

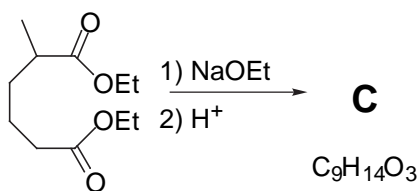
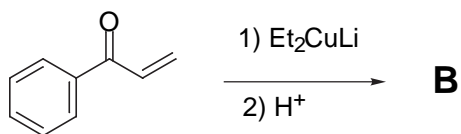
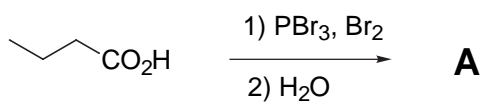
Chem 332
Exam 2
April 9, 2003
Prof. Fox
50 minutes
250 points

The exam is open book,
Open notes. Models are permitted
Show your work in detail

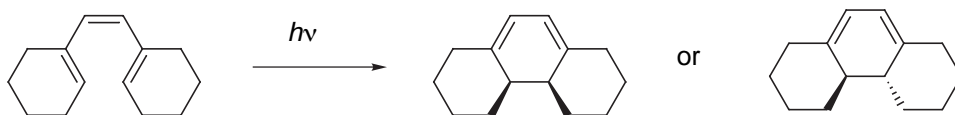
WRITE YOUR NAME ON EVERY PAGE

NAME _____

1. Provide structures of **A**, **B**, and **C**. 10 points for each correct answer (total 30 pts)

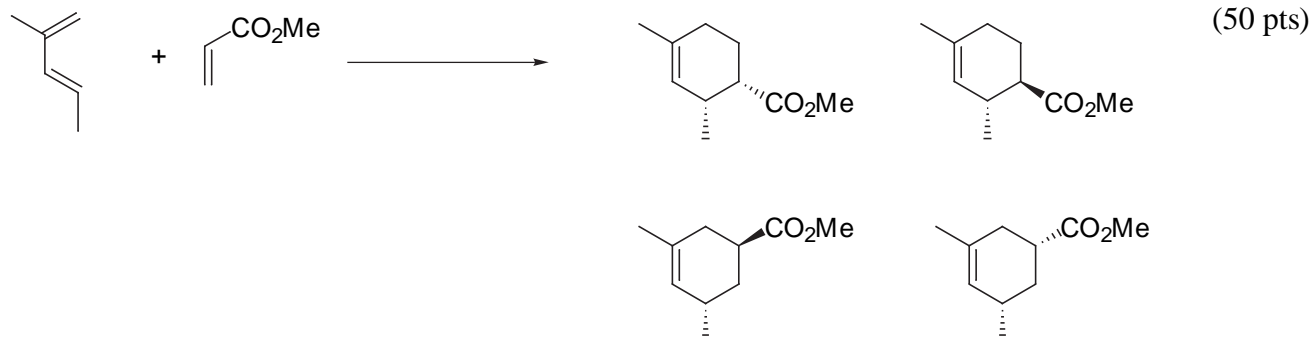


2 (50 points)

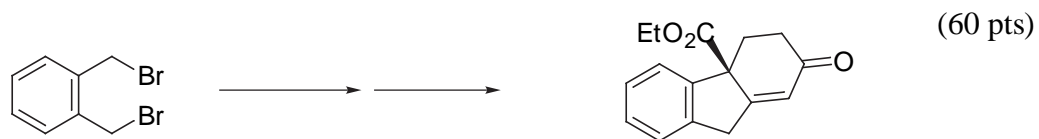


- Circle the correct answer
- Use your knowledge of molecular orbitals to decide if the electrocyclic closure must be conrotatory or disrotatory, and show how this will determine the stereochemical outcome of the reaction.

3. Circle the correct product. Provide an arrow pushing mechanism, and give a detailed explanation for the stereochemical outcome.



4. Provide a multistep synthesis using **E** and any other starting materials



5. Provide a detailed arrow pushing mechanism (60 points)

