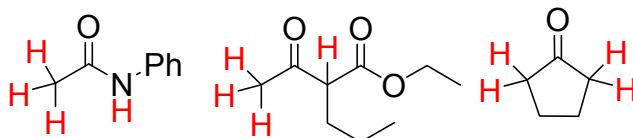
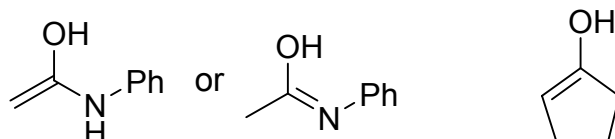
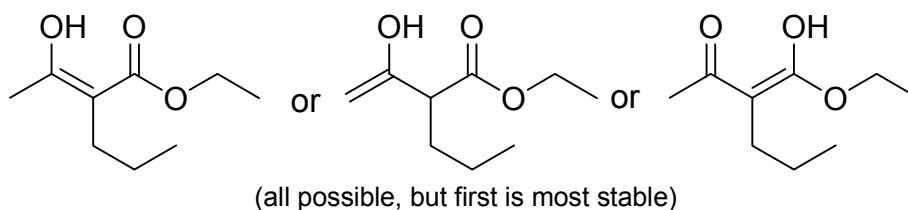


**WRITE YOUR ANSWERS ON THIS SHEET**

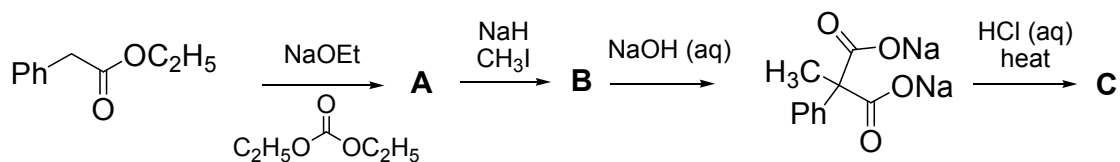
Q1 Label all of the acidic hydrogen atoms on the molecules shown. (3 marks)



Q2 Draw a tautomeric structure for each of the above (2 marks each)

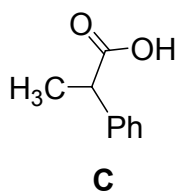
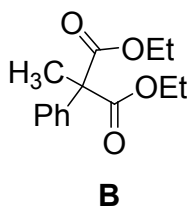
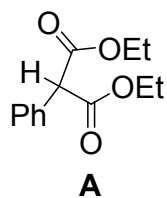


Q3 Consider the scheme below then answer the questions:



- (i) Work out structures for **A**, **B** and **C**. (2 marks each)
- (ii) Show the mechanism for the formation of **A**. (4 marks)
- (ii) Show the mechanism for the formation of **C**. (4 marks)
- (iv) What by-product is formed in producing **C**? (1 mark)

PTO



by-product is CO<sub>2</sub>

