## Chemguide - questions

## ALDEHYDES AND KETONES: MAKING THEM

1. a) Which oxidising agent is used to oxidise alcohols to either aldehydes or ketones, and what would you see during the reaction?

b) Draw the structure of the aldehyde or ketone that would be formed if you oxidised each of the following alcohols. You can assume that conditions are used so that you don't get further oxidation of the aldehyde to a carboxylic acid.

(i) CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>OH
(ii) CH<sub>3</sub>CH<sub>2</sub>CHCH<sub>3</sub> OH
(iii) CH<sub>3</sub>CHCH<sub>2</sub>OH
(iii) CH<sub>3</sub>CHCH<sub>2</sub>OH
CH<sub>3</sub>

c) Draw the structure of the alcohol you would oxidise in order to get

(i) pentan-2-one

(ii) butanal

d) If you wanted to oxidise ethanol to make ethanal without risking the further oxidation to ethanoic acid, how would you do this?