CHEMISTRY

BOOKS - CENGAGE CHEMISTRY

ORGANIC COMPOUNDS CONTAINING OXYGEN ATOM

Mandatory Exercise

1. What is the dehydrogenation product of alcohols ?

View Text Solution

2. How is ethyl alcohol prepared in the laboratory ?

View Text Solution

3. How do you convert

(a) ethyl chloride to ethyl alcohol

(b) acetone to isopropyl alcohol

View Text Solution

4. The characteristic group of primary alcohols is

A. 

B. $-\overset{|}{\underset{|}{C}}-OH$

C. $-CH_2OH$

D. 

Answer: C

View Text Solution

5. The reaction $C_2H_5Cl + KOH \rightarrow C_2H_5OH + KCl$ is

A. nucleophilic addition

B. nucleophilic substitution

C. electrophilic addition

D. electrophilic substitution

Answer: B

View Text Solution

6. In the reduction $R-CHO+H_2 \rightarrow RCH_2OH$, the catalyst used is

A. Ni

B. Pd

C. Pt

D. any of these

Answer: D

View Text Solution

7. Ethyl alcohol is industrially prepared from ethene by

A. oxidation

B. reduction

C. fermentation

D. none of these

Answer: D

View Text Solution

8. Which one of the following substance cannot be used as a raw material for obtaining ethyl alcohol ?

A. Onion

B. Maize

C. Wheat

D. Potatoes

Answer: A

View Text Solution

9. Alcoholic fermentation is brought about by

A. CO_2

B. yeast

C. sodium bicarbonate

D. none of these

Answer: B

View Text Solution

10. Which one of the following gases is evolved during the fermentation ?

A. CO

B. CO_2

C. H_2

D. CH_4

Answer: B

View Text Solution

11. Conversion of sucrose into glucose and frutose is known as

A. inversion

B. inhibition

C. insertion

D. induction

Answer: A

View Text Solution

12. In the homologous series of monohydric alcohols, solubility in water decreases with the increase in molecular mass. This is due to

A. increase in the length of hydrocarbon part

B. increase in hydrogen bonding

C. decrease in hydrogen bonding

D. both (A) and (C)

Answer: D

View Text Solution

13. All alcohols are

A. soluble in water completely

B. insolunle in water

C. partially soluble in water

D. soluble in all organic solvents

Answer: C

View Text Solution

14. Which one of the following alcohols will have the highest boiling point ?

A. 2- butanol

B. 1- butanol

C. 2- methyl -2- propanol

D. none of these

Answer: B

View Text Solution

15. The boiling points of alcohols are much higher than hydrocarbons of comparable molecular masses because of

A. Dipole-dipole interaction

B. Intra molecular H- bonding

C. Inter molecular H-bonding

D. van der Waal's forces

Answer: C

View Text Solution

16. Ethyl alcohol is not known as

A. spirit of wine

B. ethanol

C. carbinol

D. methyl carbinol

Answer: C

View Text Solution

17. Butan - 2 - ol is

A. primary alcohol

B. secondary alcohol

C. tertiary alcohol

D. none

Answer: B

View Text Solution

18. Which of the following dehydrate easily ?

A. 3- methyl - 2 - butanol

B. Ethyl alcohol

C. 2- methyl propane - 2 -ol

D. 2- methyl butanol - 2

Answer: D

View Text Solution

19. Ethyl alcohol exhibits acidic character on reacting with :

A. Acetic acid

B. Sodium metal

C. Hydrogen iodide

D. Acidic potassium dichromate

Answer: B

View Text Solution

20. The reaction of C_2H_5OH with H_2SO_4 does not give :

A. Ethylene

B. Diethyl ether

C. Acetylene

D. Ethyl hydrogen sulphate

Answer: C

View Text Solution

21. The final product obtained by distilling ethyl alcohol with the excess of chlorine and Ca $(OH)^2$ is :

A. CH_3CHO

B. CCl_3CHO

C. $CHCl_3$

D. $(CH_3)_2O$

Answer: C

View Text Solution

22. Methyl alcohol (methanol), ethyl alcohol (ethanol) and acetone (propanone) were treated with iodine and sodium hydroxide solutions. Which substances will give iodoform test ?

A. Only ethyl alcohol

B. Only methyl alcohol and ethyl alcohol

C. Only ethyl alcohol and acetone

D. Only acetone

Answer: C

View Text Solution

23. The alcohol which does not give a stable compound on dehydration is :

A. Ethyl alcohol

B. Methyl alcohol

C. n- propyl alcohol

D. n- butyl alcohol

Answer: B

View Text Solution

24. The reagent used for the dehydration of an alcohol is :

A. Phosphorus pentachloride

B. Calcium chloride

C. Aluminium oxide

D. Sodium chloride

Answer: C

View Text Solution

25. Which of the following reacts first with Lucas reagent :

A. C_3H_7OH

B. $(CH_3)_2CHOH$

C. $(CH_3)_3COH$

D. C_6H_5OH

Answer: C

View Text Solution

26. With oxalic acid, glycerol at $260^{\circ} C$ gives:

A. Allyl alcohol

B. Glyceryl mono- oxalate

C. Formic acid

D. Glyceraldehyde

Answer: A

View Text Solution

27. Assertion : A triester of glycerol and palmitic acid on boiling with aqueous NaOH gives a solid cake having soapy touch.

Reason : Free glycerol is liberated which is a greasy solid.

A. Both assertion and reason are true statements and reason is the correct explanation of assertion

B. Both assertion and reason are true statements and reason is not the correct explanation of assertion

C. Assertion is true but reason is a false statement.

D. Both assertion and reason are false statement

Answer: C

View Text Solution

28. Which of the following reaction shows industrial method of preparation of CH_3OH :

A. $CO + H_2 \xrightarrow[300^\circ C]{Catalyst}$

B. $CH_3Cl + H_2O$

C. $CH_3NH_2 + HNO_2$

D. $CH_3Br + aq.\ KOH$

Answer: A

View Text Solution

29. The alcohol that produces turbidity immediately with $ZnCl_2 + conc.\ HCl$ at room temperature :

A. 1- hydroxybutane

B. 2- hydroxybutane

C. 2- hydroxy - 2 - methylpropane

D. 1- hydroxy - 2 - methylpropane

Answer: C

View Text Solution

30. Which of the following explains the viscous nature of glycerol :

A. Covalent bonds

B. Hydrogen bond

C. Vander Wall's forces

D. Ionic forces

Answer: B

View Text Solution

31. Which gas is eliminated in fermentation ?

A. O_2

B. CO_2

C. N_2

D. H_2

Answer: B

View Text Solution

32. Absolute alcohol is

A. $100\ \%$ pure ethanol

B. $95\ \%$ alcohol $+5\ \%\ H_2O$

C. Ethanol + water + phenol

D. $95\ \%$ ethanol $+5\ \%$ methanol

Answer: A

View Text Solution

33. The boiling point of glycerol is more than propanol because of

A. Hydrogen bonding

B. Hybridisation

C. Resonance

D. All the above

Answer: A

View Text Solution

34. Which of the following statement is not correct about alcohol ?

A. Alcohol is lighter than water

B. Alcohol evaporates quickly

C. Alcohol of less no. of carbon atoms is less soluble in water than alcohol of high no. of carbon atoms

D. All of these

Answer: C

View Text Solution

35. In the presence of a dilute base C_6H_5CHO and CH_3CHO react together to give a product . The product is :

A. $C_6H_5CH_3$

B. $C_6H_5CH_2CH_2OH$

C. $C_6H_5CH_2OH$

D. $C_6H_5CH=CHCHO$

Answer: B

View Text Solution

36. In the metal carbonyls of the general formula $M(CO)x$, where M= metal and $x=4$, then metals is bonded to :

A. Carbon and oxygen

B. Carbon

C. Oxygen

D. $C\equiv O$ triple bond

Answer: B

View Text Solution

37. The fgeneral order of reactivity of carbonyl compounds for nucleophilic addition reactions is :

A.

$$H_2C = O > RCHO > ArCHO > R_2C = O > Ar_2C = O$$

B.

$$ArCHO > Ar_2C = O > RCHO > R_2C = O > H_2C = O$$

C.

$$Ar_2C = O > R_2C = O > ArCHO > RCHO > H_2C = O$$

D.

$$H_2C = O > R_2C = O > Ar_2C = O > RCHO > ArCHO$$

Answer: A

View Text Solution

38. The suitable reagent for the reduction of ketones to hydrocarbons is :

A. $Zn - Hg / HCl$

B. HI

C. Red P

D. H_2SO_4

Answer: A

View Text Solution

39. Which of the following reagents distinguishes between aldehyde and ketone :

A. Fehling solution

B. H_2SO_4 solution

C. $NaHSO_3$

D. NH_3

Answer: A

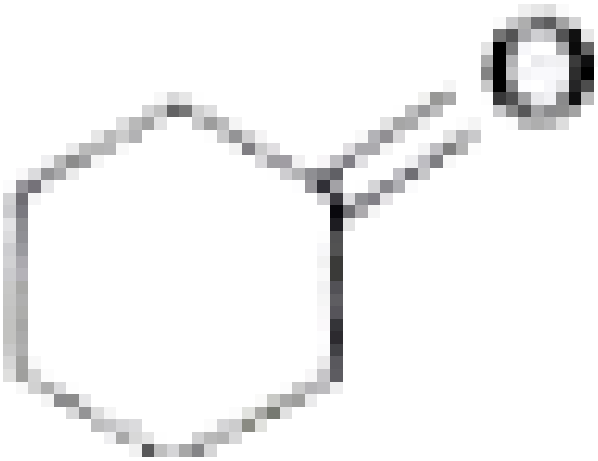
View Text Solution

40. Arrange the following in the decreasing order of boiling points :

2- methylpropan - 2- ol, butanol, 2- methylpropanol, butan - 2 - ol

View Text Solution

41. Identify the kinds of carbonyl group present in the following molecules.

(a) 

(b) $CH_3CH_2CH_2CHO$

(c) $CH_3 - \overset{\overset{CH_3}{|}}{C}H - CH_2COOCH_3$

(d) $CH_3 - \overset{\overset{CH_3}{|}}{C}H - CH_2 - COOCH_3$

View Text Solution

42. How do you convert

(a) Acetylene to acetaldehyde

(b) Calcium formate to formaldehyde

(c) Formaldehyde to methane

View Text Solution

43. Identify the compounds X and Y in each of the following sequences :

(a) $C_2H_5Br \xrightarrow{aq.KOH} X \xrightarrow{Cu/300^\circ C} Y + H_2$

(b) $C_2H_5OH \xrightarrow{conc.H_2SO_4/170^\circ C} X \xrightarrow{HBr} Y$

(c) $CH_3OH + Na \rightarrow X + Y$

View Text Solution

44. What happens when calcium acetate is dry distilled ?

View Text Solution

45. Write the structural formulae of the esters formed from

(a) Formic acid and methanol

(b) Acetic acid and 2- propanol

View Text Solution

46. How do you convert ethyl alcohol to ethyl acetate ?

View Text Solution

47. Acetone on reduction gives

A. CH_3COOH

B. CH_3CHO

C. C_2H_5OH

D. $(CH_3)_2CHOH$

Answer: D

View Text Solution

48. Sodium reacts readily with

A. $R-\underset{\underset{O}{||}}{C}-R$

B. $R-O-R$

C. $R-CHO$

D. RCH_2OH

Answer: D

View Text Solution

49. Acetone is easily oxidized with :

A. Tollen's reagent

B. Fehling solution

C. Acidic dichromate solution

D. Benedict's solution

Answer: C

View Text Solution

50. Which of the following does not give yellow precipitate with I_2 and NaOH

A. C_2H_5OH

B. CH_3CHO

C. CH_3COCH_3

D. HCHO

Answer: D

View Text Solution

51. Dry distillation of the mixture of calcium formate and calcium acetate gives :

A. Acetone

B. Acetaldehyde

C. Formaldehyde

D. Formic acid

Answer: B

View Text Solution

52. Reaction of acetaldehyde with HCN followed by hydrolysis gives a compound which shows :

A. Optical isomerism

B. Geometrical isomerism

C. Metamerism

D. Tautomerism

Answer: A

View Text Solution

53. Formaldehyde when treated with KOH gives methanol and potassium formate. The reaction is known as :

A. Perkin reaction

B. Claisen recation

C. Cannizzaro reaction

D. Knoevenagel reaction

Answer: C

View Text Solution

54. Which one of the following reactions is a method for the conversion of a ketone into a hydrocarbon ?

A. Aldol condensation

B. Reimer - Tiemann reaction

C. Cannizzaro reaction

D. Wolff- Kishner reduction

Answer: D

View Text Solution

55. Which of the following reagent reacts differently with $HCHO, CH_3CHO$ and CH_3COCH_3 :

A. HCN

B. NH_2NH_2

C. NH_2OH

D. NH_3

Answer: D

View Text Solution

56. $CH_3CH_2Cl \xrightarrow{NaCN} X \xrightarrow{Ni/H_2} Y \xrightarrow{\text{acetic-anhydride}} z$.

What would be Z in following reaction ?

A. $CH_3CH_2CH_2NHCOCH_3$

B. $CH_3CH_2CH_2NH_2$

C. $CH_3CH_2CH_2CONHCH_3$

D. $CH_3CH_2CH_2CONHCOCH_3$

Answer: A

View Text Solution

57. $CH_3CH_2COOH \xrightarrow[\text{Red p}]{Cl_2} A \xrightarrow{Alc.KOH} B$

The product B is

A. CH_3CH_2COCl

B. CH_3CH_2CHO

C. $CH_2 = CHCOOH$

D. $ClCH_2CH_2COOH$

Answer: C

View Text Solution

58. Which of the following is buffer - solution ?

A. CH_3COOH and CH_3COONa

B. HCl and NaOH

C. NaOH and H_2SO_4

D. Carbonic acid and acetic acid

Answer: A

View Text Solution

59. When CH_3COOH reacts with $CH_3 - Mg - X$:

A. CH_3COX is formed

B. Hydrocarbon is formed

C. Acetone is formed

D. Alcohol is formed

Answer: B

View Text Solution

60. Most acidic is :

A. CH_3COOH

B. $C_6H_5CH_2COOH$

C. HCOOH

D. CH_3CH_2COOH

Answer: C

View Text Solution

61. Laboratory method for the preparation of acetyl chloride is :

A. $CH_3COOH + SOCl_2 \rightarrow CH_3COCl$

B. $CH_3COOH + PCl_3 \rightarrow CH_3COCl$

C. $CH_3COONa + PCl_3 \rightarrow CH_3COCl$

D. All of the above

Answer: A

View Text Solution

62. Which of the following acids has the smallest dissociation constant ?

A. $CH_3CHFCOOH$

B. FCH_2CH_2COOH

C. $BrCH_2CH_2COOH$

D. $CH_3CHBrCOOH$

Answer: C

View Text Solution

63. $CH_3COOH \xrightarrow[P_2O_5]{\Delta} X$, Identify X :

A. CH_3COCH_3

B. CH_3CHO

C. $(CH_3CO)_2O$

D. CH_4

Answer: C

View Text Solution

64. In a set of the given reactions, acetic acid yielded a product C

$$CH_3COOH + PCl_5 \rightarrow A \xrightarrow[\text{anh. } AlCl_3]{C_6H_5} B \xrightarrow[er]{C_2H_5MgBr} C .$$

Product C would be :

A. $CH_3 - \overset{\overset{C_2H_5}{|}}{C}(OH)C_6H_5$

B. $CH_3CH(OH)C_2H_5$

C. $CH_3COC_6H_5$

D. $CH_3CH(OH)C_6H_5$

Answer: A

View Text Solution

65. In the anion $HCOO^-$ the two carbon- oxygen bonds are found to be of equal length. What is the reason for it :

A. Electronic orbitals of carbon atom are hybridized.

B. The $C = O$ bond is weaker than the $C - O$ bond.

C. The anion $HCOO^-$ has two resonating structures.

D. The anion is obtained by removal of a proton from the acid molecule.

Answer: C

View Text Solution

66. On mixing ethyl acetate with aqueous sodium chloride, the composition of the resultant solution is :

A. $CH_3Cl + C_2H_5COONa$

B. $CH_3COONa + C_2H_5OH$

C. $CH_3COCl + C_2H_5OH + NaOH$

D. $CH_3COOC_2H_5 + NaCl$

Answer: B

View Text Solution

67. Acetyl bromide reacts with excess of CH_3MgI followed by treatment with a saturated solution of NH_4Cl gives :

A. acetyl iodide

B. acetamide

C. 2 - methyl - 2 - propanol

D. acetone

Answer: C

View Text Solution

68. When $CH_2 = CH - COOH$ is reduced with $LiA1H_4$, the compound obtained will be :

A. $CH_3 - CH_2 - COOH$

B. $CH_2 = CH - CH_2OH$

C. $CH_3 - CH_2 - CH_2OH$

D. $CH_3 - CH_2 - CHO$

Answer: B

View Text Solution

69. The ortho/para directing group among the following is :

A. COOH

B. CN

C. $COCH_3$

D. $NHCOCH_3$

Answer: D

View Text Solution

70. Among the following acids which has the lowest pKa value ?

A. $(CH_3)_2CH - COOH$

B. CH_3CH_2COOH

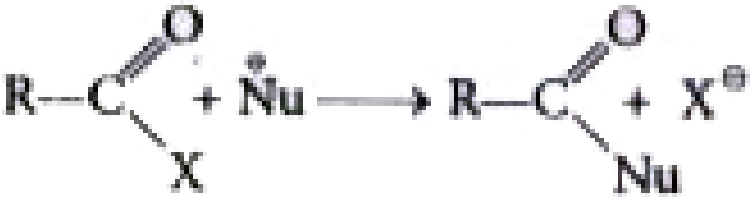
C. CH_3COOH

D. HCOOH

Answer: D

View Text Solution

71. The reaction



is fastest when X is

A. OC_2H_5

B. OCOR

C. Cl

D. NH_2

Answer: C

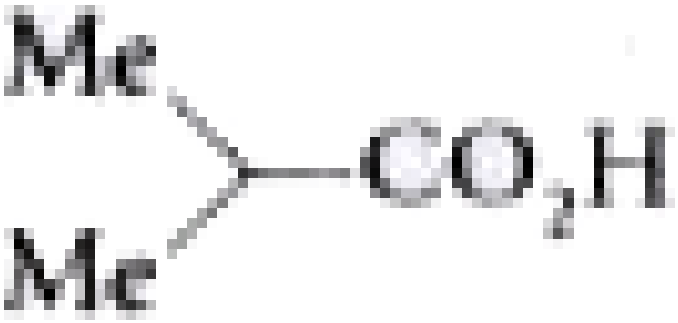
View Text Solution

72. The correct order of increasing acid strength of the compounds is

(a) CH_3CO_2H

(b) $MeOCH_2CO_2H$

(c) CF_3CO_2H



(d)

A. $d < a < c < b$

B. $d < a < b < c$

C. $a < d < c < b$

D. $b < d < a < c$

Answer: B

View Text Solution

73. Formic acid differs from other carboxylic acids in its structure. Give reason.

View Text Solution

74. Name the compound obtained when propanoic acid is decarboxylated ?

View Text Solution

75. How do you convert

(a) acetic acid to acetyl chloride

(b) acetone to acetic acid

(c) methyl formate to formic acid

View Text Solution

76. Acetic acid is obtained from ethyl alcohol by

A. oxidation

B. reduction

C. fermentation

D. dehydration

Answer: A

View Text Solution

77. Which one of the following is not a derivative of organic acids ?

A. Esters

B. Anhydrides

C. Amines

D. Amides

Answer: C

View Text Solution

78. The compound $X(C_3H_6O)$ on oxidation gives a compound $Y(C_3H_6O_2)$. The compound Y is

A. propanoic acid

B. butyric acid

C. acetic acid

D. propenoic acid

Answer: A

View Text Solution

79. Which one of the following acid is solid under normal conditions ?

A. Butyric acid

B. Formic acid

C. Acetic acid

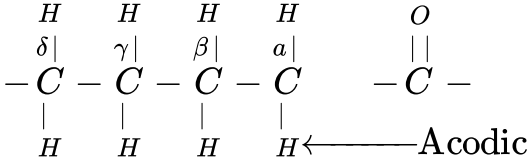
D. none of these

Answer: D

View Text Solution

Consolidated Exercise Comprehension

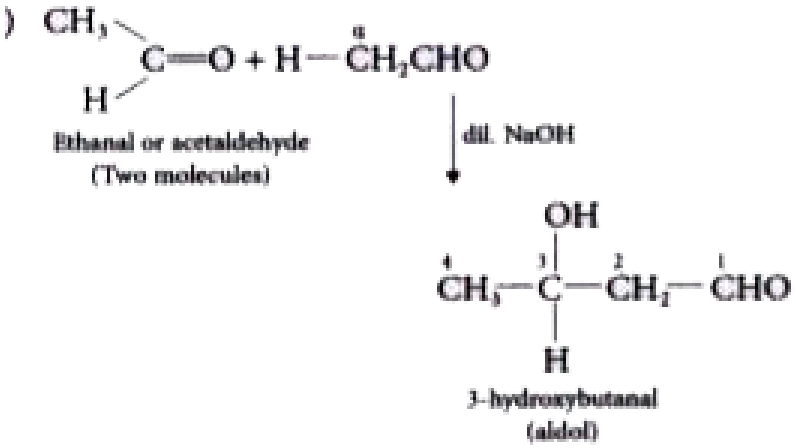
1. An important reaction based on the acidity of a hydrogens of aldehydes or ketones is aldol condensation.



In this reaction two molecules of an aldehyde or ketone condense in presence of a dilute alkali (dil. NaOH, etc) to form a β - hydroxyaldehyde or a β hydroxyketone respectively. These β - hydroxyaldehydes or ketones are collectively called as aldols and the reaction is called aldol condensation. The name aldol is derived from the names of two functional groups, aldehyde and

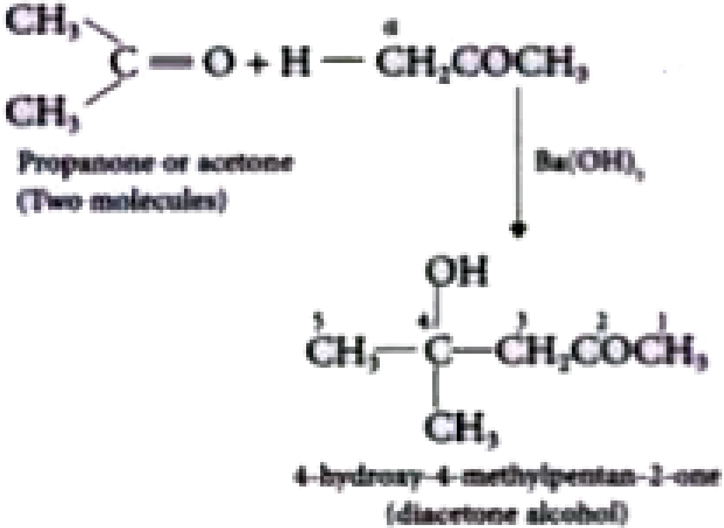
alcohol, present in the product of condensation of two molecules of an aldehyde. Although ketones give ketols yet the name aldol is used for the condensation products of two molecules of ketones due to their similarity with those of aldehydes.

For example,



(i)

(ii)



Acetaldehyde undergoes aldol condensation but formaldehyde undergoes aldol condensation but formaldehyde does not. Give reasons.

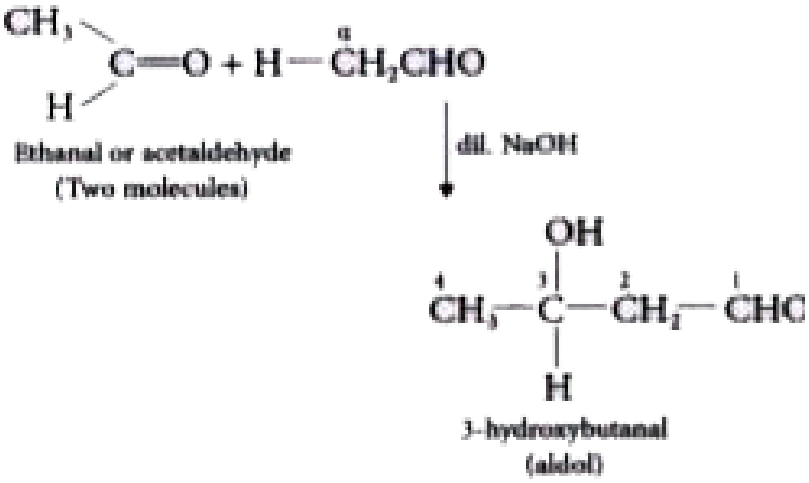
View Text Solution

2. An important reaction based on the acidity of a hydrogens of aldehydes or ketones is aldol condensation.

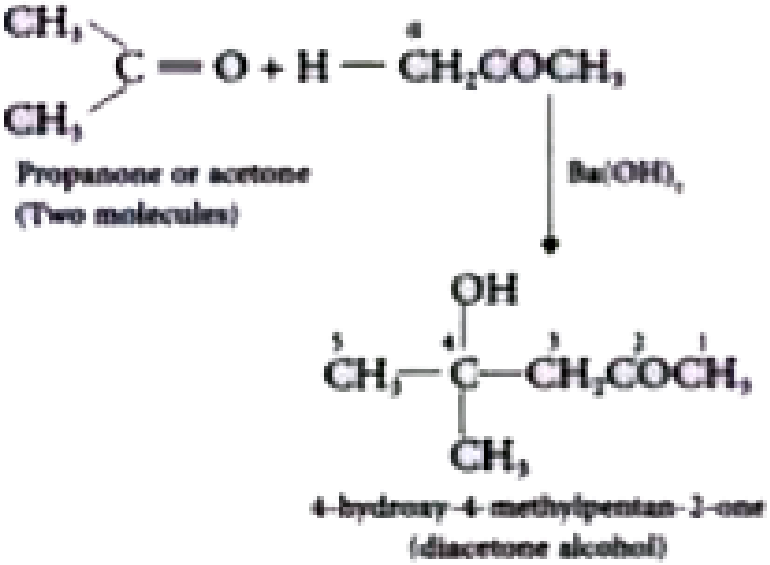
$$\begin{array}{ccccccccc} & H & & H & & H & & H & & O \\ & \delta| & & \gamma| & & \beta| & & a| & & || \\ - & C & - & C & - & C & - & C & & -C- \\ & | & & | & & | & & | & & \\ & H & & H & & H & & H \longleftarrow & \text{Acodic} & \end{array}$$

In this reaction two molecules of an aldehyde or ketone condense in presence of a dilute alkali (dil. NaOH, etc) to form a β - hydroxyaldehyde or a β hydroxyketone respectively. These β - hydroxyaldehydes or ketones are collectively called as aldols and the reaction is called aldol condensation. The name aldol is derived from the names of two functional groups, aldehyde and alcohol, present in the product of condensation of two molecules of an aldehyde. Although ketones give ketols yet the name aldol is used for the condensation products of two molecules of ketones due to their similarity with those of aldehydes.

For example,



(i)



(ii)

Which of the following compounds will show aldol condensation

?

(a) methanal

(b) 2- methylpentanal

(c) propanone

(d) cyclohexanone

(e) 1- phenylpropanone

(f) butan - 1 - o1

(g) 2, 2 - dimethylbutanal

View Text Solution

3. Match the following :

Column A	Column B	Column C
(1) Decarboxylation	(i) Oxidising agent	(a) Alcohols
(2) Tollen's reagent	(ii) Heating of alkyl halide with sodium alkoxide	(b) Formation of amides
(3) Williamson's synthesis	(iii) Sodalime	(c) Removal of CO_2
(4) Reduction of aldehydes and ketones	(iv) Reaction with ammonia	(d) Ammoniacal $AgNO_3$ solution
(5) Carboxylic acids	(v) $LiAlH_4$	(e) Formation of ether

View Text Solution

Consolidated Exercise Mcq

1. Which of the following statement (s) is/ are true for alcohols ?

A. Boiling point decreases with increasing molecular mass.

B. Alcohols are soluble in water due to hydrogen bonding.

C. Straight chain alcohols have higher boiling points than the corresponding branched alcohols

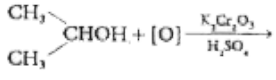
D. The order of boiling point : secondary alcohol $>$ primary alcohol $>$ tertiary alcohol

Answer: A::B::C::D

View Text Solution

2. Methanal can be obtained as a product of which of the following reaction (s) ?

A. $CH_3OH + [O] \xrightarrow[H_2SO_4]{K_2Cr_2O_7}$

B. 

C. $CH_3COCH_3 + NaHSO_3 \rightarrow$

D. $CH_3COCH_3 + NaHSO_3 \rightarrow$

Answer: A::C::D

View Text Solution

3. Carboxylic acids can be obtained from :

A. nitriles

B. esters

C. alcohols

D. alkanes

Answer: A::B::C::D

View Text Solution

4. Acetic acid reacts with

A. NH_3

B. alcohol

C. $NaHCO_3$

D. NaOH

Answer: A::B::C::D

View Text Solution

Challenging Exercise

1. How do you carryout the following conversions ?

(a) n- propyl alcohol from ethene

(b) t- butyl alcohol from acetone

View Text Solution

2. Identify the compounds X and Y in each of the following sequences :

(a) $CH_3CHO \xrightarrow{LiAlH_4} X \xrightarrow{NaBr / H_2SO_4} Y$

(b) $CH_3OH \xrightarrow{PBr_3} X \xrightarrow{Mg / H_2O} Y$

View Text Solution

3. Identify the reagents A,B,C and D in the following conversion

$HCHO \xrightarrow{A} CH_3OH \xrightarrow{B} CH_3Cl \xrightarrow{C} CH_3CN \xrightarrow{D} CH_3COOH$

View Text Solution

4. An organic compound A $(C_4H_{10}O)$ reacts with HI giving a compound B (C_4H_9I) which on reduction gives n-butane. Oxidation of compound A gives C (C_4H_8O) and then an acid D $(C_4H_8O_2)$. Deduce the structure of A,B,C and D.

View Text Solution

5. What product, in addition to water, is produced by this reaction ?

$CH_3OH + C_6H_5COOH \rightarrow$

View Text Solution

Olympiad And Ntse Level Exercises

1. Primary and secondary alcohols on action of reduced copper give

A. Aldehydes and ketones respectively

B. Ketones and aldehydes respectively

C. Only aldehydes

D. Only ketones

Answer: A

View Text Solution

2. Ethyl alcohol on oxidation with $K_2Cr_2O_7$ gives

A. Acetic acid

B. Acetaldehyde

C. Formaldehyde

D. Formic acid

Answer: A

View Text Solution

3. In the following series of chemical reactions, identify Z

$$C_3H_7OH \xrightarrow[160-180^\circ C]{Conc.\,H_2SO_4} X \xrightarrow{Br_2} Y \xrightarrow[Alc.\,KOH]{\text{Excess of}} Z$$

A. $CH_3 - \underset{|}{\underset{NH_2}{CH}} - \underset{|}{\underset{NH_2}{CH_2}}$

B. $CH_3 - \underset{|}{\underset{OH}{CH}} - \underset{|}{\underset{OH}{CH_2}}$

C. $CH_3 - \underset{|}{\underset{OH}{C}} = CH_2$

D. $CH_3C \equiv CH$

Answer: D

View Text Solution

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

A. $CH_2 = CH - CH_3$

B. $CH_2 = CH - CH_2OH$

C. $CH_2 = CH - CHO$

D. $CH_2 = C = CH_2$

Answer: C

View Text Solution

5. The enol form of acetone, after treatment with D_2O, gives

A. $CH_3 - \overset{\overset{OD}{|}}{C} = CH_2$

B. $CH_3 - \overset{\overset{O}{||}}{C} - CD_3$

C. $CH_3 = \overset{\overset{OD}{|}}{C} - CH_2D$

D. $CD_2 = \overset{\overset{OD}{|}}{C} - CD$

Answer: B

View Text Solution

6. Among the given compounds, the most susceptible to nucleophilic attack at the carbonyl group is

A. MeCOCl

B. MeCHO

C. MeCOOMe

D. MeCOOCOMe

Answer: A

View Text Solution

7. Acetic acid reacts with PCl_5 to form

A. CH_3COCl

B. $CHCl_2COOH$

C. $CH_2ClCOOH$

D. CH_3COOCl

Answer: A

View Text Solution

8. $CH_3COOC_2H_5$ with excess of C_2H_5MgBr and hydrolysis gives

A. $CH_3 - \underset{\underset{C_2H_5}{|}}{\overset{C_2H_5}{C}} = O$

B. $CH_3 - \underset{\underset{C_2H_5}{|}}{\overset{C_2H_5}{C}} - OH$

C. $CH_3 - \underset{\underset{C_2H_5}{|}}{\overset{CH_3}{C}} = O$

D. $CH_3 - \underset{\underset{CH_3}{|}}{\overset{C_2H_5}{C}} = O$

Answer: B

View Text Solution

9. the most reactive compound towards formation of cyanohydrin on treatment with KCN followed by acidification is

A. Benzaldehyde

B. p- Nitrobenzaldehyde

C. Phenyl acetaldehyde

D. p- Hydroxybenzaldehyde

Answer: B

View Text Solution

10. The synthesis of crotonaldehyde from acetaldehyde is an example of ..... Reaction

A. nucleophilic addition

B. elimination

C. electrophilic addition

D. nuclephilic addition- elimination

Answer: D

View Text Solution