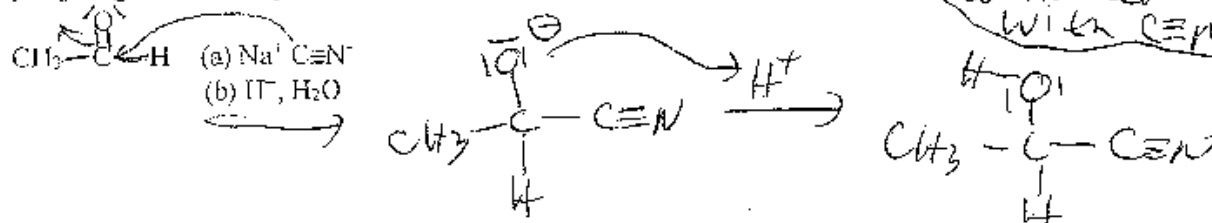
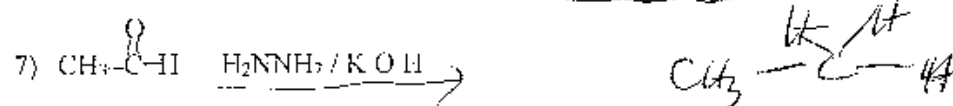
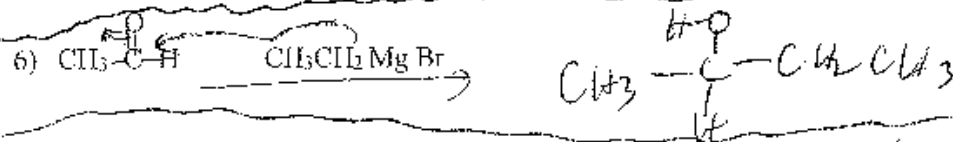
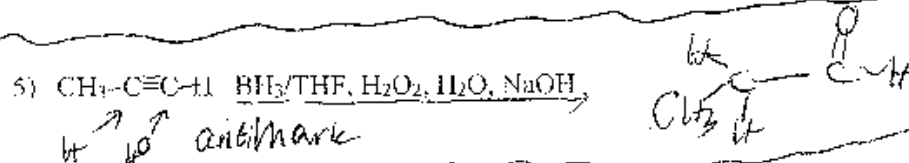
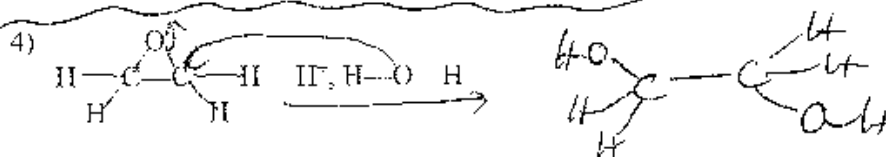
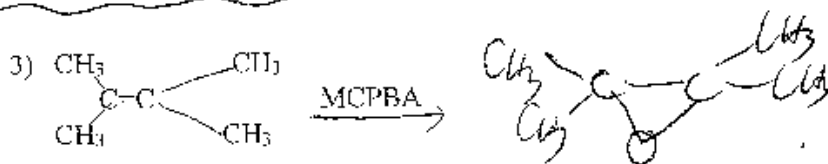
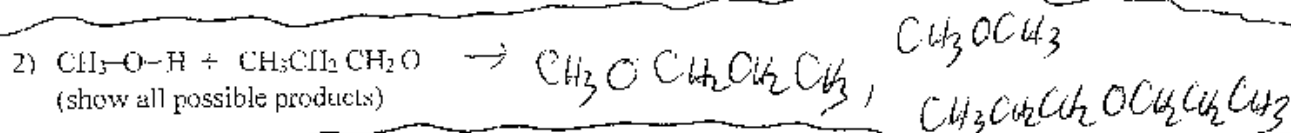
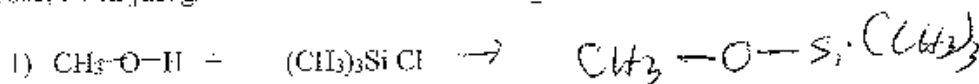


Please show work on all questions for partial credit even on questions which do not specify. I will only grade legible answers because if I can't read your answer, I obviously cannot grade it. NO EXCEPTIONS. (25 pts)

1. Keeping in mind the general reaction mechanism of the addition of a nucleophile to a ketone or aldehyde, complete the following reaction mechanism. (MECHANISM means you show all intermediates. If you just give reaction products, you will LOSE LOTS OF POINTS.) (10 pts)

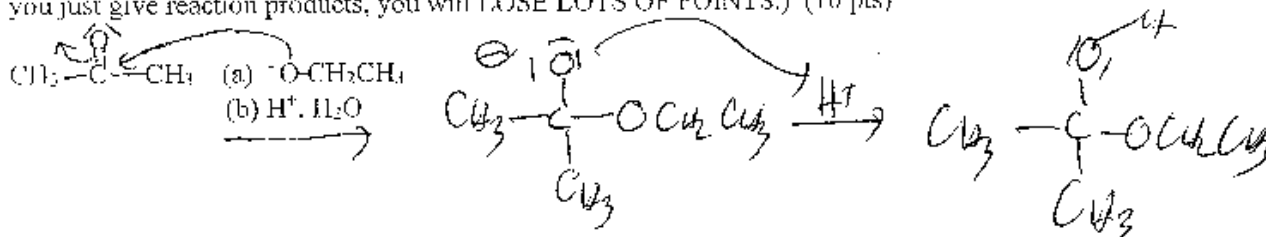


2. Give the structural formula of the Organic Product. Circle the letter of the 5 reaction which you want counted. Write EC by the one reaction which you want counted as an extra credit problem. If you do not choose, I will just grade the first 5 reactions and grade the 6<sup>th</sup> as extra credit. (EC worth 4 pts)(5 pts each, 15 pts)

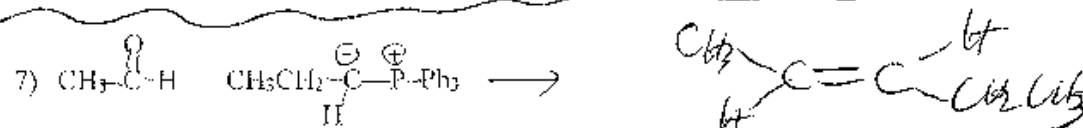
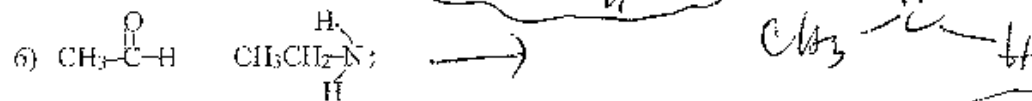
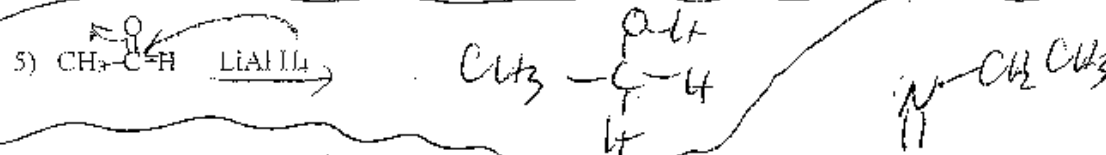
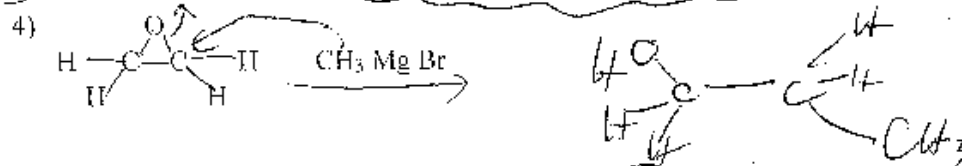
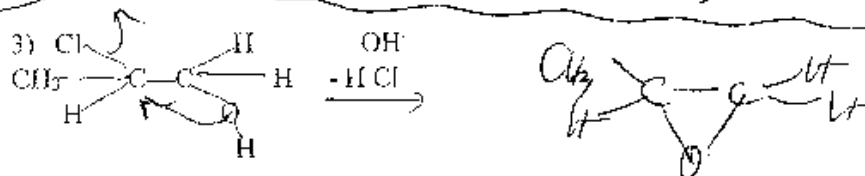
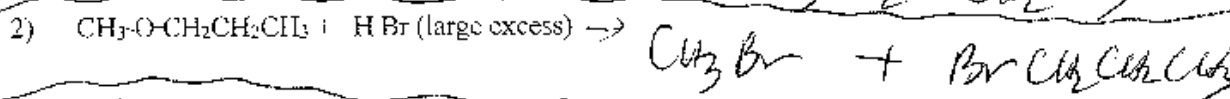
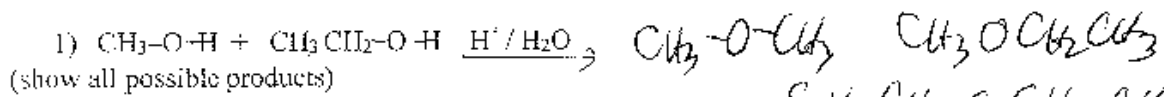


Please show work on all questions for partial credit even on questions which do not specify. I will only grade legible answers because if I can't read your answer, I obviously cannot grade it. NO EXCEPTIONS. (25 pts)

1. Keeping in mind the general reaction mechanism of the addition of a nucleophile to a ketone or aldehyde, complete the following reaction mechanism. (MECHANISM means you show all intermediates. If you just give reaction products, you will LOSE LOTS OF POINTS.) (10 pts)



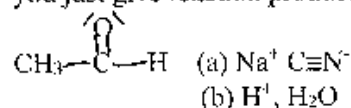
2. Give the structural formula of the Organic Product. Circle the number of the 5 reaction which you want counted. Write EC by the one reaction which you want counted as an extra credit problem if you do not choose. I will just grade the first 5 reactions and grade the 6<sup>th</sup> as extra credit. (EC worth 4 pts) (5 pts each, 15 pts)



Sign Name \_\_\_\_\_ Print Name \_\_\_\_\_

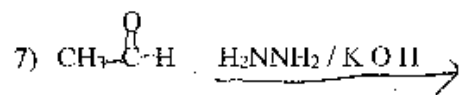
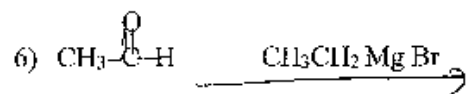
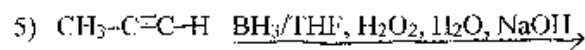
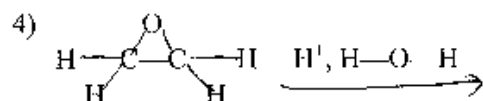
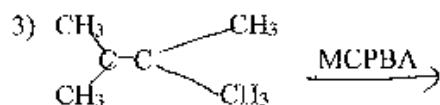
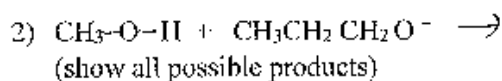
Please show work on all questions for partial credit even on questions which do not specify. I will only grade legible answers because if I can't read your answer, I obviously cannot grade it. NO EXCEPTIONS. (25 pts)

1. Keeping in mind the general reaction mechanism of the addition of a nucleophile to a ketone or aldehyde, complete the following reaction mechanism. (MECHANISM means you show all intermediates. If you just give reaction products, you will LOSE LOTS OF POINTS.) (10 pts)



*color*  
do not do H<sub>2</sub>O  
addn. to C=N

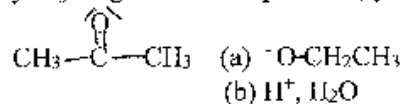
2. Give the structural formula of the Organic Product. Circle the letter of the 5 reaction which you want counted. Write EC by the one reaction which you want counted as an extra credit problem If you do not choose, I will just grade the first 5 reactions and grade the 6<sup>th</sup> as extra credit. (LC worth 4 pts)(5 pts each, 15 pts)



Sign Name \_\_\_\_\_ Print Name \_\_\_\_\_

Please show work on all questions for partial credit even on questions which do not specify. I will only grade legible answers because if I can't read your answer, I obviously cannot grade it. NO EXCEPTIONS. (25 pts)

1. Keeping in mind the general reaction mechanism of the addition of a nucleophile to a ketone or aldehyde, complete the following reaction mechanism. (MECHANISM means you show all intermediates. If you just give reaction products, you will LOSE LOTS OF POINTS.) (10 pts)



do not do  
2nd addition  
of  $\text{OC}_2\text{H}_5^-$

2. Give the structural formula of the Organic Product. **Circle the number of the 5 reaction which you want counted.** Write **EC** by the one reaction which you want counted as an extra credit problem. If you do not choose, I will just grade the first 5 reactions and grade the 6<sup>th</sup> as extra credit. (LC worth 4 pts) (5 pts each, 15 pts)

