



CHEMISTRY

BOOKS - MODERN PUBLICATION

ALDEHYDES, KETONES & CARBOXYLIC ACIDS

Excercise

1. One mole of an organic compound requires 0.5 mole of oxygen to produce an acid. The

compound may be:

A. alcohol

B. ether

C. ketone

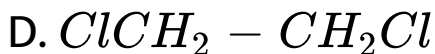
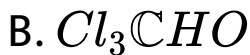
D. aldehyde

Answer: D



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2. Which of the following will react with water :



Answer: B



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3. Name the reagent in the reaction.

Oxidation of primary alcohol to an aldehyde.

A. $KMnO_4$

B. H_2O_2

C. Active MnO_2

D. OsO_4

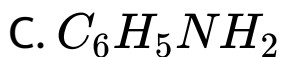
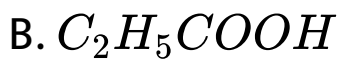
Answer: C



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4. Vaccine are prepared from:

A. $C_2H_5 - C_2H_5$



Answer: D



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5. Acetone can be easily converted into propane by action of



B. H_3PO_3

C. HNO_3

D. HIO_3

Answer: A



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6. Alkaline hydrolysis of an ester is called

A. Hydration

B. Esterification

C. Hydration

D. None of these

Answer: C



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7. Formic acid and acetic acid can be distinguished by

A. Fehling's solution

B. $NaHCO_3$

C. Tollen's reagent

D. None of these

Answer: C



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8. Which of the following is soluble in water ?

$(CCl_4, C_6H_6, CH_3OH, C_2H_6)$

A. Acetamide

B. Acetyl chloride

C. Ethyl acetate

D. None of these

Answer: A



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9. Which of the following exists in dimeric form _____

A. Ethyl alcohol

B. Acetaldehyde

C. Formic acid

D. Acetone

Answer: C



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10. Which is not cancer ?

A. Succenic acid

B. Critic acid

C. Carbolic acid

D. Maleic acid

Answer: C



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11. Which one of the following is a weak electrolyte?

A. Chromic acid

B. Perchloric acid

C. Acetic acid

D. Hydrochloric acid

Answer: C



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12. In which of the following case

Hell-Volhard-Zelinsky reaction can take place?

A. Determine the percentage of halogen in
a compound.

B. Distinguish primary alcohol for secondary alcohol.

C. Synthesis of α -bromo acids.

D. Synthesis of α -hydroxy acids.

Answer: C



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13. Which of the following compounds does not have a carboxyl group :

A. Benzoic acid

B. Palmitic acid

C. Picric acid

D. Oleic acid

Answer: C



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14. Vinegar is an aqueous solution of

A. Ethanoic acid

B. Benzoic acid

C. Citric acid

D. Oxalic acid

Answer: A



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15. Sodium formate on heating with soda lime

give:

A. Benzene

B. Toluene

C. Benzaldehyde

D. Benzoic acid

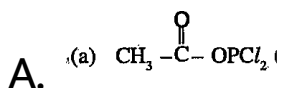
Answer: A

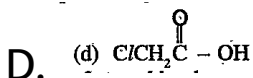
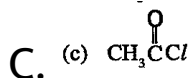
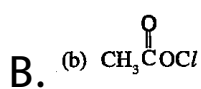


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16. Concentrated nitric acid reacts with iodine

to give:





Answer: C



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17. Acetic acid is manufactured by the fermentation of :

A. NaOH

B. dil HCl

C. PCl

D. *Conc.* H_2SO_4

Answer: A

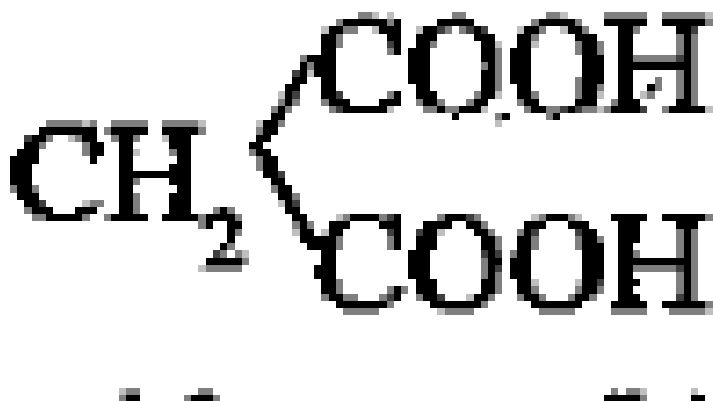


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18.

Malonic

acid



on

heating gives :

- A. Methane
- B. Formic acid
- C. Acetic acid
- D. Ethane

Answer: C



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19. Formic acid and acetic acid may be distinguished by reaction with :

A. Litmus solution

B. Caustic soda

C. $NaHCO_3$

D. Ammoniacal $AgNO_3$

Answer: D



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20. α -hydroxy acetic acid is also known as :

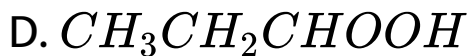
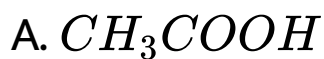
- A. Formic acid
- B. Acrylic acid
- C. Lactic acid
- D. Glycollic acid

Answer: C



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21. Vinegar contains

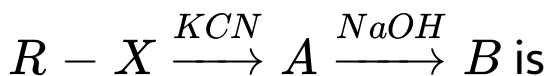


Answer: A



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22. The end product in the sequence of reaction



- A. an alkane
- B. a carboxylic acid
- C. sodium salt of carboxylic acid
- D. saponification

Answer: C



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23. $RCOOH \rightarrow RCH_2OH$. This mode of reduction of an acid to alcohol can be affected by

A. Zn/HCl

B. $Na/Alcohol$

C. Aluminium isopropoxide and isopropyl alcohol

D. $LiAlH_4$

Answer: D



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24. Formic acid is obtained by the hydrolysis of

A. HCN

B. CH_3CN

C. $(COONa)_2$

D. $CO + CO_2$

Answer: A



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25. Carboxylic acids are more soluble in

A. ether

B. C_6H_6

C. Na_2CO_3 solution

D. $CHCl_3$

Answer: C



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26. Acids are obtained as a result of reaction between a Grignard reagent and

A. oxygen

B. CO_3

C. CH_3COCl

D. CH_3CHO

Answer: B



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27. Monocarboxylic acids are the functional isomer of -

A. esters

B. alcohols

C. ethers

D. aldehydes

Answer: A



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28. Electrolysis of sodium salt of maleic acid to ethyne is known as

- A. Wurtz's reaction
- B. Clemmensen's reduction
- C. Kolbe's reaction
- D. Sabatier senderen's reactions

Answer: C



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29. Which of the following cannot reduce Fehling's solution?

A. Formic acid

B. Acetic acid

C. Formaldehyde

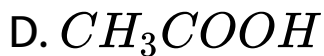
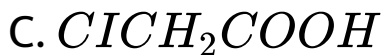
D. Acetaldehyde

Answer: B



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30. Which acid is strongest?



Answer: A



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31. Vinegar contains

A. 10 to 20% acetic acid

B. 10% acetic acid

C. 6 to 10% acetic acid

D. 100% acetic acid

Answer: C



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32. Sodium phenoxide can be converted to salicylic acid by reacting with _____ and the reaction is called as _____



Answer: C



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33. Stephen's reaction is used to prepare aldehydes from:

A. aldehyde

B. ketones

C. primaryamine

D. bromoacids

Answer: D



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34. Acetamide is converted to methylamine when it is heated with—

A. amphoteric

B. acidic

C. basic

D. neutral

Answer: A



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35. The reverse of esterification is known as:

A. acidolysis

B. transesterification

C. hydrolysis

D. neutralisation

Answer: C



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36. Which of the following will not undergo Hell Volhard Zelinsky reaction

A. Ethanoic acid

B. Propanoic acid

C. Trichloro acetic acid

D. 2-Methyl Propanoic acid

Answer: C



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37. Ammonium formate on heating yields:

- A. formamide
- B. ammonium acetate
- C. formic acid
- D. acetamide

Answer: A



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38. Formic acid and acetic acid may be distinguished by reaction with :

A. sodium

B. dilute acidified $KMNO_4$

C. 2,4 dinitrophenylhydrazine

D. sodiummethoxide

Answer: B



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39. Which of the following acid is weakest?

A. Citric acid

B. Tartaric acid

C. Malicacid

D. All of these

Answer: A



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40. Which of the following has the smallest size ?

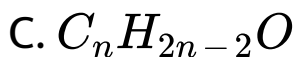
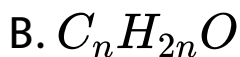
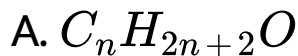


Answer: C



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41. The general formula of aldehyde and ketone is -



Answer: B



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42. The reaction of acetaldehyde with $Ba(OH)_2$ solution is known as -

- A. Aldol condensation
- B. Oxidation reaction
- C. Cannizaro's reaction
- D. Clausen - Schmidth reaction

Answer: A



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43. Paraldehyde is used as a :

- A. dimer formaldehyde
- B. trimer of acetaldehyde
- C. hexamer of formaldehyde
- D. Polymer of acetaldehyde

Answer: B



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44. Which of the following does not respond Fehling's solution ?

A. glucose

B. acetaldehyde

C. benzaldehyde

D. none of these

Answer: C



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45. In Rosenmund reduction the catalyst used is -

A. $Pd - BaSO_4$

B. $Sn - HCl$

C. $Zn - HCl$

D. none of these

Answer: A



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46. What is the basicity of H_3PO_4 ?

A. formaldehyde

B. acetaldehyde

C. acetone

D. propionaldehyde

Answer: C



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47. Ethylmethyl ketone can be obtained by the oxidation of -

- A. butan-2-ol
- B. propan-2-ol
- C. pentan-2-ol •
- D. none of these

Answer: A



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48. A mixture of formaldehyde and benzaldehyde on heating with aqueous NaOH solution gives -

- A. benzyl alcohol and sodium formate
- B. sodium benzoate and methyl alcohol
- C. sodium benzoate and sodium formate
- D. benzyl alcohol and methyl alcohol.

Answer: A



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49. Clemmensen reduction of a ketone is carried out in presence of -

- A. H_2 with pd
- B. Li with water
- C. $Zn - Hg$ and HCl
- D. none of these

Answer: C



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50. Ethers react with conc. H_2SO_4 to form

- A. catalyst
- B. dehydrating agent
- C. hydroysingagent
- D. none of these

Answer: D



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51. Ketones are prepared by:

- A. primary alcohol
- B. secondary alcohol
- C. tertiary alcohol
- D. none of these

Answer: B



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52. Which of the following is suitable for experiment on linkage ?

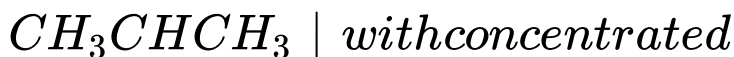
A. Heating $CH_3CH_2CH_2OH$ with acidic



B. Passing $CH_3CH - OHCH_3$ over

heated copper

C. Oxidation of



D. Heating $CH_3CH = CH_2$ with dilute



Answer: B



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53. Which product when Phenol undergoes oxidation with air ?

A. Cyclopentene

B. cyclopentanone

C. cyclopentane

D. cyclopentanal

Answer: B



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54. What structural feature is necessary for an aldehyde to undergo aldol condensation and Cannizzarro' s reaction ? Give the names of the aldehydes which undergo the above reactions.

A. I and III

B. II and IV

C. I, II and III

D. I, III and IV

Answer: C



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55. Which of the following compounds exists?



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56. HI reacts with HNO_3 to form

- A. Electrophilic addition reaction
- B. Electrophilic substitution reaction
- C. Nucleophilic addition reaction
- D. Nucleophilic substitution reaction

Answer: C



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57. Which of the following will react with water

:

A. Grignard reagent

B. Fehling's reagent

C. Tollen's reagent

D. Schiff's reagent

Answer: A



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58. SO_2 reacts with chlorine to form



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59. The reaction of ethanol with H_2SO_4 does not give:

A. Acetal

B. Hemiacetal

C. Ketal

D. Hemiketal

Answer: B



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60. The reaction,



as:

- A. Clemmensenreduction
- B. Wolf-Kishnerreduction
- C. Rosenmund reduction

D. Reformatsky reduction

Answer: B



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61. The reaction,

.....

$RCl + NaI \xrightarrow{\text{Acetone}} R-I + NaCl$ is known as: is known

as:

A. Clemmensen reduction

B. Wolf-Kishnerreduction

C. Roseninundreduction

D. Aldol condensation

Answer: A



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62. Carbon atom of carbonyl group In a ketone

is of :

A. sp hybridised

B. sp^2 hybridised

C. sp^3 hybridised

D. none of these

Answer: B



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63. The enolic form of acetone contains :

A. nine sigma bonds plus one π bond

B. ten sigma bonds

C. eight sigma bonds plus two π bonds

D. nine pi bonds plus one sigma bond

Answer: A



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64. Formalin is:

A. 10% solution of formaldehyde in water

B.

C.

D.

Answer: C



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65. Which of the following will have the highest boiling point at 1 atm pressure:

A. Propanone

B. 2-pentanone

C. Butanone

D. 2-hexanone

Answer: D



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66. Which of the following will have the highest boiling point at 1 atm pressure:

A. Methanal

B. Ethanal

C. Propanal

D. Butanal

Answer: D



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67. The molecular weight of hydrogen peroxide is 34. What is the unit of the molecular weight ?

A. The ability to form strong H—bonds between their molecules.

B. The ability of the carbonyl oxygen to form H—bonds with other

carbonyl groups.

C. The ability of the polar carbonyl group to attract other polar molecules.

D. The ability of the carbonyl group to attract electrophiles and form bonds.

Answer: C



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68. Which have high boiling points:

A. lower than

B. higher than

C. about the same

D. none of these

Answer: B



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69. The boiling points of aldehydes and ketones lie in between alkanes and alcohols of comparable masses because :

A. decrease with increasing molecular weight

B. increase with increasing molecular weight

C. remain unchanged with increasing molecular weight

D. be unpredictable due to resonance

Answer: B



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70. Oximes are formed by the action of aldehydes and ketones with:

A. Polar interaction between solute molecules

B. H—bonding between solute molecules

C. Van-der-waals forces

D. H—bonding between solute and solvent molecules.

Answer: D





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71. Formaldehyde is used for _____ and _____



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72. Acetone is used



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73. The formation of cyanohydrin from a ketone is an example of _____



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74. Why ethanol is soluble in water?



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75. Methanol is acidic in nature.



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76. BGA chiefly used as_____.



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77. Aldehydes are obtained by the catalytic dehydrogenation of _____



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78. Glucose cannot be classified as:



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79. Aldehydes can be oxidised by:



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80. Aldehydes and ketones are collectively known as _____.



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81. Metaldehyde and paraldehyde have _____ structure.



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82. Why ammonia is not dried by conc. H_2SO_4 ?



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83. In Rosenmund reduction the catalyst used is -



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84. Acetaldehyde is used :



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85. ketones can be prepared by the oxidation of _____



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86. Aldehydes and ketones both contain a _____ group.



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87. What is formed by the evaporation of the aqueous solution of formaldehyde ?



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88. What reacts with aldehydes and ketones in presence of HCl to form corresponding phenyl hydrazones?



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89. At room temp., formaldehyde is a ____.



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90. Which aldehyde, does not react with Fehling's solution ?



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91. Write the reaction between XeF_2 and KF ?



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92. Name the reagent to distinguish between 2-pentanone and 3-pentanone



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93. Acid chlorides are converted to their aldehydes by_____



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94. _____ distinguishes between acetaldehyde and acetone.



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95. Cannizzaro's reaction is shown by aldehydes containing _____.



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96. IUPAC name of:



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97. Benzoic acid does not undergo _____.





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98. Hexamethylene tetramine is commonly known as _____.



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99. Ketones do not undergo oxidation easily due to _____.



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100. Reduction of Ag^+ ions, provided by Tollen's reagent to silver metal is known as _____.



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101. Aldehydes restore the ___ colour of Schiff's reagent.



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102. Alkaline solution of copper sulphate containing sodium potassium tartrate is called as _____.



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103. 40% of aqueous solution of formaldehyde is called _____.



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104. Name the product formed when calcium acetate is heated with calcium formate.



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105. $2\text{HCHO} + \text{NaOH} \rightarrow \text{HCOONa} + \text{_____}$.



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106. Acetaldehyde can not exhibit :



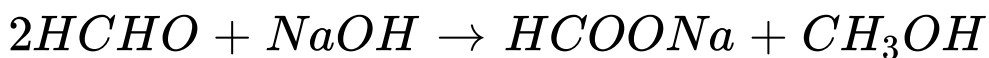
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107. The superbug can be used in



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108.



is an example of — reaction.



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109. Acetaldehyde reacts with:



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110. How many sigma and pi bonds are present in formaldehyde molecule ?



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111. What is formed if calcium acetate is heated at $400^{\circ}C$?



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112. Fehling's solution is a mixture of _____ and _____.



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113. Ammoniacal solution of silver nitrate is known as _____.



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114. Aldehydes reacts with hydroxylamine to produce -



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115. Acetaldehyde + conc. $H_2SO_4 =$ _____



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116. write one use of XeF_4



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117. _____ will not give iodoform test.



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118. Rosenmond's reaction _____ and _____ used as catalyst.



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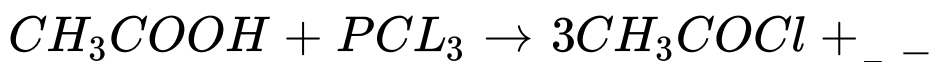
119. $HCOOH + NaOH \rightarrow _ _ + _ _$





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120.



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121. When an acid is reduced $_$ is formed.

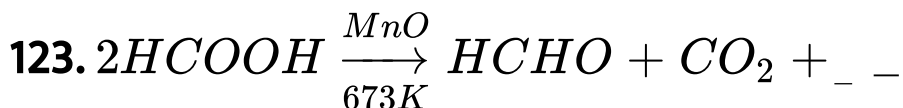


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122. Formic acid is _____ acid than acetic acid.



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124. _____ is the strongest of all aliphatic monocarboxylic acids.



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125. Fill in the blanks: Amides on reduction with $LiAlH_4$ gives



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126. $CH_3COOH + C_2H_5OH \rightarrow _ _ + H_2O$



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127. Vinegar is $_$ solution of acetic acid.



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128. Acetic acid is used in the preparation of

A. ethane

B. methane

C. acetone

D. all of these

Answer: Methanoic acid



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129. _____ is the only aliphatic carboxylic acid which acts as a reducing agent.



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130. Formic acid is _____ acid than acetic acid.



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131. Acetic acid smells like _____



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132. The neutral solution of sodiumformate produces red colouration with neutral_____



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133. Formic acid is used as a ___agent for rubber latex.



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134. When acetic acid is treated with PCl_3 ,
___ results.



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135. Which of the following cannot reduce Fehling's solution?



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136. IUPAC name of

$CH_3CH = CHCOOC_2H_5$ is ____



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137. Formic acid:



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138. ____ is formed when acetic acid is treated with $NaHCO_3$.



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139. To produce an alkane, a carboxylic acid reacted upon _____ reagent.



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140. General formulae of aliphatic monocarboxylic acid is _____



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141. Sodium acetate is subjected to electrolysis to produce ____



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142. When sodium formate is heated upto 360°C , the product is ____



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143. Calcium salt of all acids except formic acid as dry distillation gives_____



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144. When sodium salt of carboxylic acid reacts with soda lime ____ is produced.



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145. When sodium salt of carboxylic acid reacts with soda lime ____ is produced.



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146. Dehydration of an amide with P_2O_5 gives



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147. Acetyl chloride on heating with _____ gives acetic anhydride.



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148. $CH_3COCl + NH_3 \rightarrow$ _____



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149. $CH_3COCl + CH_3OH \rightarrow$ _ _ + HCl



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150. Acid chlorides react with _____ to form amides.



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151. Lower members of amide family soluble in _____



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152. General formula of ester is _____



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153. General formula of amides is _____



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154. General formula of acid halide is _____



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155. Derivative of carbonic acid is/are _____

- A. phosgene
- B. dimethyl carbonate
- C. urea
- D. all of the above

Answer: sodium hydroxide



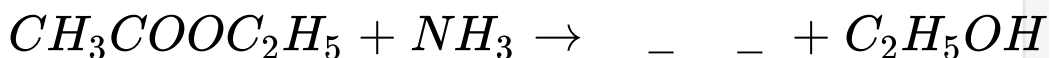
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156. Acetamide reacts with bromine in presence of _____ to produce methylamine.



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157.



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158. Acetyl chloride on reduction with $LiAlH_4$ gives _



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159. Draw the Structure and write the formula of ethylformate .



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160. Acetic acid is formed on hydrolysis of



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161. Benzaldehyde does not undergo Aldol condensation, whereas acetaldehyde does because _____.



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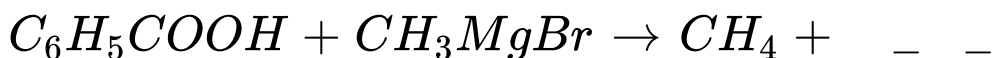
162. _____ being an aldehyde does not respond

Fehling solution test.



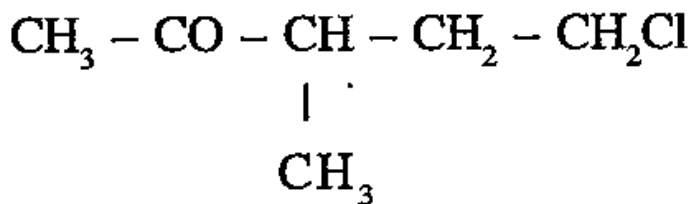
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163.



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164. Write the IUPAc name of compound



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165. The general formula of aldehyde and ketone is -



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166. Aldehydes and ketones are functional isomers of each other. (True/False)



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167. Give some examples of aldehydes.



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168. Give some examples of ketones



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169. Give the IUPAC name of $CH_3 - CH = O$



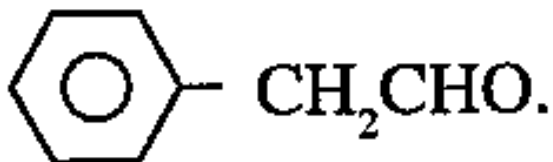
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170. What type of hybridization is present in carbon atom of carbonyl group?



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171. Give the IUPAC name of the following:



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172. Write the structural formula of pentane-2,4-diol.



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173. Name any aldehyde other than formaldehyde that respond to Cannizzaro's reaction



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174. Which alkene on ozonolysis gives acetone ?



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175. which aldehyde can undergo iodoform test?



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176. Name one reagent used to distinguish between acetaldehyde and acetone.



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177. what is the IUPAC name of formaldehyde?



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178. Arrange $HCHO$, CH_3CHO and CH_3COCH_3 in order of increasing reactivity towards HCN .



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179. What happens when formaldehyde reacts with HCN ?



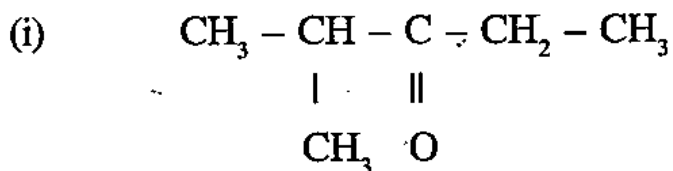
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180. What happens when ethylene reacts with ozone ?



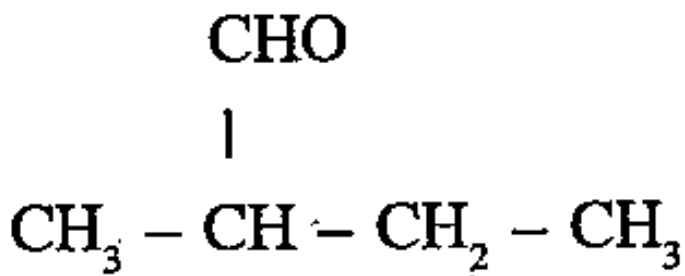
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181. Write the IUPAC name



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182. Write the IUPAC name of



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183. When acetaldehyde reacts with hydroxylamine _____ is formed.



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184. Concentrated alkali like $NaOH$ should be used in ___



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185. What happens when aldehyde reacts with Tollens' reagent ?



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186. Give the structure of pinacol.



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187. What happens when formaldehyde reacts with ammonia?



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188. Name the reagent that can be used to convert glycol into acetaldehyde.



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189. Does $HCHO$ undergoes Cannizzaro's reaction ?



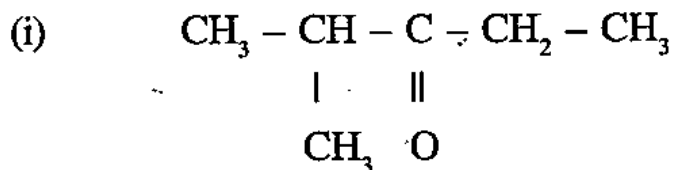
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190. Write general formula of carboxylic acid .



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191. Write the IUPAC name



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192. Write the IUPAC name and formula of Acetic Acid.



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193. Write the IUPAC name and formula of Formic Acid.



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194. Write the IUPAC name and formula of Butyric Acid.



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195. Write the IUPAC name and formula of



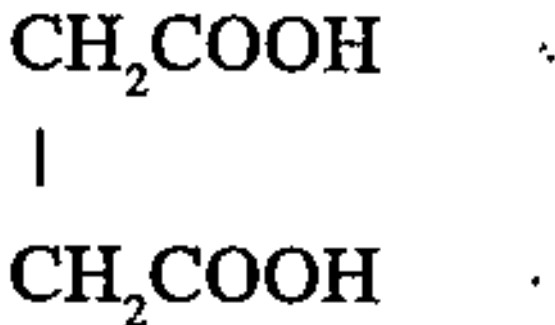
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196. Write the IUPAC name of



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197. Write the IUPAC name of



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198. Formic acid is stronger than acetic acid.

Give reason



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199. Give the structural formula of Ethyl formate.



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200. Write the structural formula of 2-Hydroxy Butanoic Acid



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201. What is nature of acetamide?



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202. Name the product formed when acetone is warmed with sodium hypoiodite solution



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203. Name the product formed when calcium acetate is heated with calcium formate.



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204. Benzoic acid is a stronger acid than phenol.



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205. What happens when acidic chloride is boiling xylene is reduced by hydrogen in presence of palladised barium sulphate catalyst?



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206. Explain why trichloro-acetaldehyde does not undergo aldol condensation?



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207. What is Aldol condensation ?



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208. What happens when acetone is treated with amalgamated zinc and concentrated HCl?



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209. How are aldehydes distinguished from ketones using Tollens and Fehling's reagent ?



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210. What are aldehydes and ketones?



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211. What happens when carbonyl compound reacts with phenylhydrazine ?



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212. Give an example of reaction of aldehyde with Tollen's reagent.



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213. What happens when acetaldehyde reacts with Benedict's reagent ?



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214. Give a reaction between acetaldehyde and hydroxylamine.



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215. What is formalin ?



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216. What is use of formalin ?



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217. Why B.P. of aldehydes and ketones are lower than corresponding alcohols ?



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218. What happens when propene is passed through warm alkaline $KMnO_4$ solution?



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219. What is condition of Cannizzaro's reaction ?



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220. What are the similarities of $C = C$ and $C = O$ bonds?



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221. Explain why the lower members of carbonyl compounds are soluble in water ?



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222. What type of ketones undergo iodoform test?



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223. Acetone forms cyanohydrin with _____.



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224. What is Rosenmund reduction reaction?



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225. What happens when acetaldehyde reacts with HCN ?



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226. How will you convert acetaldehyde to acetone?



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227. What is Popoff's Rule ?



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228. What happens when formaldehyde is treated with Sodium hydroxide solution ?



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229. What happens when acetone reacts with chloroform in presence of KOH ?



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230. What are fatty acids?



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231. What is carboxylic acid ?



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232. What happens when formic acid react with sodium ?



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233. What happens when alkyl cyanides are hydrolysed with dilute acid or alkali ?



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234. What happens when acetic acid is treated with ammonia followed by heating?



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235. How formic acid reacts with Tollen's reagent?



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236. What happens when formic acid is treated with Fehling's solution?



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237. What happens with when acetic acid is heated with P_2O_5 ?



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238. What is esterification reaction ? Give an example.



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239. What happens when formic acid reacts with acidified $KMnO_4$ solution?



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240. Why lower acids are soluble in water ?



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241. What happens when acetic acid reacts with metallic sodium ?



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242. What happens when acetic acid is treated with $NaHCO_3$?



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243. What happens when acetic acid reacts with ethyl alcohol in presence of conc. H_2SO_4 ?



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244. What happens when formic acid is heated with sodalime ?



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245. Write the chemical reaction of fruit vinegar process.



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246. What happens when sodium acetate is heated with sodalime?



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247. Convert butanol into butanoic acid



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248. What happens when ethyl acetate is heated with KOH? Give equation.



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249. What happens when ethyl acetate reacts with $NaOH$?



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250. What happens when acetamide is boiled with NaOH solution?



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251. Convert methyl iodide to acetic acid.



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252. What is the reaction of acetic acid with lime water?





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253. How can you get acetone from acetic acid?



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254. How will you convert malonic acid into acetic acid ?



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255. Write uses of formic or methanoic acid.



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256. What is the reaction of formic acid with sodium ?



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257. What happens when sodium acetate is heated with sodalime?



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258. How ethyl alcohol can be converted to acetone ?



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259. State two uses of acetic acid.



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260. Write the common and IUPAC name of $(CH_3COO)_2Ca$.



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261. Why acetamide is soluble in water ?



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262. What happens when a weak acid reacts with thionyl chloride ?



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263. Convert toluene into benzaldehyde.



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264. Write the reaction for benzaldehyde from toluene.



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265. How benzaldehyde is obtained by at Etard's reaction ?



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266. What happens when CH_3CHO reacts with NH_2OH ?



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267. Write one chemical equation for each to illustrate the following reaction: Rosenmund reduction



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268. Write the steps and conditions involved in the following conversion . Acetophenone to 2-phenyl -2-butanol



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269. Describe simple chemical test to distinguish between the diethyl ether and propanol.



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270. Write about the following conversion.
Benzoyl chloride to benzonitrile.



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271. Why sodium bisulfite is used for the purification of aldehydes and ketones ?



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272. Give one test to distinguish between acetaldehyde and acetone.



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273. Give a chemical test to distinguish between acetaldehyde and benzaldehyde.



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274. Give an example of each of acetals and oximes.



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275. Write reaction and conditions for the conversion of benzyl chloride to benzaldehyde.



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276. How 2-butanol can be obtained from ethanol?



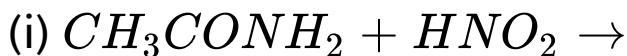
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277. Convert: Benzaldehyde to acetophenone



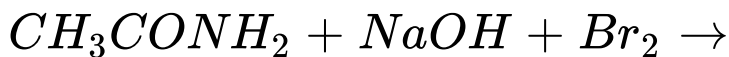
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278. Complete the following equations.



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279. Complete the following reaction:.



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280. How will you carry out the conversion of acetone to chloroform ?



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281. What is fehling.s solution? Write its use.



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282. The reagent with which both aldehyde and ketone react easily is :



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283. complete the following reactions.

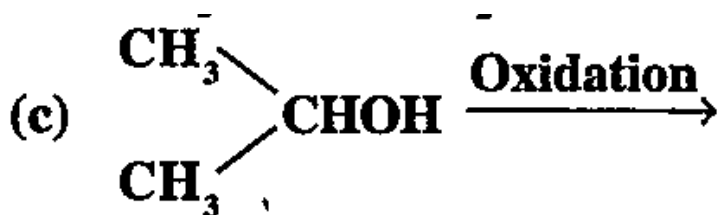


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285. Complete the following reaction



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286. Complete the following reaction:



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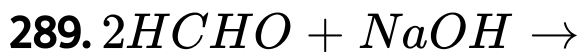


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288. Complete the following reaction



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Identify the products formed and name the reaction.



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290. How are aldehydes distinguished from ketones using Tollens and Fehling's reagent ?



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291. Distinguish between benzaldehyde and acetaldehyde.



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292. Distinguish between benzaldehyde and acetone.



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293. Why B.P. of aldehydes and ketones are lower than corresponding alcohols ?



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294. What is final product obtained when acetaldehyde reacts with ethyl magnesium bromide ?



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295. Write the reaction between nucleophiles and carbonyl group. why are ketones less reactive towards nucleophilic than the aldehydes ?



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296. How will you convert methanoic acid to ethanoic acid



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297. Write the common and IUPAC name of first five members of aldehyde.



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298. How acetone is prepared ?



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299. What happens when acetone reacts with:
2,4-DNP





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300. Discuss about clemmensen reduction.



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301. Wolff Kishner reduction is :



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302. Ketones are not forming bisulphite compounds. give some examples.



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303. Discuss about the nature of carbonyl group.



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304. How propanal and propanone may be distinguished?



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305. distinguish between ethyl alcohol and acetic acid?



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306. Write the structure and IUPAC names of following compounds

(a) Acetone (b) Ethyl methyl ketone (c) Methyl isopropyl ketone.



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307. Write short notes on: Cannizzaro's reaction.



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308. How will you convert methanol to acetone ?



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309. How ketone is prepared from acid chloride?



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310. What happens when acetone reacts with

(a) Sodium-bisulphite

(b) hydrazine

(c) Hydroxyl amine.



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311. What happens when

(a) C_2H_5OH is passed over hot red Cu at $300^\circ C$?



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312. What happens when acetone is mixed with bleaching powder ?



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313. What is percentage of acetic acid present in vinegar ?



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314. Acetaldehyde is the rearrangement product of:



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315. What is vinegar?



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316. Give examples of carbylamine reaction.



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317. Write some uses of carboxylic acid.



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318. Convert acetic acid into methane.



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319. Write down the reaction of formic acid with tollen's reagent.



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320. What happens when sodium propionate is heated with sodalime?



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321. What happens when

(i) calcium carbonate is heated?

(ii) acetic acid is treated with sodium carbonate solution ?





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322. Give two tests to distinguish between formic acid and acetic acid.



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323. How will you distinguish between aldehyde and carboxylic acid ?



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324. Give two methods of preparation of aldehyde/acetaldehyde.



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325. How does acetone react with (i) $NaHSO_3$
(ii) hydroxyl amine (iii) Tollen's reagent ?



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326. Give two methods Of preparation of acetone.



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327. How does acetone react with (i) HCN (ii) phenyl hydrazine (iii) I_2 and $NaOH$.



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328. Give three methods of preparation of monocarboxylic acid/acetic acid.



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329. How does monocarboxylic acid react with
(i) NH_3 , (ii) alcohol, (iii) sodalime, (iv) PCl_5 ?



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330. What different types of amines ?



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331. Give two methods of preparation of
primary amines from

(i) nitroalkane

(ii) alkyl cyanide



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332. Write notes on :

(a) Cannizzaro's reaction :



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333. What is Aldol condensation ?



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334. Write short notes on :

(a) Iodoform reaction



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335. Write brief note on Hoffmann's
bromamide reaction :



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336. How is it aldehyde can be prepared from the following ?

(i) Acetyl chloride (ii) Acetylene



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337. How does acetaldehyde react with (i) Fehlings soln. (ii) Tollen's reagent



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338. Give preparation of benzaldehyde from

(i) toluene (ii) benzyl alcohol



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339. Discuss cannizzaro's reaction and crossed cannizzaro's reaction.



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340. How can you prepare benzoic acid from

(i) Toulene (ii) Phenyl cyanide (iii) Grignard reagent



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341. Compare the acidic property of benzoic acid and acetic acid.



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342. An organic compound (A) with molecular formula C_8H_8O forms an orange precipitate with 2, 4 dinitrophenyl hydrazine and gives yellow precipitate on heating with iodine in presence of sodium hydroxide. It neither reduces Tollen's reagent nor Fehling solution and it also does not decolourise bromine water or Baeyer's reagent. On drastic oxidation with chromic acid it gives a carboxylic acid (B) having molecular formula $C_7H_6O_2$. Identify the compound (A) and (B) and explain in detail the reactions involved



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343. How is acetic acid prepared from methyl magnesium bromide? what happens when acetic acid is (i) reduced by lithium aluminium hydride and (iii) treated with ammonium hydroxide and the resulting product is heated at high temperature ?



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