky. The substance X is ____



C. CH_3COONa

D. NaCl

Answer:



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40. Soaps do not create water pollution because _____

- A. Soaps are insoluble in water
- B. Soaps are soluble in water
- C. Soaps are 100% bio-degradable
- D. Soaps are non-biodegradable

Answer:



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41. What percent of acetic acid is present in the vinegar that is used to preserve pickles ?

A. 5 - 8

B. 10 - 15

C. 100

D. 50

Answer:



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42. Which of the following compound is not a hydrocarbon ?

A. $R - CH_3$

B. $RCH = CH_3$

C. RCH_2OH

D. $CH_3CH = CH_2$

Answer:

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43. A few drops of ethanoic acid were added to solid sodium carbonate.

The possible results of the reactions are

- A. A hissing sound was evolved
- B. Brown fumes evolved
- C. Brisk effervescence occurred
- D. A pungent smelling gas evolved

Answer:

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44. In integrated circuit.....are used instead of copper to components together Model Paper Issued by AP Board, 2016

A. Graphite

B. C_{60}

C. Nano tube

D. PVC

Answer:

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45. The bond angle in HCH in the Methane molecule in

A. 180°

B. 120°

C. $109^\circ 28'$

D. 90°

Answer:

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46. The number of sigma and pi bonds present in ethyne is

A. 2,3

B. 5,1

C. 1,5

D. 3,2

Answer:



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47. Soaps are

A. Calcium salts of acids

B. Sodium or potassium salts of long chain fatty acids

C. Magnesium salts of acids

D. Salts of bases

Answer:

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48. The by-product of soap is

A. Glycerol

B. Isoprene

C. Butene

D. Ethylene glycol

Answer:

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49. Give the IUPAC name of HCOOH

A. Propanoic acid

B. Methanoic acid

C. Butanoic acid

D. Ethanoic acid

Answer:

 [Watch Video Solution](#)

50. $KMnO_4$ is in.....colour.

A. Purple

B. Yellow

C. Orange

D. Green

Answer:

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51. Which process is involved in dirt cleaning ?

- A. Oxidation
- B. Reduction
- C. Emulsification
- D. saponification

Answer:



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52. Main constituent of biogas is

- A. Butane
- B. Ethane
- C. Propane

D. Methane

Answer:



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53. $C_{15}H_{31}COOH$ is commonly known as

A. Lauric acid

B. Stearic acid

C. Oleic acid

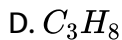
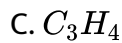
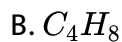
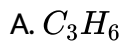
D. Palmitic acid

Answer:



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54. Which of the following molecular formula belongs to alkyne family ?



Answer:



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55. The correct IUPAC name of compound with molecular formula $(CH_3)_3CCH_3$ is

A. 2,2-Dimethyl propane

B. Pentane

C. Neopentane

D. 1,1,1-Trimethyl ethane

Answer:

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56. Which of the following can be used for the denaturation of ethyl alcohol ?

- A. Pyridine
- B. Copper sulphate
- C. Methyl alcohol
- D. All

Answer:

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57. The soap molecule has.....

- A. hydrophilic head and a hydrophobic tail
- B. hydrophobic head and a hydrophilic tail

C. hydrophobic head and a hydrophobic tail

D. hydrophilic head and a hydrophilic tail

Answer:

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58. In the preparation of soap.....is used as solvent

A. Alkali

B. Acetone

C. Alcohol

D. Aldehyde

Answer:

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59. Dehydration of ethyl alcohol to ethylene is carried by heating with

A. Concentrated H_2SO_4 at $200K$

B. Acidified $KMnO_4$ solution

C. Concentrated H_2SO_4 at $443K$

D. Alkaline $KMnO_4$ solution

Answer:



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60. An ester has

A. odour less smell

B. pungent smell

C. rotten egg smell

D. pleasant fruit smell

Answer:



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61. A student takes about 2ml of ethanoic acid in a test tube and adds a pinch of $NaHCO_3$ to it. He reports the following.

Immediately a colourless and odourless gas evolves with a brisk effervescence.

The gas turns lime water milky

The gas burns with an explosion when a burning splinter is brought near it

The gas extinguishes the burning splinter.

A. I,ii and iv

B. I,iii and iv

C. ii,iii and iv

D. I,ii and iii

Answer:



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62. Alcohols can be produced by the hydration of

A. Alkynes

B. Alkenes

C. Alkanes

D. Acids

Answer:



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63. In order to show branching, an organic compound must have a minimum of

- A. Three carbon atoms
- B. Four carbon atoms
- C. Five carbon atoms
- D. Six carbon atoms

Answer:

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64. Soaps are formed by the saponification of

- A. Alcohols
- B. Simple esters
- C. Carboxylic acids
- D. Glycerides

Answer:

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65. Acid + Alcohol

A. Ketone

B. Soap

C. Ester

D. Aldehyde

Answer:



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66.end of soap bonds with dirt.

A. Hydrophilic only

B. Hydrophobic only

C. Both A and B

D. None

Answer:

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67. Which one of the following statements is not correct ?

- A. Acetic acid is highly soluble in water
- B. Acetic acid turns red litmus blue but it does not effect blue litmus.
- C. Acetic acid is a weak acid and it ionizes partially
- D. Acetic acids reacts with $NaHCO_3$ to form colourless and odourless gas.

Answer:

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68. Soap micelles in water will not come together to precipitate because of

- A. Electro positivity of micelles
- B. Electro negativity of micelles
- C. Ion-Ion attraction between micelles
- D. Ion-Ion repulsion between micelles

Answer:



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69. A spherical aggregate of soap molecule in water is called.

- A. Hydrophilic end
- B. Hydrophobic end
- C. Miscelle
- D. Cation

Answer:

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70. $2C_2H_6 + 7O_2 \rightarrow 4CO_2 + 6H_2O + e \neq rgy$. This is.....type of reaction.

- A. reduction
- B. oxidation
- C. combustion
- D. addition

Answer:

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71. Which of the following represents the correct increasing order of unsaturated carbon ?

A. Alkynes, Alkanes, Alkenes

B. Alkanes, Alkynes, Alkenes

C. Alkenes, Alkynes, Alkanes

D. Alkanes, Alkenes, Alkynes

Answer:

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72. Bad conductor of electricity is

A. Graphite

B. Graphen

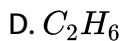
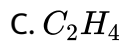
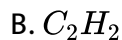
C. Diamond

D. Nanotube

Answer:

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73. sp^3 hybridization is found in

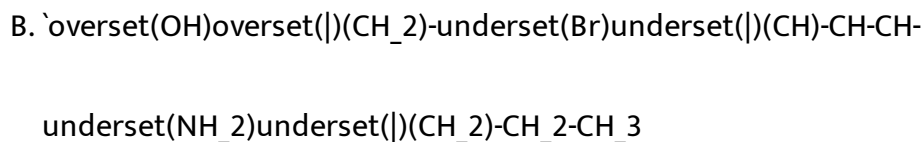
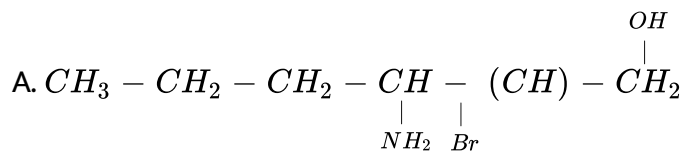


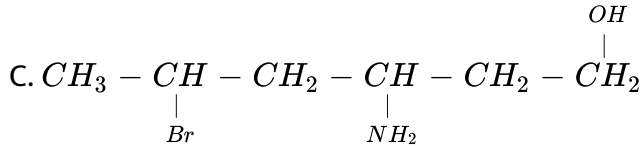
Answer:



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74. Draw the structure of: 3-amino-2-bromo hexan-1-ol



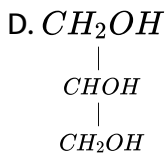
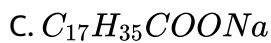
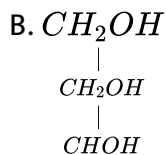
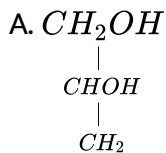


D. None

Answer:

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75. Glycerol is.....



Answer:



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76. Which of the following is a good conductor of heat and electricity?

- A. Anthracite
- B. Charcoal
- C. Diamond
- D. Graphite

Answer:



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77. Which of the following is alkane?

- A. C_4H_{10}
- B. $C_4 - H_8$
- C. C_4H_6

D. C_6H_6

Answer:



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78. The functional group of Ketones is ____

A. - OH

B. - CHO

C. - O -

D. 

Answer:



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79. The functional group present in ethers is

A. 

B. - C - OH

C. C - O - C

D. - COOH

Answer:

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80. C_{60} has arranged by _____ pentagons and _____ hexagons.

A. 20,12

B. 12,20

C. 21,20

D. 12,01

Answer:

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81. What is about energy and properties of newly formed orbitals ?

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82. Who introduced the concept of hybridisation ?

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83. How many types of hybridizations are there ? Either one or many ?

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84. Among which type of orbitals, redistribution takes place ?

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85. Which type of hybridisation is there in graphite ?

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86. Why do we use graphite in pencils for writing ?

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87. How is it possible to use graphite in electricity ?

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88. We can break the layers of graphite easily - Why ?

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89. How many categories that hydrocarbons classified into ?



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90. According to bond formation, how types of hydrocarbons are there ?



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91. Which hydrocarbons are called as alkanes ?



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92. Do straight chain compound and branched chain compound have similar properties ?



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93. Write any four properties of carbon and explain.



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94. Which allotropes are used as good conductors ? Why ?

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95. $\text{^2HC} = \text{CH} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$. Write a few sentences about this compound.

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96. How do you say combustion is an oxidation process ? Give an example.

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97. Acetic acid is

A. A weaker acid than HCl

B. A stronger acid than HCl

C. A stronger acid than HNO_3

D. A stronger acid than H_2SO_4

Answer:

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98. The nature of second grade functional groups is given by

A. Primary prefix

B. Secondary prefix

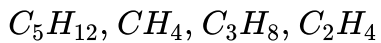
C. Primary suffix

D. Secondary suffix

Answer:

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99. Identify the alkanes given below.



A. iv

B. I,ii

C. I,ii,iii

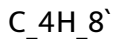
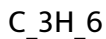
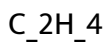
D. ii,iv

Answer:



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100. Identify the alkenes given below.



A. ii

B. I,iii

C. ii,iii

D. I,iv,iii

Answer:

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101. Conversion of ethyl alcohol into Acetic acid is

A. combustion

B. oxidation

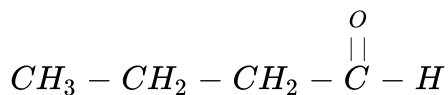
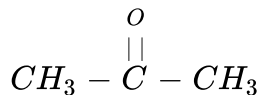
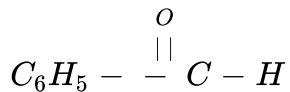
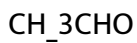
C. addition

D. substitution

Answer:

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102. Which of the following are aldehydes ?



A. I,ii

B. ii,iii,iv

C. I,ii,iii

D. I,ii,iv

Answer:



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103. Which of the following are compounds ?

Sugar

Common salt

Diamond

Plaster of Paris

A. I,ii

B. I,ii,iv

C. ii,iii,iv

D. I,ii,iii,iv

Answer:



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104. Unsaturated compound undergoes

A. Combustion

B. Oxidation

C. Addition

D. Substitution

Answer:



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105. Vegetable oils contains

A. saturated long chain fatty acid

B. saturated long chain alcohols

C. unsaturated long chain fatty acid

D. unsaturated long chain alcohols

Answer:



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106. Gasohol is a mixture of

- A. Alcohol + ether
- B. Alcohol + water
- C. Alcohol + gasoline
- D. Alcohol + kerosene

Answer:

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107. The IUPAC name of $\begin{array}{c} OH \\ | \\ CH_2 \end{array} - \begin{array}{c} OH \\ | \\ CH_2 \end{array}$

- A. Ethylene glycol
- B. 1,2 -dihydroxy ethane
- C. Ethane - 1, 2 -di ol
- D. All are correct

Answer:



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108. IUPAC name of $CH - \overset{O}{\parallel} C - CH_2 - CH_2 - CH_2 - CH_2 - CH_2OH$

is

A. 1 - hydroxy - heptan - 6 -one

B. 2 - oxo heptanol

C. 7 - hydroxy heptan - 2- one

D. 7 - hydroxy hepta ketone

Answer:



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109. Which of the following scientist disproved vital force theory?

A. Berzelius

B. Wurtz

C. Wohler

D. Kolbe

Answer:

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110. Hybridisation and bond angle in ethane is

A. SP^3 , 120°

B. sp^2 , 120°

C. sp, 180°

D. sp^3 , $109^\circ 28'$

Answer:

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111. Write a few sentences about sp hybridisation ?

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112. How do π - bonds are formed ? How many π - bonds are there in sp hybridisation ?

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113. Explain any two properties of carbon.

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114. Write the name of an alkyne ? What is its general formula ?

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