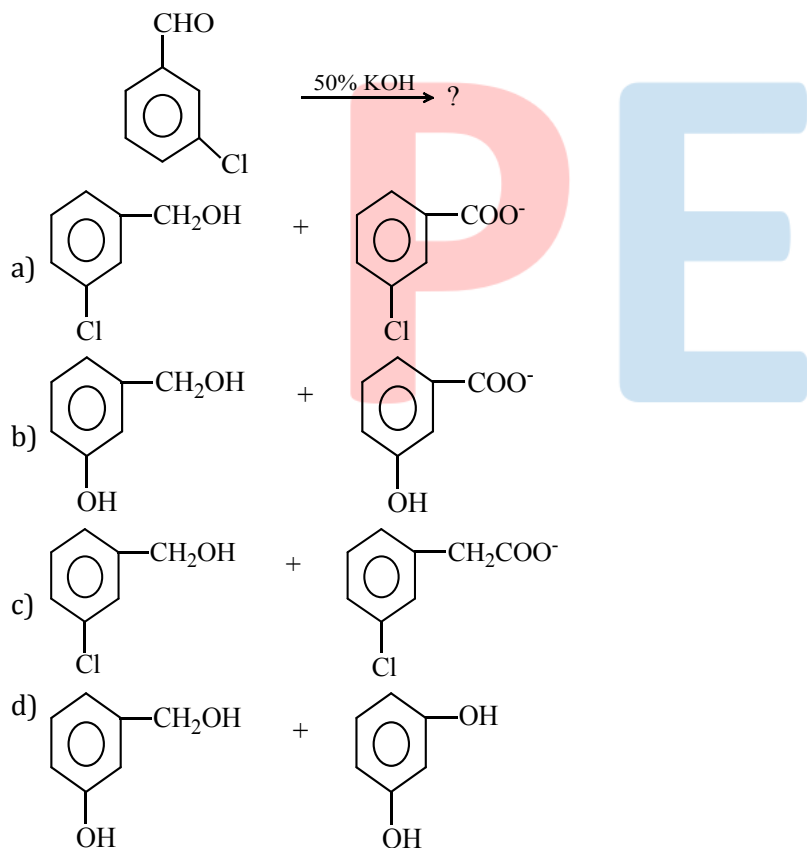
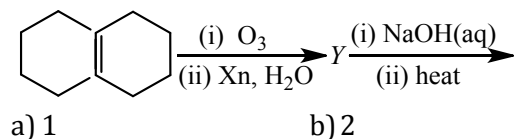


Topic :- Aldehydes, Ketones & Carboxylic Acids

- A compound 'A' has a molecular formula C_2Cl_3OH . A reduces Fehling solution and on oxidation produces a monocarboxylic acid B. A can also be obtained by the action of Cl_2 on ethanol. A is
 a) Chloral b) $CHCl_3$ c) CH_3Cl d) Chloroacetic acid
- Predict the products in the given reaction.



- In the scheme given below, the total number of intramolecular aldol condensation products formed from "Y" is



4. Calcium propanoate on refluxing yields:
 a) Propanol-2 b) Propanone-2 c) Pentanone-3 d) Pentanone-2
5. When a mixture of one mole of benzoic acid and one mole of phenol in water is treated with one mole of NaHCO_3 , the product formed will consist of
 a) $\phi\text{COOH} + \phi\text{ONa}$ b) $\phi\text{COONa} + \phi\text{ONa}$ c) $\phi\text{COONa} + \phi\text{OH}$ d) $\phi\text{COO}\phi + \phi\text{COOCO}\phi$
6. Aldehyde not showing Cannizaro's reaction is
 a) Paraldehyde b) Chloral c) Formaldehyde d) Acetaldehyde
7. Compound (A) (molecular formula $\text{C}_3\text{H}_8\text{O}$) is treated with acidified potassium dichromate to form a product B (molecular formula $\text{C}_3\text{H}_6\text{O}$). 'B' forms a shining silver mirror on warming with ammonical silver nitrate. 'B' when treated with an aqueous solution of $\text{H}_2\text{NCONHNH}_2 \cdot \text{HCl}$ and sodium acetate gives a product 'C'. Identify the structure of 'C':
 a) $\text{CH}_3\text{CH}_2\text{CH} = \text{NNHCONH}_2$ b) $(\text{CH}_3)_2\text{C} = \text{NNHCONH}_2$
 c) $(\text{CH}_3)_2\text{C} = \text{NCONHNH}_2$ d) $\text{CH}_3\text{CH}_2\text{CH} = \text{NCONHNH}_2$
8. Methyl cyanide can be converted into acetic acid by:
 a) Reduction b) Hydrolysis c) Electrolysis d) Decarboxylation
9. A product obtained by the reaction of X with hydroxylamine and on further reduction gives

$$\begin{array}{c} \text{H} \quad \text{NH}_2 \\ \diagdown \quad / \\ \text{C}_2\text{H}_5 - \text{C} - \text{C}(\text{CH}_3)_3 \end{array}$$
 Hence, the compound X can be
 a) 2,2-dimethyl-3-pentanone b) 3,3-dimethyl-3-butanone
 c) 1-methyl-3-pentanone d) Diethyl ketone
10. The main reason for the fact that carboxylic acids can undergo ionization is:
 a) Absence of α -H-atom
 b) Resonance stabilization of carboxylate ion
 c) High reactivity of α -H-atom
 d) Hydrogen bonding
11. Acetamide reacts with maximum ease with:
 a) $\text{C}_2\text{H}_5\text{OH}$ b) $\text{C}_2\text{H}_5\text{NH}_2$ c) H_2O d) aq. NaOH
12. Formalin is the commercial name of
 a) Formic acid b) Fluroform
 c) 40% aqueous solution of methanal d) para formaldehyde
13. Which of the following carboxylic acids is not reduced to the corresponding 1° alcohol by LiAlH_4 ?
 a) $\text{BrCH}_2\text{CH}_2\text{CH}_2\text{COOH}$ b) Cyclohexane carboxylic acid

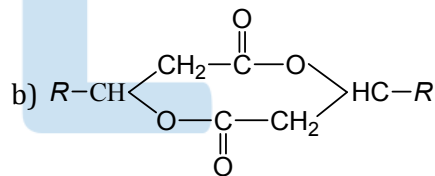
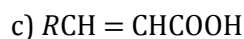
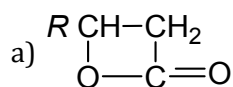
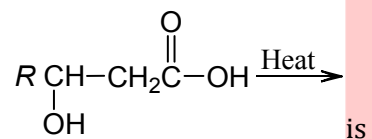
- c) (Z) – CH₃CH = CHCH₂COOH
 14. The weakest acid amongst the following is
 a) ClCH₂COOH b) HCOOH
 c) FCH₂CH₂COOH d) CH₂(I)COOH

15. Identify (X) in the sequence,
 $C_4H_7OCl \xrightarrow{NH_3} C_4H_9ON \xrightarrow{Br_2/KOH} CH_3CH_2CH_2NH_2$:

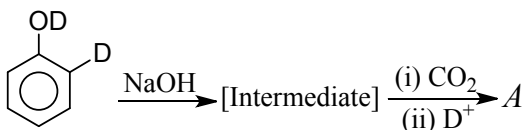
- a) $\begin{array}{l} CH_3 \\ \diagdown \\ CH-COCl \\ \diagup \\ CH_3 \end{array}$
 b) $\begin{array}{c} CH_3 \rightarrow CH_2-CH-CH_2 \\ | \quad | \\ OH \quad Cl \end{array}$
 c) CH₃—CH₂—CH₂—COCl
 d) OHC—CH₂—CH₂—CH₂—Cl

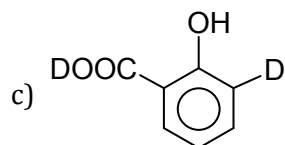
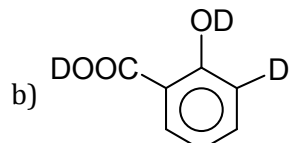
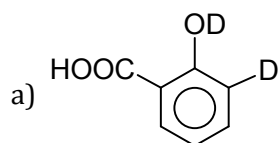
16. Which compound is oxidised to prepare ethyl methyl ketone?
 a) Propanol-2 b) Butanol-1 c) Butanol-2 d) Tert-butyl alcohol

17. The product obtained in the reaction



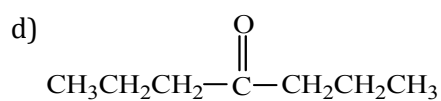
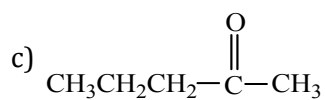
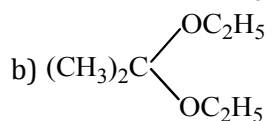
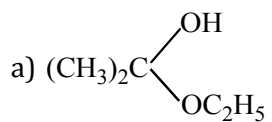
d) None of the above

18. 
 Here, A is



d) Reaction not possible

19. Acetone is treated with excess of ethanol in the presence of hydrochloric acid. The product obtained is:



20. When acetaldehyde is heated with Fehling's solution, it gives a red precipitate of:

a) Cu

b) CuO

c) Cu + Cu₂O + CuO

d) Cu₂O

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