

## School of Chemistry

## Chemistry 1B Advanced and SSP (CHEM1902/1904)

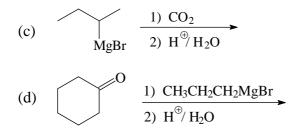
## **Problem Sheet 6**

1. Identify the following compounds as an aldehyde or a ketone. Then draw the formula of the major organic products formed on oxidation with acidified potassium dichromate solution and reduction with sodium borohydride followed by aqueous acid. If there is no reaction, write "NR".

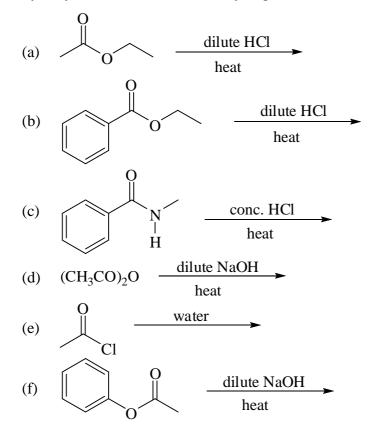
Starting Material	Functional Group	Oxidation Product	Reduction Product
O C H			
СНО			

2. Draw the constitutional formula of the major organic product formed in the following reactions. If there is no reaction, write "NR".

(a) I + Mg dry ether solvent (b) H (c) H (c) H (c) H (c)  $H^{\oplus}/H_2O$ 



3. Give the constitutional formula of the major organic product(s) formed in the following hydrolysis reactions. Make sure you give the correct ionic form of the products.



4. Give the constitutional formula of the major organic product(s) formed in the following reactions. If no reaction, write "NR".

