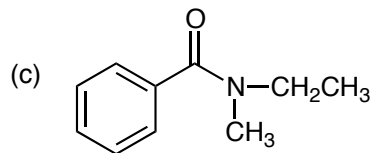
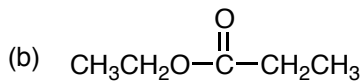
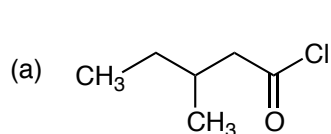
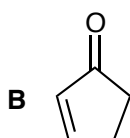
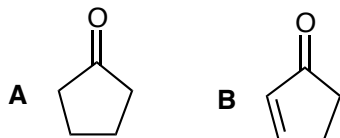


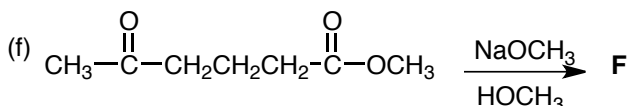
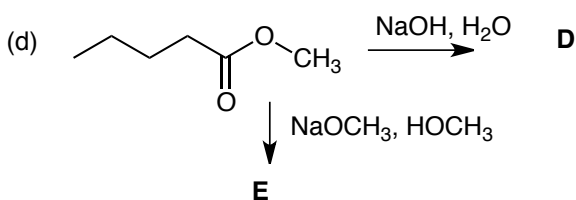
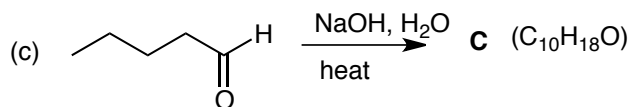
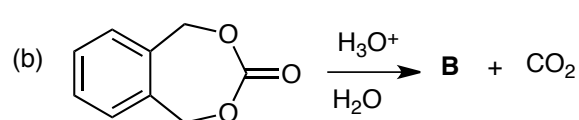
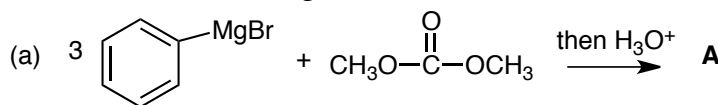
1. Name the following compounds. (15 pts)



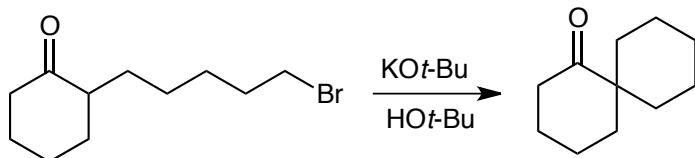
2. Look at molecules **A** and **B**. Which compound would form the greater concentration of enol in acidic conditions? Briefly explain your choice and show the complete reaction mechanism for enol formation for the molecule you choose. (5 pts)



3. Give the product of the following reactions and in each case show the complete reaction mechanism by which it is formed. (50 pts)



4. Show how the following reaction occurs, giving all steps of the mechanism. No other reagents are needed except those given. (10 pts)



5. Synthesize **TWO** of the molecules shown on the right from the starting materials given on the left. Do all three for extra credit. (20 pts).

