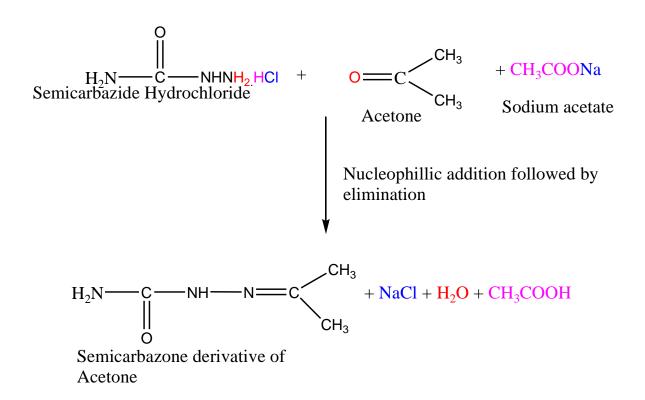
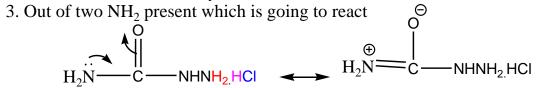
## AIM: To prepare semicarbazone derivative of acetone and report its melting point



- 1. Why do we take semicarbazide hydrochloride instead of semicarbazide Semicarbazide is not stable and readily oxidizes in air
- 2. Role of sodium acetate

To free the semicarbazide hydrochoride into semicarbazide



## $H_2NNHCONH_2 + CH_3COOH + NaCl$

## **MECHANISM**

$$H_3C$$
 $CH_3$ 
 $H_3C$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 

The acetic acid so formed acts as a catalyst in the reaction by protonating the oxygen of the carbonyl group.