



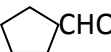
CHEMISTRY

CH: 12 ALDEHYDES, KETONES & CARBOXYLLIC ACIDS

Class: XII

I Answer the following

1. Write IUPAC names.

- a. $\text{CH}_3\text{COCH}=\text{C}(\text{CH}_3)_2$ b. $\text{CH}_3\text{C}=\text{C}-\text{CH}=\text{CHCOOH}$
b. $\text{CH}_3-\text{COCH}=\text{C}(\text{CH}_3)$ d. 

2. Write the structure of the following compounds.

- a. 3-oxopentanal. b. 2-chloro,3-methylpentanal.
c. 1-phenylpropanone. d. Pent-2-enal.

3. Give chemical tests to distinguish between the following pairs of compounds

- a. Benzaldehyde and benzoic acid.
b. Propanoylchloride and propanoic acid.
c. Benzaldehyde and ethanal

4. Give reasons for the following.

- a. Monochloroethanoic acid has a higher pKa value than dichloroethanoic acid.
b. Ethanoic acid is weaker than benzoic acid.
c. Aldehydes are more reactive than ketones towards nucleophiles.
Or
Ethanal is more reactive than acetone towards nucleophilic addition reactions.
Or
 CH_3CHO is more reactive than CH_3COCH_3 towards reaction with HCN.
d. The aldehydes and ketones undergo a number of addition reactions.
e. The boiling points of aldehydes and ketones are lower than corresponding acids.
f. $(\text{CH}_3)_3\text{C}-\text{CHO}$ does not undergo aldol condensation.
g. Carboxylic acids are higher boiling liquids than alcohols.