



CHEMISTRY

BOOKS - SHARAM PUBLICATION

ALDEHYDES, KETONES AND CARBOXYLIC ACIDS

Exercise

1. Which of the following is oxidised to the corresponding carbonyl compound ?

- A. 2 - hydroxy propane
- B. 0 - nitrophenol
- C. phenol
- D. 2 - methyl -2 hydroxy propane

Answer:

 [Watch Video Solution](#)

2. The IUPAC name of $CH_3COCH(CH_3)_2$

- A. 3- methyl -2-butanone
- B. Isopropyl methyl ketone
- C. 2- methyl-3 -butanone
- D. 4- methyl isopropyl ketone

Answer:

 [Watch Video Solution](#)

3. Which of the following with Molecular Formula C_5H_{10} yields acetone on ozonolysis ?

A. 3- methyl- 1- butene

B. Cyclopentane

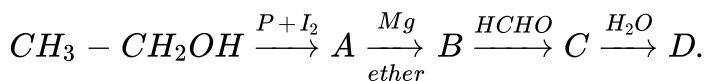
C. 2- methyl-1- butene

D. 2- methyl-2- butene.

Answer:

 [Watch Video Solution](#)

4. In the following sequence of reactions the compound D is



A. n- propyl alcohol

B. propanal

C. butanal

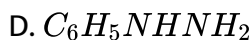
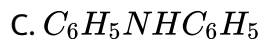
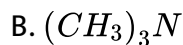
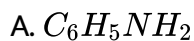
D. n- butyl alcohol

Answer:



Watch Video Solution

5. Among the following compounds, which will react with acetone to give a product containing $C = N - ?$



Answer:



Watch Video Solution

6. Aldehydes and ketones can be reduced to alkanes by

A. Clemmensen 's reduction

B. Wolff- Kishnov reduction

C. Meerwein- Ponderf Verly reduction

D. Bouveault Blank reductions

Answer:

 [Watch Video Solution](#)

7. Vinyl alcohol and acetaldehyde are

A. functional isomer

B. metamer

C. tautomer

D. Positional isomer

Answer:

 [Watch Video Solution](#)

8. Which of the following compounds will give iodoform test:

- A. Butan -1- al
- B. Butane -2- one
- C. Ethanol
- D. Isopropyl alcohol

Answer:

 [Watch Video Solution](#)

9. Which of the following gives Cannizzaro 's reaction ?

- A. Acetone
- B. Acetic acid
- C. formal dehyde
- D. Acetal dehyde

Answer:



[Watch Video Solution](#)

10. Which of the following compound will not react with ammoniacal $AgNO_3$ solution ?

- A. Acetylene
- B. Acetone
- C. Acetaldehyde
- D. formic acid

Answer:



[Watch Video Solution](#)

11. Cannizzarro 's reaction is not given by

- A. formaldehyde
- B. acetaldehyde
- C. trichloroacetaldehyde
- D. benzaldehyde

Answer:

 [Watch Video Solution](#)

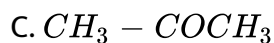
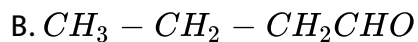
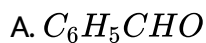
12. Aldehydes reacts with hydroxylamine to produce -

- A. oxime
- B. alcohol
- C. hydrazone
- D. Phenyl hydrazone

Answer:

 [Watch Video Solution](#)

13. Which of the following on treatment with 50% aqueous $NaOH$ yields the corresponding alcohol and acid ?



Answer:

 [Watch Video Solution](#)

14. Propyne $\xrightarrow[H_2SO_4]{HgSO_4}$ A, the compound A is

A. 2- Propanal

B. Propane

C. Propene

D. propanone

Answer:

 [Watch Video Solution](#)

15. The reagent used for the separation of acetaldehyde and acetophenone is

A. NaHSO_3

B. $\text{C}_6\text{H}_5\text{NHNH}_2$

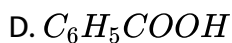
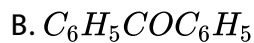
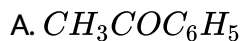
C. NH_2OH

D. NaOH / I_2

Answer:

 [Watch Video Solution](#)

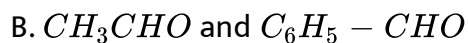
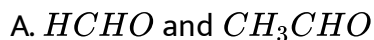
16. Which of the following will give iodoform test ?



Answer:

 [Watch Video Solution](#)

17. Among $HCHO$, CH_3CHO , and C_6H_5CHO which will under go Cannizzarro 's reaction ?



D. all of these

Answer:

 [Watch Video Solution](#)

18. The catalyst used for Rosenmund 's reduction is

A. $Zn - Hg$

B. $Pd - BaSO_4$

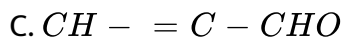
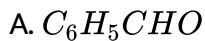
C. $KMnO_4$

D. Na in ethanol

Answer:

 [Watch Video Solution](#)

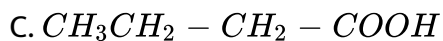
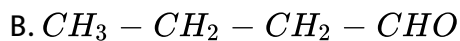
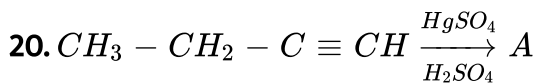
19. Which of the following compounds will undergo self aldol condensation with cold dil $NaOH$?



Answer:



Watch Video Solution

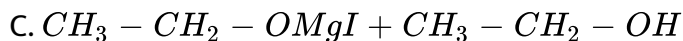
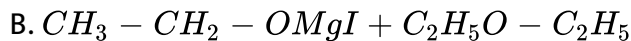
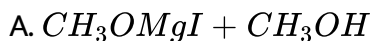


D. None of these

Answer:

 [Watch Video Solution](#)

21. In the reaction $CH_2O + CH_3MgI \rightarrow A \xrightarrow{H_2O} B + Mg(OH)_2$. What are A and B ?



Answer:

 [Watch Video Solution](#)

22. Which of the following gives an aldehyde on dry distillation ?

- A. Calcium formate + Calcium acetate
- B. Calcium acetate + Calcium benzoate
- C. Calcium acetate
- D. Calcium benzoate

Answer:

 [Watch Video Solution](#)

23. The compound which is not formed during the dry distillation of a mixture of calcium formate and calcium acetate is

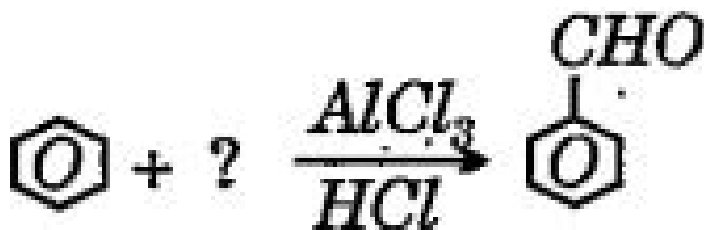
- A. methanal
- B. propanal
- C. propanone

D. ethanal

Answer:

 Watch Video Solution

24. Identify the reactant -



A. H_2O

B. HCHO

C. CO

D. CH_3CHO

Answer:



[Watch Video Solution](#)

25. 3 - pentanol on reaction with aluminium tertiary butoxide in the presence of acetone gives.

- A. 3 - Pentanal
- B. 2- pentanal
- C. 3- pentanone
- D. 2- pentanone

Answer:



[Watch Video Solution](#)

26. Silver mirror test is given by which one of the following compounds ?

- A. Acetaldehyde
- B. Acetone

C. formaldehyde

D. benzophenone

Answer:

 [Watch Video Solution](#)

27. Trichloroacetaldehyde was subjected to Cannizzaro 's reaction. The mixture of the products contains sodium trichloro acetate ion and another compound. The other compound is

A. 2,2,2 - trichloro ethanol

B. trichloro methanol

C. 2,2,2 - trichloro propanol

D. chloroform

Answer:

 [Watch Video Solution](#)

28. $CH_3COOH \xrightarrow{LiAlH_4} X \xrightarrow[300^\circ C]{Cu} Y \xrightarrow[NaOH]{dilute} Z$. In the above reaction Z is

A. butanol

B. aldol

C. Ketol

D. Acetal

Answer:

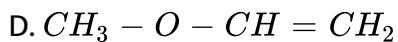
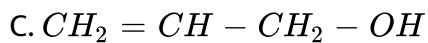


[Watch Video Solution](#)

29. An organic compound of molecular formula C_3H_6O did not give a silver mirror with Tollen 's reagent but gave an oxime with hydroxyl amine, it may be

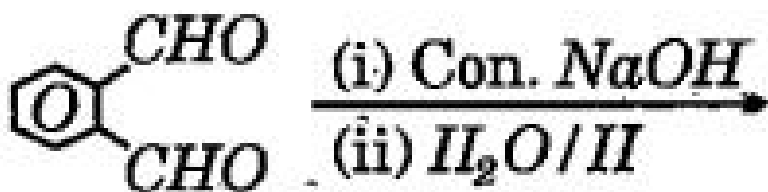
A. $CH_3 - CO - CH_3$

B. $C_2H_5 - CHO$

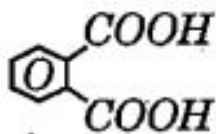


Answer:

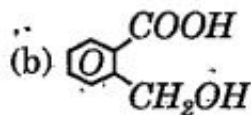
 Watch Video Solution



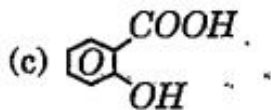
30.



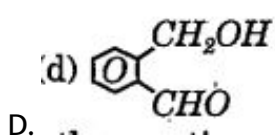
A.



B.



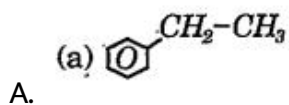
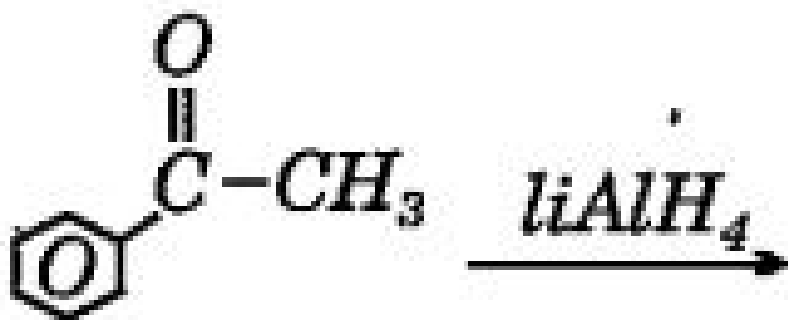
C.

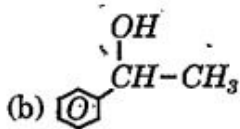


Answer:

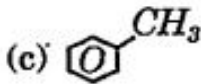
 [Watch Video Solution](#)

31. The product formed in the reaction





B.



C.

D. None of these

Answer:

 [Watch Video Solution](#)

32. What is the reagent used to distinguish acetaldehyde from acetone ?

 [Watch Video Solution](#)

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

 [Watch Video Solution](#)

34. What is the function of S or quinoline in inter catalyst $Pd - BaSO_4$ used in Rosenmund's reduction ?

 [Watch Video Solution](#)

35. Give a chemical test to distinguish between acetophenone ($CH_3 - COC_6H_5$) and ($C_6H_5 - COC_6H_5$) benzophenone.

 [Watch Video Solution](#)

36. How can you distinguish CH_3CHO from $CH_3 - CH_2 - CHO$?

 [Watch Video Solution](#)

37. Why Trimethyl acetaldehyde does not give aldol condensation ?

 [Watch Video Solution](#)

38. What organic product is obtained when ethanol is heated with KOH and I_2

 [Watch Video Solution](#)

39. What is Tollens' reagent ?

 [Watch Video Solution](#)

40. Name the functional isomer of propanone.

 [Watch Video Solution](#)

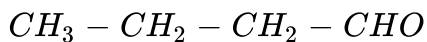
41. What is Fehling's solution ?

 [Watch Video Solution](#)

42. Between acetaldehyde and acetone which one is a reducing agent ?

 [Watch Video Solution](#)

43. What is the IUPAC name of the compound ?



 [Watch Video Solution](#)

44. What is Baeyer's reagent ?

 [Watch Video Solution](#)

45. What products are obtained when calcium salt of formic acid is distilled ?

 [Watch Video Solution](#)

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

 [Watch Video Solution](#)

47. Name the products formed when formaldehyde reacts with 50% $NaOH$ solution.

 [Watch Video Solution](#)

48. Which of the these responds to Iodoform test ?

A. Butanol

B. Butanal

C. Butan-2-ol

D. 3-Pentanone

Answer:

 [Watch Video Solution](#)

 Watch Video Solution

49. What is formed when acetyl chloride is reduced with hydrogen in presence of $Pd - BaSO_4$?

 Watch Video Solution

50. Reduction of $-\overset{\overset{|}{O}}{C} = O$ group of aldehyde to $-CH_2 -$ group can be done by —

 Watch Video Solution

51. Which aldehyde responds to Iodoform test ?

 Watch Video Solution

52. Ethyl alcohol gives iodoform test ?

 Watch Video Solution

 Watch Video Solution

53. What type of aldehydes exhibit aldol reaction ?

 Watch Video Solution

54. Which type of aldehydes give Cannizzaro 's reaction ?

 Watch Video Solution

55. Fill in the blanks : Condensation of phenol with formaldehyde produces

 Watch Video Solution

56. Toluene on oxidation with CrO_2Cl_2 gives _____ and the reaction is called _____

 Watch Video Solution

Watch Video Solution

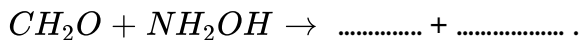
57. Fill in the blanks : Sodium Potassium tartarate has the commercial name

 Watch Video Solution

58. Fill in the blanks : Acetaldehyde reacts with Grignards reagent to givealcohol.

 Watch Video Solution

59. Fill in the blanks : Complete the following reactions and give the name of the product.



 Watch Video Solution

60. Fill in the blanks : $CH_3CHO + NH_2OH \rightarrow \dots\dots\dots + \dots\dots\dots$.

 [Watch Video Solution](#)

61. What happens when formaldehyde reacts with ammonia ?

 [Watch Video Solution](#)

62. Calcium acetate on heating gives -

 [Watch Video Solution](#)

63. 40% of aqueous solution of formaldehyde is called ____.

 [Watch Video Solution](#)

64. Fill in the blanks : Urotropin is formed by the reaction of With

 [Watch Video Solution](#)

65. What happens when a mixture of calcium acetate and calcium formate is dry distilled?

 [Watch Video Solution](#)

66. Aldehydes on treatment with Fehling's solution give a precipitate of—

 [Watch Video Solution](#)

67. What happens when acetaldehyde reacts with $NH_2 - NH_2$ followed by heating with KOH solution ?

 [Watch Video Solution](#)

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

 [Watch Video Solution](#)

69. Complete the following reactions. $2CH_3CHO \xrightarrow{NaOH}$

 [Watch Video Solution](#)

70. Give the reaction of dry distillation of calcium formate with equation.

 [Watch Video Solution](#)

71. What happens when formaldehyde reacts with concentrated $NaOH$ solution?

 [Watch Video Solution](#)

72. What happens when formaldehyde reacts with ammonia ?

 [Watch Video Solution](#)

73. Calcium acetate $\xrightarrow{\Delta}$ (A) $\xrightarrow{I_2 / KOH}$ (B) yellow ppt. Identify the products A and B. Name the reaction in Step II.

 [Watch Video Solution](#)

74. How can acetylene be converted to acetaldehyde ?

 [Watch Video Solution](#)

75. How can a carboxylic acid be converted to an aldehyde in two steps?

 [Watch Video Solution](#)

76. What is Tollens' reagent ?

 [Watch Video Solution](#)

77. Write with equation what happens when acetone reacts with I_2 in presence of $NaOH$.

 [Watch Video Solution](#)

78. What happens when acetaldehyde reacts with iodine in $NaOH$ solution ? Give equation.

 [Watch Video Solution](#)

79. How would you get oxime from acetaldehyde ? Give equation ?

 [Watch Video Solution](#)

80. What happens when acetaldehyde reacts with HCN ?

 [Watch Video Solution](#)

81. How can you get CH_3CHO from CH_3MgI ?

 [Watch Video Solution](#)

82. How can you get acetone from CH_3MgI ?

 [Watch Video Solution](#)

83. What happens when formaldehyde reacts with HCN ?

 [Watch Video Solution](#)

84. What happens when acetaldehyde reacts with Fehling's solution ?

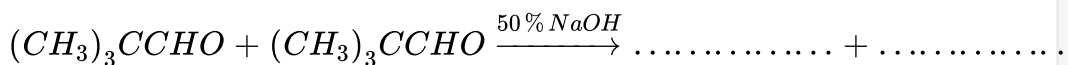


 [Watch Video Solution](#)

85. What happens when acetone reacts with : HCN

 [Watch Video Solution](#)

86. Complete and name the reaction -



 [Watch Video Solution](#)

87. What is Rosenmund 's reduction ? Give equation and also write the name of product.

 [Watch Video Solution](#)

88. How does acetaldehyde react with Tollen's reagent

 [Watch Video Solution](#)

89. Describe one chemical method to distinguish between formaldehyde and acetone.

 [Watch Video Solution](#)

90. 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.

 [Watch Video Solution](#)

91. How can you distinguish an aldehyde from ketone ?

 [Watch Video Solution](#)

92. Write the mechanism of iodoform reaction.

 [Watch Video Solution](#)

93. Give a chemical test to distinguish between methanol and ethanol.

 [Watch Video Solution](#)

94. How will you distinguish between Propane -1-ol and propanone ?

 [Watch Video Solution](#)

95. Give a chemical test to distinguish between methyl alcohol and phenol.

 [Watch Video Solution](#)

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

 [Watch Video Solution](#)

97. How is benzaldehyde distinguished from acetaldehyde ?

 [Watch Video Solution](#)

98. Give a chemical test to distinguish between benzaldehyde and acetophenone.

 [Watch Video Solution](#)

99. How will distinguish between $HCHO$ and CH_3CHO ?

 [Watch Video Solution](#)

100. Give two methods Of preparation of acetone.

 [Watch Video Solution](#)

101. Give two methods of preparation of acetone. How does it react with NH_2OH

 [Watch Video Solution](#)

102. Give two methods of preparation of acetone. How does it react with Hydrazine

 [Watch Video Solution](#)

103. How is acetaldehyde prepared from acetylchloride?

 [Watch Video Solution](#)

104. How can acetaldehyde be prepared from acetyl chloride and acetylene?

 [Watch Video Solution](#)

105. What happens when acetone reacts with: Phenyl hydrazine

 [Watch Video Solution](#)

106. How does acetaldehyde react with Tollen's reagent

 [Watch Video Solution](#)

107. What is formalin ?

 [Watch Video Solution](#)

108. Explain with equation how aldehydes can be prepared from

Acid chloride

 [Watch Video Solution](#)

109. Explain with equation how aldehydes can be prepared from

Calcium salt of organic acid.

 [Watch Video Solution](#)

110. What happens when acetaldehyde reacts with

I_2 in presence of $NaOH$

 [Watch Video Solution](#)

111. What happens when acetaldehyde reacts with

$NaHSO_3$



 [Watch Video Solution](#)

112. What happens when acetone reacts with the following substances ?

Sodium bisulphite

 [Watch Video Solution](#)

113. What happens when acetone reacts with the following substances ?

Phenylhydrazine

 [Watch Video Solution](#)

114. What happens when acetone reacts with : NH_2OH

 [Watch Video Solution](#)

115. Write short notes on: Aldol condensation reaction.



[Watch Video Solution](#)

116. Write short note on Iodoform reaction.



[Watch Video Solution](#)