## 2<sup>ND</sup> YEAR ORGANIC PROBLEM CLASSES 2004/2005 Class 2. Prof Alan Armstrong – Organic Synthesis

Class to be held at *3pm on Monday 15<sup>th</sup> November 2004* in normal tutors groups Answers to be handed in to **Doris Pappoe's** office – **C1 Rm 241** *before 3 pm* on the day of the class. Late scripts will receive no credit.

Please write your own name AND YOUR TUTORS NAME on your script.

1. Predict the major product of the following reactions, giving an explanation for your choice.

2. Suggest reagents to perform each of the following transformations (more than one step may be needed in each case). Explain mechanistically any issues of selectivity in the reactions you choose.

(a) 
$$CO_2H$$
 OH  $CO_2Et$ 

$$(b) \qquad \qquad \bigcup_{E \in \mathcal{O}_2 Et} \mathcal{C}O_2 Et \qquad \qquad \bigcup_{E \in \mathcal{O}_2 Et} \mathcal{C}O_2 Et$$