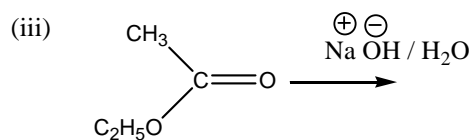
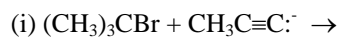


Name:

1. Predict (skeletal structure) and **name the product** from each of the following reactions:
Give the name of the **type of reaction mechanism**.



2. Provide a **detailed mechanism** for the reaction of *n*-propanol with sodium iodide in the presence of concentrated H_2SO_4 (reflux).

3. Explain why **cyclohexanamine** has a pK_b of 3.36 and yet aniline ($\text{C}_6\text{H}_5\text{NH}_2$) has a pK_b of 9.42.
- How would this effect the water solubility of these amines?

4. What is the product from the reaction between propanal and sodium hydroxide.
- Provide a **detailed mechanism**:

5. Provide a **detailed mechanism** for the following reaction. Indicate the **type of mechanism** and **name the product** that would be obtained.

