

Aldehydes, Ketones and Carboxylic Acids

1. Correct order of decreasing reactivity of nucleophilic addition in case of HCHO , CH_3CHO and CH_3COCH_3 is

- (a) $\text{CH}_3\text{COCH}_3 > \text{CH}_3\text{CHO} > \text{HCHO}$
- (b) $\text{HCHO} > \text{CH}_3\text{CHO} > \text{CH}_3\text{COCH}_3$
- (c) $\text{CH}_3\text{COCH}_3 > \text{HCHO} > \text{CH}_3\text{CHO}$
- (d) $\text{CH}_3\text{CHO} > \text{HCHO} > \text{CH}_3\text{COCH}_3$

▼ **Answer**

Answer: b

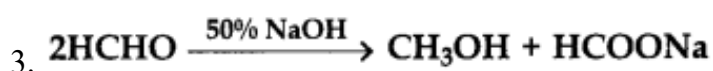
2. The reagent with which both acetaldehyde and acetone react easily is

- (a) Fehling's reagent

- (b) Grignard's reagent
- (c) Schiff's reagent
- (d) Tollen's reagent

▼ Answer

Answer: b



The above chemical reaction represents

- (a) Rosenmund's reaction.
- (b) Cannizaro's reaction.
- (c) Kolbe's reaction,
- (d) Etard's reaction.

▼ Answer

Answer: b

4. For distinction between pentan-2-one and pentan-3-one, which reagent can be employed?

- (a) $\text{K}_2\text{Cr}_2\text{O}_7/\text{H}^+$
- (b) ZnHg/HCl
- (c) NaOH/I_2
- (d) $\text{AgNO}_3/\text{NH}_4\text{OH}$

▼ Answer

Answer: c

5. Which of the following will undergo aldol condensation?

- (a) $\text{CH}_2 = \text{CHCHO}$
- (b) $\text{CH} = \text{CCHO}$
- (c) $\text{C}_6\text{H}_5\text{CHO}$
- (d) $\text{CH}_3\text{CH}_2\text{CHO}$

▼ Answer

Answer: d

6. Compound 'A' $\text{C}_5\text{H}_{10}\text{O}$ forms a phenyl hydrazone and gives a negative Tollen's reagent test and iodoform test. On reduction with $\text{Zn}+\text{Hg}/\text{HCl}$, compound A gives n-pentane. The compound 'A' is

- (a) Primary alcohol
- (b) Aldehyde

- (c) Secondary alcohol
(d) Ketone

▼ Answer

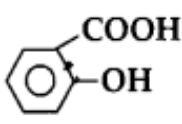
Answer: b

7. Tert Butyl alcohol can be obtained by treating with CH_3MgBr followed by hydrolysis

- (a) HCHO
(b) CH_3CHO
(c) CH_3COCH_3
(d) $\text{CH}_3\text{CH}_2\text{CHO}$

▼ Answer

Answer: c

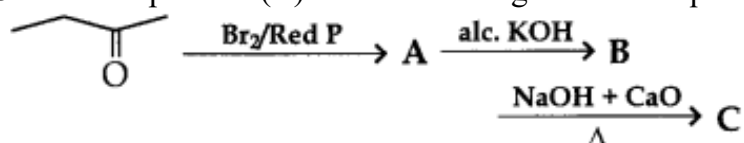
8.  $\xrightarrow{\text{Conc. HNO}_3}$? The main product is

- (a) 3-Nitrosalicylic acid
(b) 3, 5-Dinitrosalicylic acid
(c) m-Nitrobenzoic acid
(d) Picric acid

▼ Answer

Answer: d

9. The end product (C) in the following reaction sequence is



- (a) $\text{CH}_3 - \text{CH}_2 \text{COONa}$
(b) $\text{CH}_2 = \text{CH}_2$
(c) $\text{CH}_3 - \text{CH}_3$
(d) $\text{CH}_2 = \text{CH-COOH}$

▼ Answer

Answer: b

10. Benzoic acid is weaker than but stronger than

- (a) p-toluic acid, o-toluic acid
- (b) p-nitrobenzoic acid, p-toluic acid
- (c) acetic acid, formic acid
- (d) formic acid, acetic acid

▼ **Answer**

Answer: d
