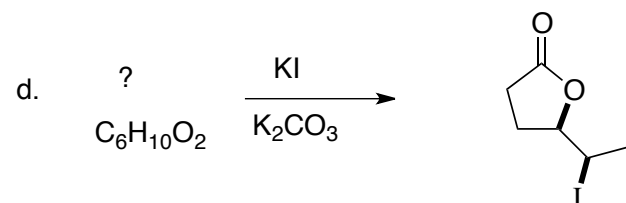
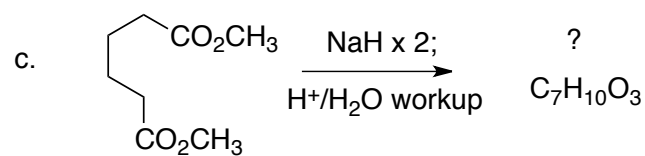
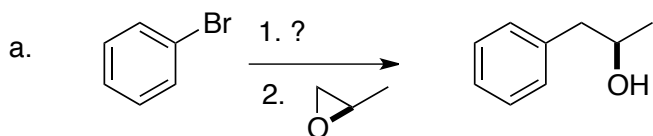


Chem 332
Spring 2013
Exam #4
May 17, 2013

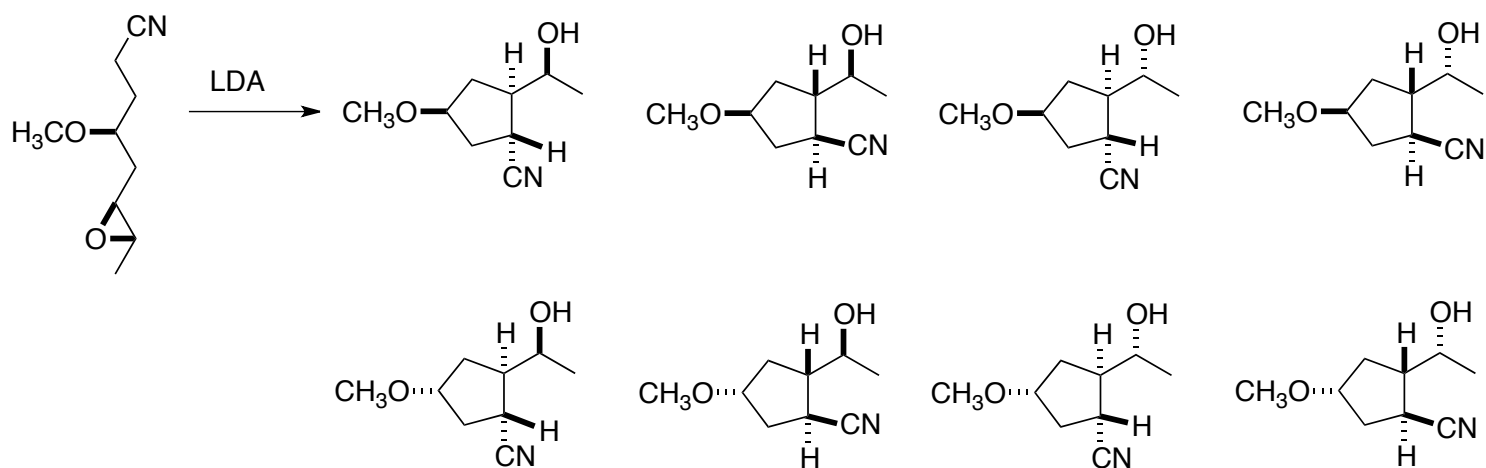
Name _____

This is an open-book, open notes exam. No electronic devices are allowed.

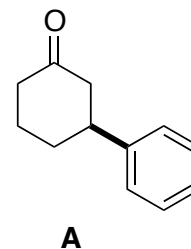
1. (5 points each) Fill in the missing reagent, product or starting material.



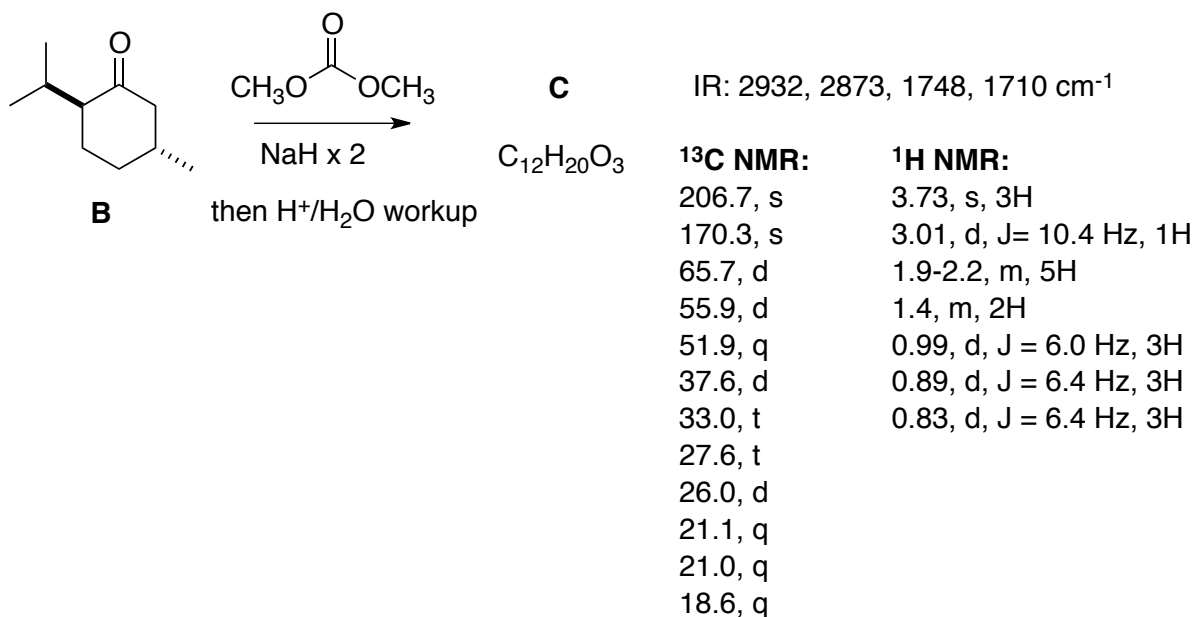
2. (20 points) Which product would be formed, and why? Explain in detail.



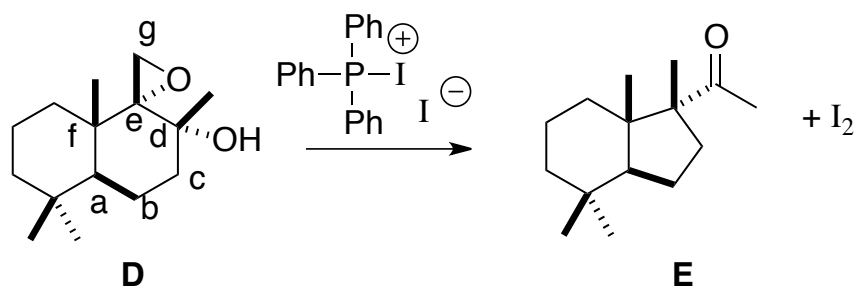
3. (20 points) Using one or more monosubstituted benzenes that each contribute six carbons to the final product, and any other pieces that contribute three or fewer carbons to the final product, outline a synthesis of **A**. Stereochemistry is not important.



4. (20 points) Deduce the structure of **C**, and draw an arrow-pushing mechanism for the conversion of **B** to **C**.



5. (20 points) Outline a mechanism for the transformation of **D** to **E**.



bb	bf