## 22. Give two tests for acetic acid.

1. When ethanoic acid (acetic acid) is warmed with ethanol in the presence of a few drops of concentrated sulphuric acid, a sweet smelling ester called ethyl ethanoate (or) ethylacetate is formed.

2. Acetic acid produces red colour when a neutral solution of ferric chloride is added to it.

## 23. What is decarboxylation? Give an example.

Decarboxylation is the elimination of CO<sub>2</sub> from a carboxylic acid.

When sodium salts of acetic acid are heated with soda lime (NaOH + CaO) alkanes are formed.

CH<sub>3</sub> COONa + NaOH 
$$\xrightarrow{\text{CaO}}$$
 CH<sub>4</sub> + Na<sub>2</sub>CO<sub>3</sub>

Sodium acetate  $\xrightarrow{\text{Methane}}$  Methane

Write a note on Quick Vinegar I r Clss.

A dilucionation of acetic acro ( $\xleftarrow{\text{C}}$  7%) is known as vinegar. It is prepared by the Christian of ethyl alcoholowith methacteria acetobaceter in the presence of air.

Acetic acid reacts with ammonia to give salts, which on heating yield acetanate.

CH<sub>3</sub> CH<sub>2</sub> OH + O<sub>2</sub>  $\xrightarrow{\text{acetobacter}}$  CH<sub>3</sub> - COOH + H<sub>2</sub>O

## 24.

$$CH_3 CH_2 OH + O_2 \xrightarrow{acetobacter} CH_3 - COOH + H_2O$$

## $CH_3COOH + NH_3 \longrightarrow ...?...$ Complete the reaction. 25.

Acetic acid reacts with ammonia to give salts, which on heating yield acetanate.

E.g.,

$$CH_3 COOH + NH_3 CH_3 \longrightarrow COONH_4 \stackrel{\Delta}{\longrightarrow} CH_3 CONH_2 + H_2O$$

Acetic acid

Ammonium acetate

Acetamide