

# Aldehydes, Ketones and Carboxylic Acids

1. Correct order of decreasing reactivity of nucleophilic addition in case of HCHO, CH<sub>3</sub>CHO and CH<sub>3</sub>COCH<sub>3</sub> is

- (a) CH<sub>3</sub>COCH<sub>3</sub> > CH<sub>3</sub>CHO > HCHO
- (b) HCHO > CH<sub>3</sub>CHO > CH<sub>3</sub>COCH<sub>3</sub>
- (c) CH<sub>3</sub>COCH<sub>3</sub> > HCHO > CH<sub>3</sub>CHO
- (d) CH<sub>3</sub>CHO > HCHO > CH<sub>3</sub>COCH<sub>3</sub>

▼ **Answer**

Answer: b

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

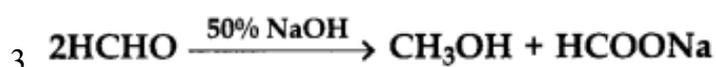
- (a) Fehling's reagent

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

▼ Answer

Answer: b

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The above chemical reaction represents

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

▼ Answer

Answer: b

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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)  $\text{ZnHg}/\text{HCl}$
- (c)  $\text{NaOH}/\text{I}_2$
- (d)  $\text{AgNO}_3/\text{NH}_4\text{OH}$

▼ Answer

Answer: c

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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

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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

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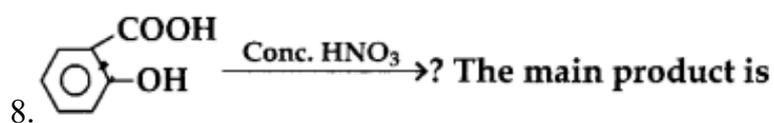
7. Tert Butyl alcohol can be obtained by treating with  $\text{CH}_3\text{MgBr}$  followed by hydrolysis

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

▼ Answer

Answer: c

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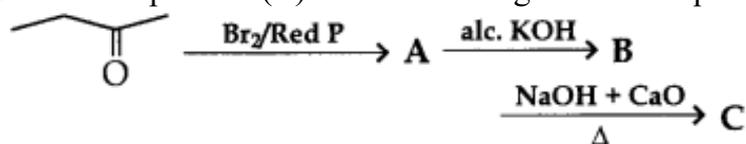
- (a) 3-Nitrosalicylic acid  
(b) 3, 5-Dinitrosalicylic acid  
(c) m-Nitrobenzoic acid  
(d) Picric acid

▼ Answer

Answer: d

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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

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10. Benzene 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

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