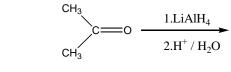
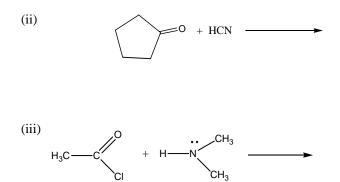
CH1012

## Name:

 Predict the organic product from the following reactions. Briefly justify your answer in each case.
(i)





- 2. Addition of water to 1-propene in the presence of conc.  $H_2SO_4$  (catalyst) could, in principle, give two products.
  - Name the possible products.
  - Explain in detail why only one of these products is formed.

3. Describe a chemical test to distinguish if an organic compound is an aldehyde or a ketone. Write an equation for the test you propose and indicate the observations that you would expect.

4. Give a detailed mechanism for the nucleophilic reaction between ethanal and ethyl magnesium bromide.

5. Provide a detailed mechanism for the **Aldol reaction** of butanal under basic conditions (NaOH).

