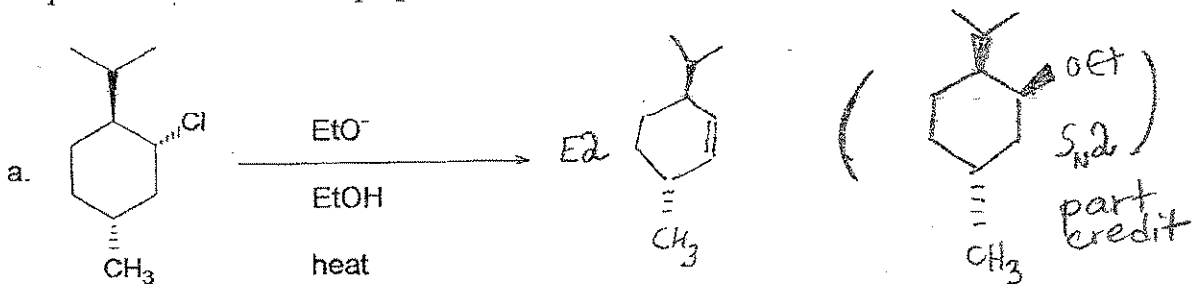


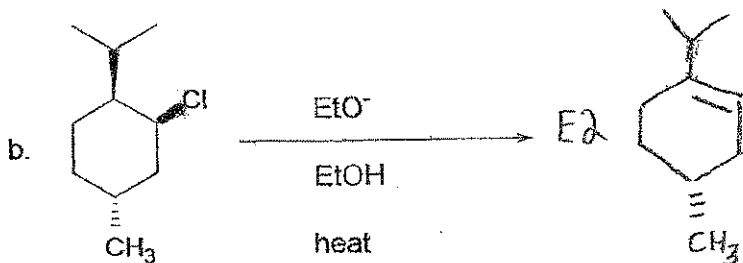
Spring 2011
 midterm II
 answer key

I. Show the major product or products of each of the following reactions. Do not show minor products. Be sure to show proper stereochemistry. (5 points each, 4 minutes each).

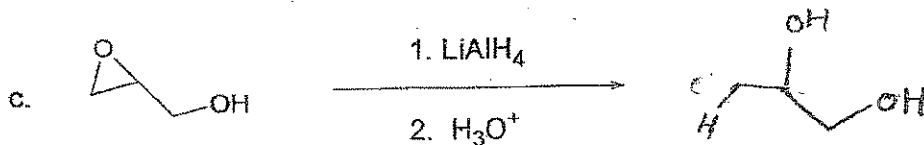
Ch. 9



Ch. 9



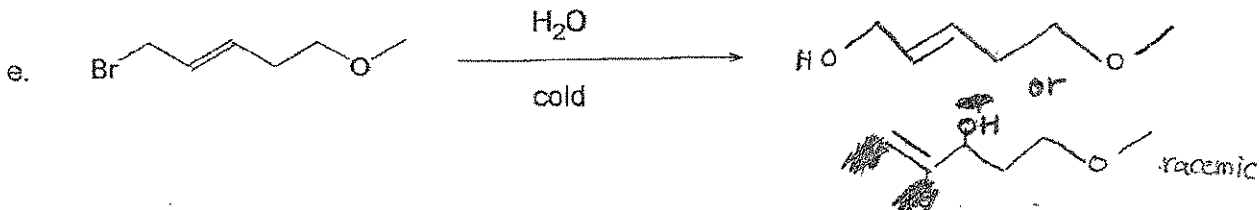
OMIT
 Ch. 11



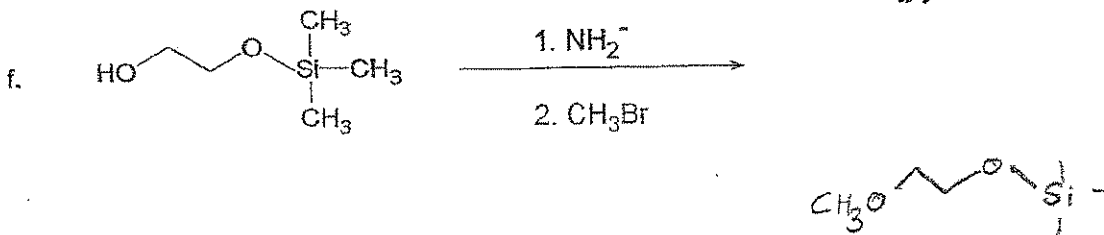
OMIT
 Ch. 10



Ch. 6/9

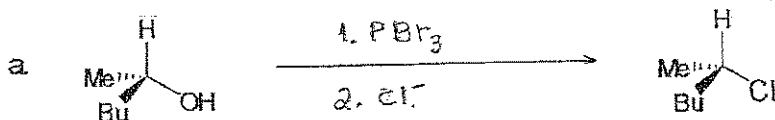


OMIT
 Ch. 11

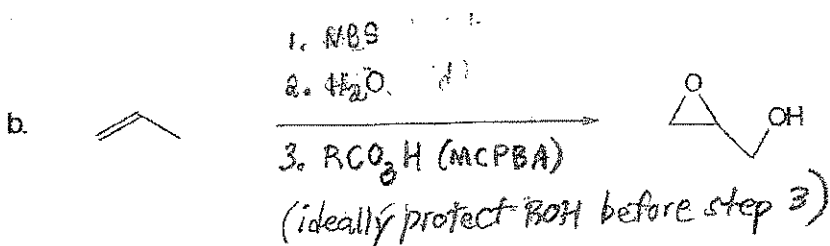


2. Give the reagent or reagents necessary to accomplish each of the following transformations. Number each step so it is clear when reagents must be added together or separately. Do not show intermediates. (6 points each, 4 minutes each)

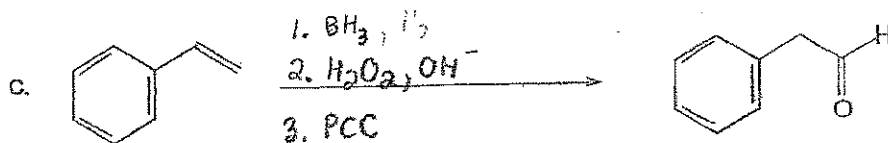
OMIT
Ch. 10



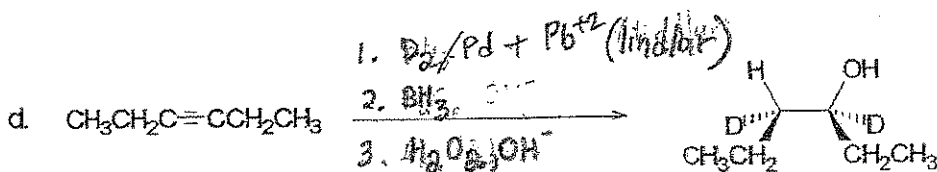
OMIT
Ch. 11



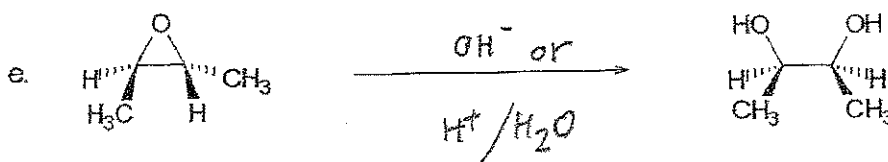
OMIT
Ch. 10



Ch. 6/7



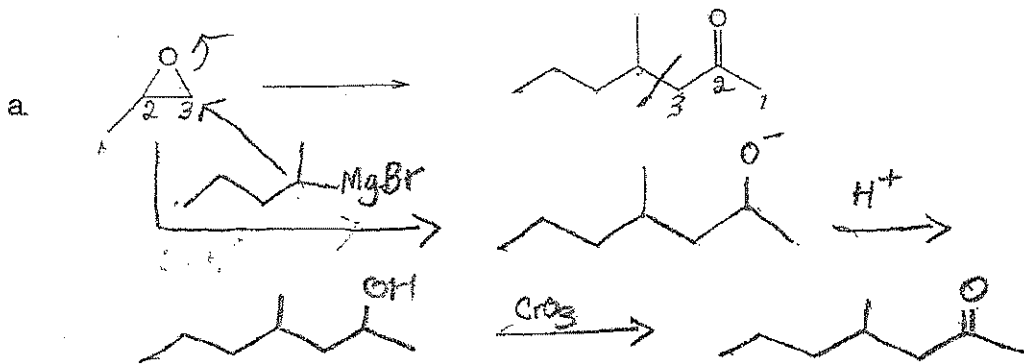
OMIT
Ch. 11



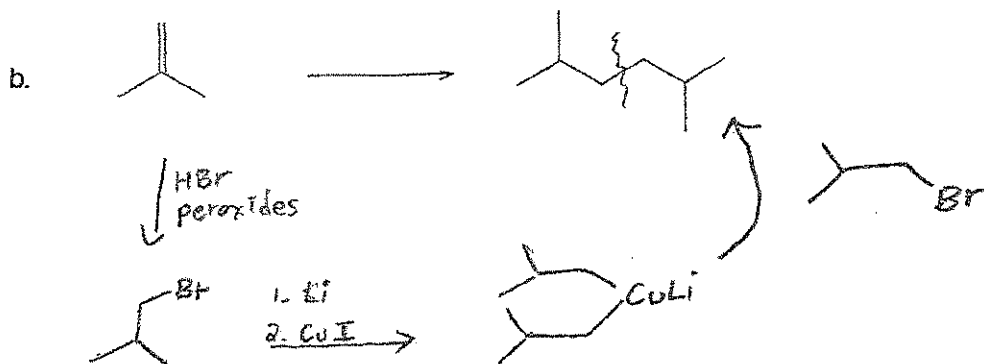
3. Give the reagent or reagents necessary to accomplish each of the following synthetic transformations. Any needed carbon based reagents are allowed. Show all intermediates. (9 points each, 7 minutes each)

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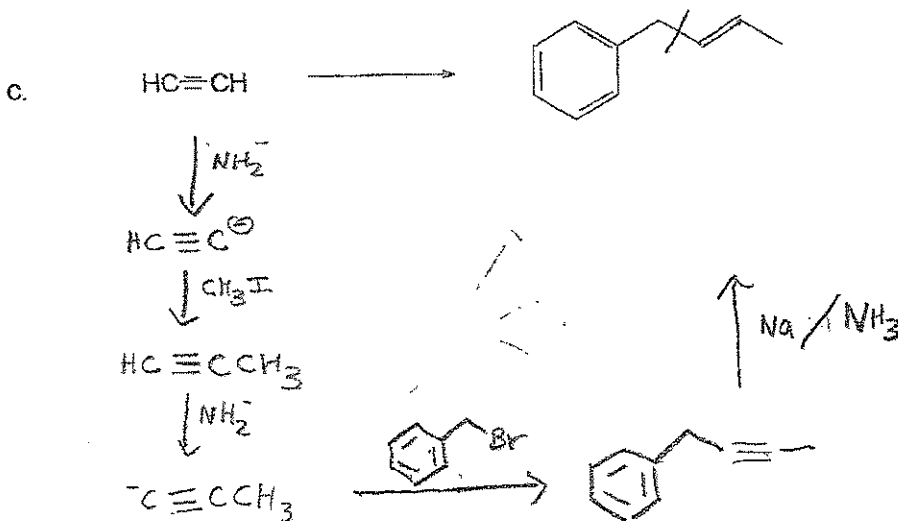
Ch. 16



Ch. 8/15



Ch. 7/9



4. Show the mechanism for the following reaction. (12 points, 8 minutes)

Ch. 6

