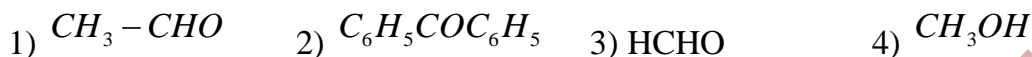


Aldehydes, Ketones and Carboxylic Acids

1. Which one of the following gives yellow precipitate with iodine and NaOH solution? (EAMCET-2010)



2. What are X and Y in the following reaction sequence?



- 1) C_2H_5Cl, CH_3CHO 2) CH_3CHO, CH_3CO_2H
 3) CH_3CHO, CCl_3CHO 4) C_2H_5Cl, CCl_3CHO

3. Acetone on addition to methyl magnesium bromide forms a complex, which on decomposition with acid gives X and $Mg(OH)Br$. Which one of the following is X?

- 1) CH_3OH 2) $(CH_3)_3COH$
 3) $(CH_3)_2CHOH$ 4) CH_3CH_2OH (EAMCET-2008)

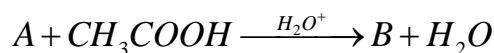
4. Identify A and B in the following reaction



A B (EAMCET-2008)

- 1) HI + red P $LiAlH_4$
 2) Ni/Δ $LiAlH_4$
 3) $LiAlH_4$ HI + red P
 4) Pb - $BaSO_4$ Zn + HCl

5. $CH_3COOH \xrightarrow{LiAlH_4} A$



In the above reactions 'A' and 'B' respectively, are (EAMCET-2007)

- 1) $\text{CH}_3\text{COOC}_2\text{H}_5$, $\text{C}_2\text{H}_5\text{OH}$ 2) CH_3CHO , $\text{C}_2\text{H}_5\text{OH}$
3) $\text{C}_2\text{H}_5\text{OH}$, CH_3CHO 4) $\text{C}_2\text{H}_5\text{OH}$, $\text{CH}_3\text{COOC}_2\text{H}_5$

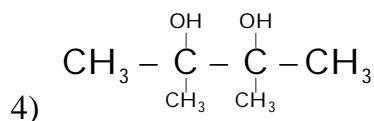
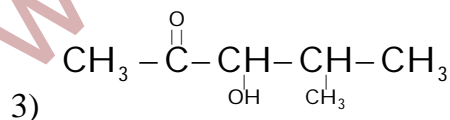
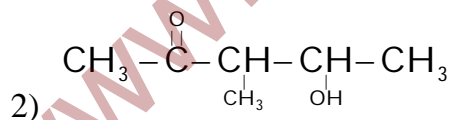
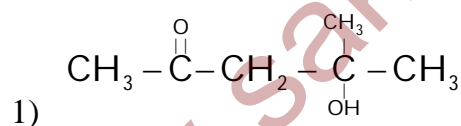
6. An organic compound X on treatment with pyridium dichromate in dichloromethane gives compound Y. Compound Y reacts with and alkali to form iodoform. The compound X is

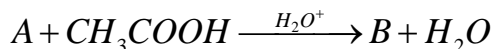
- 1) $\text{C}_2\text{H}_5\text{OH}$ 2) CH_3CHO (EAMCET-2007)
3) CH_3COCH_3 4) CH_3COOH

7. What reagent is used in Rosenmund's reduction? (EAMCET-2006)

- 1) $\text{H}_2 / \text{Pd} - \text{BaSO}_4$
2) LiAlH_4
3) $\text{NH}_2 - \text{NH}_2 / \text{KOH} / \text{CH}_2\text{OH} - \text{CH}_2\text{OH}$
4) $\text{Zn} - \text{Hg} / \text{HCl}$

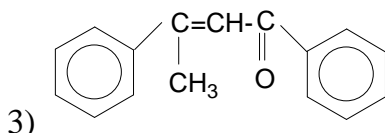
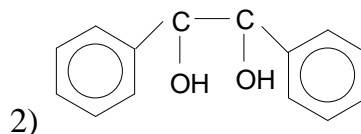
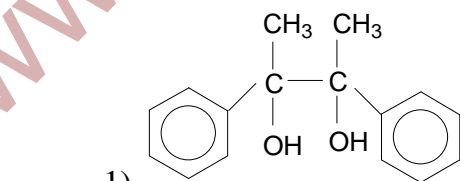
8. Which of the products formed when acetone is reacted with barium hydroxide solution? (EAMCET-2006)





In the above reactions 'A' and 'B' respectively, are (EAMCET-2007)

- 1) $\text{CH}_3\text{COOC}_2\text{H}_5$, $\text{C}_2\text{H}_5\text{OH}$ 2) CH_3CHO , $\text{C}_2\text{H}_5\text{OH}$
 3) $\text{C}_2\text{H}_5\text{OH}$, CH_3CHO 4) $\text{C}_2\text{H}_5\text{OH}$, $\text{CH}_3\text{COOC}_2\text{H}_5$
20. Which of the following is a pair of functional isomers? (EAMCET2005)
- 1) CH_3COCH_3 , CH_3CHO 2) $\text{C}_2\text{H}_5\text{CO}_2\text{H}$, $\text{CH}_3\text{CO}_2\text{CH}_3$
 3) $\text{C}_2\text{H}_5\text{CO}_2\text{H}$, $\text{CH}_3\text{CO}_2\text{C}_2\text{H}_5$ 4) $\text{CH}_3\text{CO}_2\text{H}$, CH_3CHO
21. Acid hydrolysis of X yields two different organic compounds. Which one of the following is X? (EAMCET2003)
- 1) CH_3COOH 2) CH_3CONH_2 3) $\text{CH}_3\text{COOC}_2\text{H}_5$ 4) $(\text{CH}_3\text{CO})_2\text{O}$
22. In the reaction sequence $\text{C}_2\text{H}_5\text{Cl} + \text{KCN}$. What is the molecular formula of Y? (EAMCET2003)
- 1) $\text{C}_3\text{H}_6\text{O}_2$ 2) $\text{C}_3\text{H}_5\text{N}$ 3) $\text{C}_2\text{H}_4\text{O}_2$ 4) $\text{C}_2\text{H}_6\text{O}$
23. In the following reaction, X and Y are respectively (EAMCET2002)
- $$\text{CH}_3\text{COOH} + \text{NH}_3 \rightarrow \text{X} \xrightarrow{\Delta} \text{Y} + \text{H}_2\text{O}$$
- 1) CH_3CONH_2 , CH_4 2) $\text{CH}_3\text{COONH}_4$, CH_3CONH_2
 3) CH_3CONH_2 , CH_3COOH 4) CH_3NH_2 , CH_3CONH_2
24. Acetophenone when reacted with a base $\text{C}_2\text{H}_5\text{ONa}$, yields a stable compound which has the structure (AIPMT 2008)



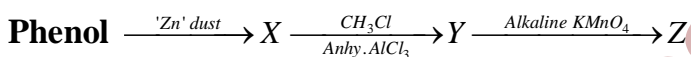
25. Propanoic acid with Br_2/P yields a dibromo product. Its structure would be
(AIPMT 2009)

- 1) $\text{CH}_3 - \text{CBr}_2 - \text{COOH}$ 2) $\text{CH}_2\text{Br} - \text{CH}_2\text{Br} - \text{COOH}$
3) $\text{CHBr}_2 - \text{CH}_2 - \text{COOH}$ 4) $\text{CH}_2\text{Br} - \text{CH}_2 - \text{COBr}$

26. The relative reactivities of acyl compounds towards nucleophilic substitution are in the order of
(AIPMT 2008)

- 1) Acid anhydride > Amide > Ester > Acyl chloride
2) Acyl chloride > ester > Acid anhydride > Amide
3) Acyl chloride > Acid anhydride > Ester > Amide
4) Ester > Acyl chloride > Amide > Acid anhydride

27. What is 'Z' in the following sequence of reactions (AIPMT 2009)



- 1) Benzene 2) Toulene 3) Benzaldehyde 4) Benzoic acid

Key

- 1) 1 2) 3 3) 2 4) 3 5) 4 6) 1 7) 1 8) 1 9) 4 10) 4
11) 3 12) 2 13) 1 14) 3 15) 3 16) 2 17) 4 18) 3 19) 4 20) 2
21) 3 22) 1 23) 2 24) 3 25) 1 26) 3 27) 4