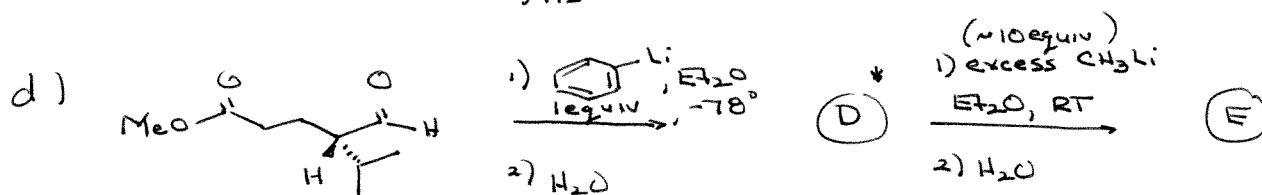
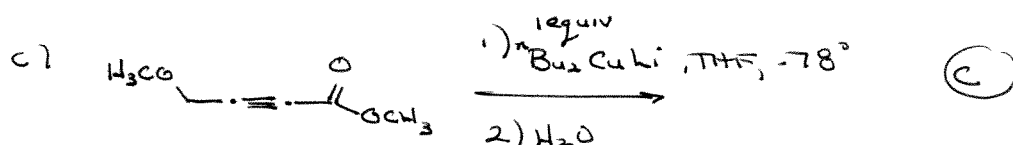
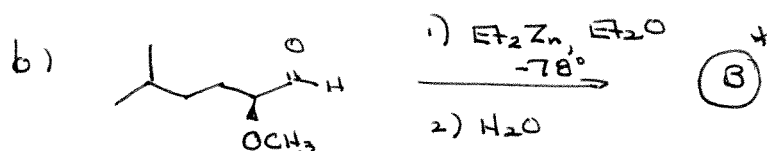
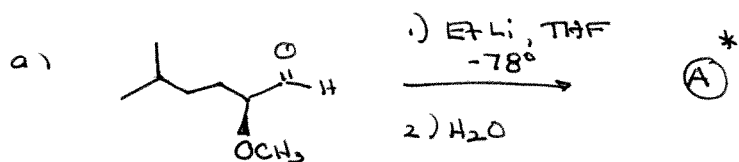
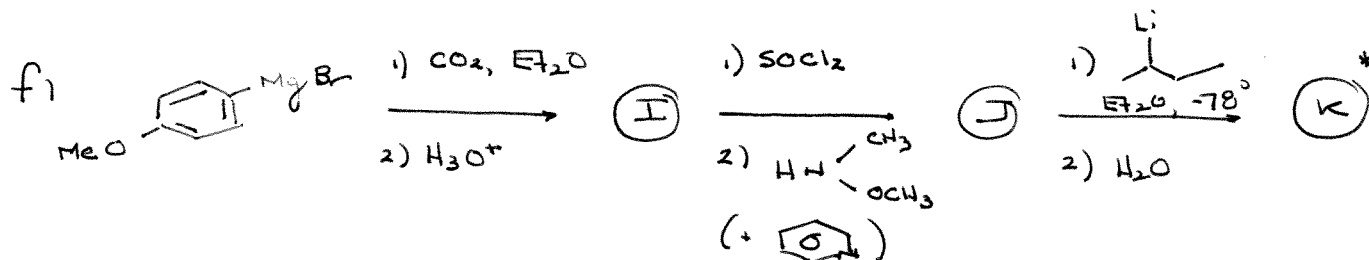
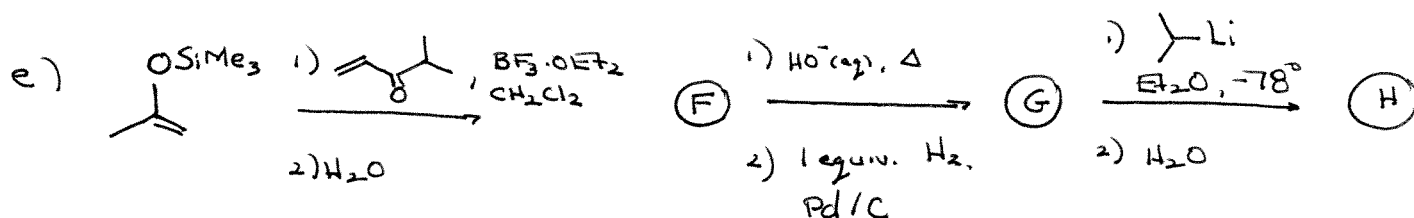


1. SHOW THE MOST REASONABLE PRODUCT FOR THE FOLLOWING TRANSFORMATIONS. INDICATE STEREOCHEMISTRY WHERE IT IS RELEVANT. MECHANISMS ARE NOT NECESSARY, BUT SHOWING YOUR WORK MAY BE A HELP.



NOTE: IT IS NORMALLY TRUE THAT AN ALCOHOL IS DEPROTONATED BY AN ALKYL-LITHIUM. BUT ANY REMOTE CARBONYL FUNCTION WILL STILL REACT IF THERE IS AN EXCESS OF ALKYL LITHIUM PRESENT.



NOTE: * D QUESTIONS HAVE IMPORTANT STEREOCHEMICAL ASPECTS ASIDE: C DOES TO, BUT WE HAVEN'T COVERED IT.

2. SHOW BY EQUATION HOW YOU WOULD CARRY OUT THE FOLLOWING TRANSFORMATIONS, SHOW ALL REAGENTS, REASONABLE CONDITIONS, AND ANY INTERMEDIATES THAT COULD BE ISOLATED. YOU MAY USE ANY OTHER REAGENTS YOU DEEM FIT.



NOTE: ASSUME POLYALKYLATION IS NOT A BIG PROBLEM.

