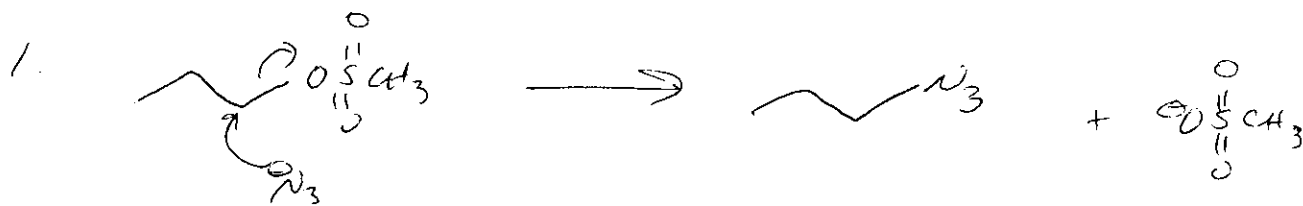
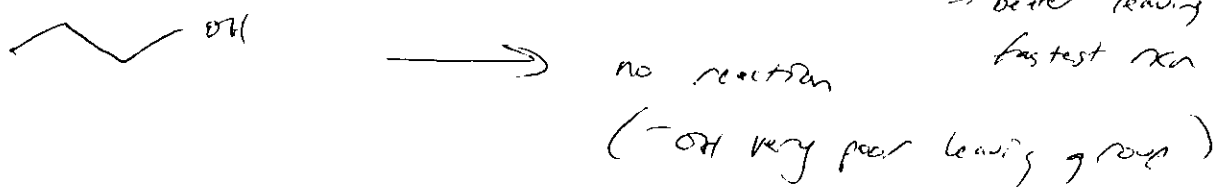


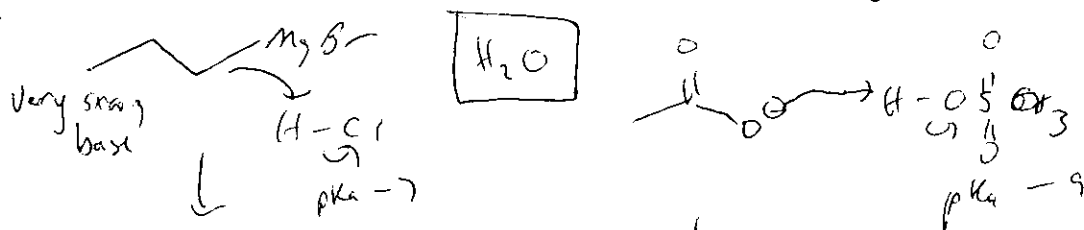
Practice Exam 2 - Answers



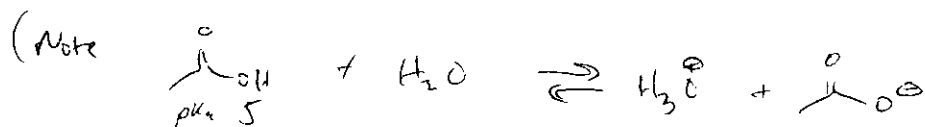
Fluorine negativity stabilizes $\ominus$
 $\Rightarrow$ better leaving group, fastest rxn



2.



Strong acids easily give up their H's



Equilibrium

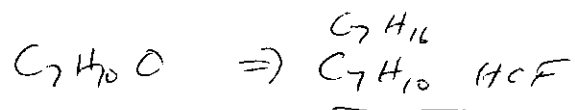
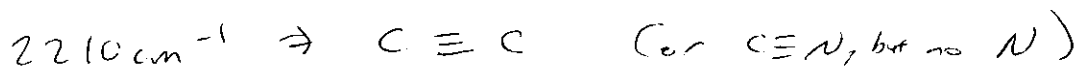
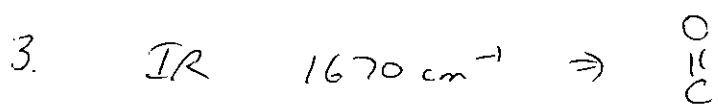
LIES

HERE

pKa -3

$\Rightarrow$ more readily gives up H^+ than CC(=O)O

CC(=O)O will not protonate H2O



$6/2 = 3 \text{ R}$

Each multiple bond = 1 degree of unsat

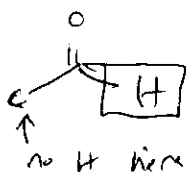
$\text{C}=\text{O}$ 1 degree of unsat

$\text{C} \equiv \text{C}$ 2 degrees of unsat

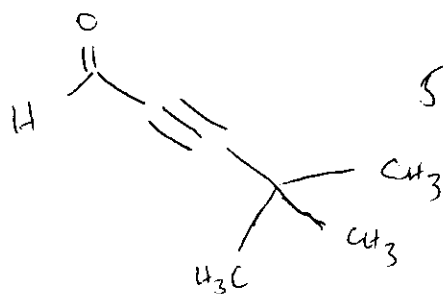
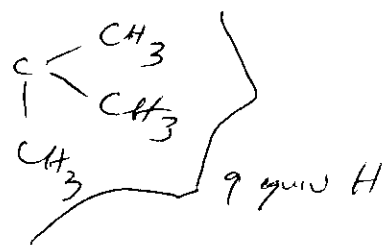
3 degrees from multiple bonds $\Rightarrow$ no rings

^1H NMR

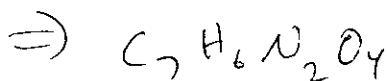
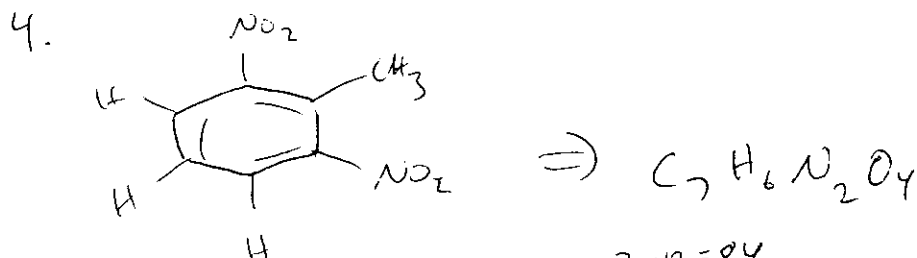
9.13 ppm



1.29 ppm, 9H $\Rightarrow$



5 chem. equiv C



$7 \times 12 = 84$

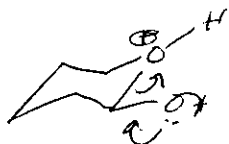
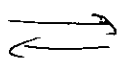
$6 \times 1 = 6$

$14 \times 2 = 28$

$16 \times 4 = 64$

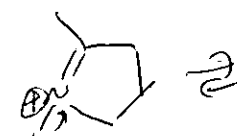
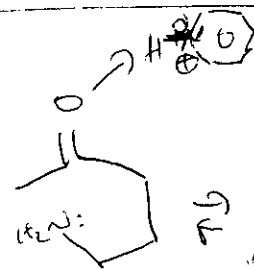
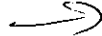
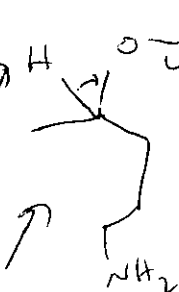
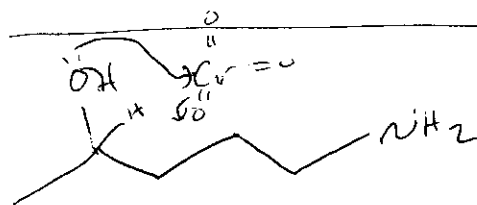
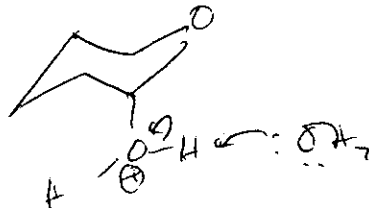
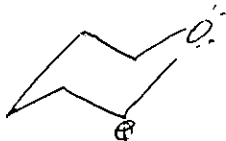
$m/z = 182$ (w/ 1 e^- removed)

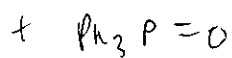
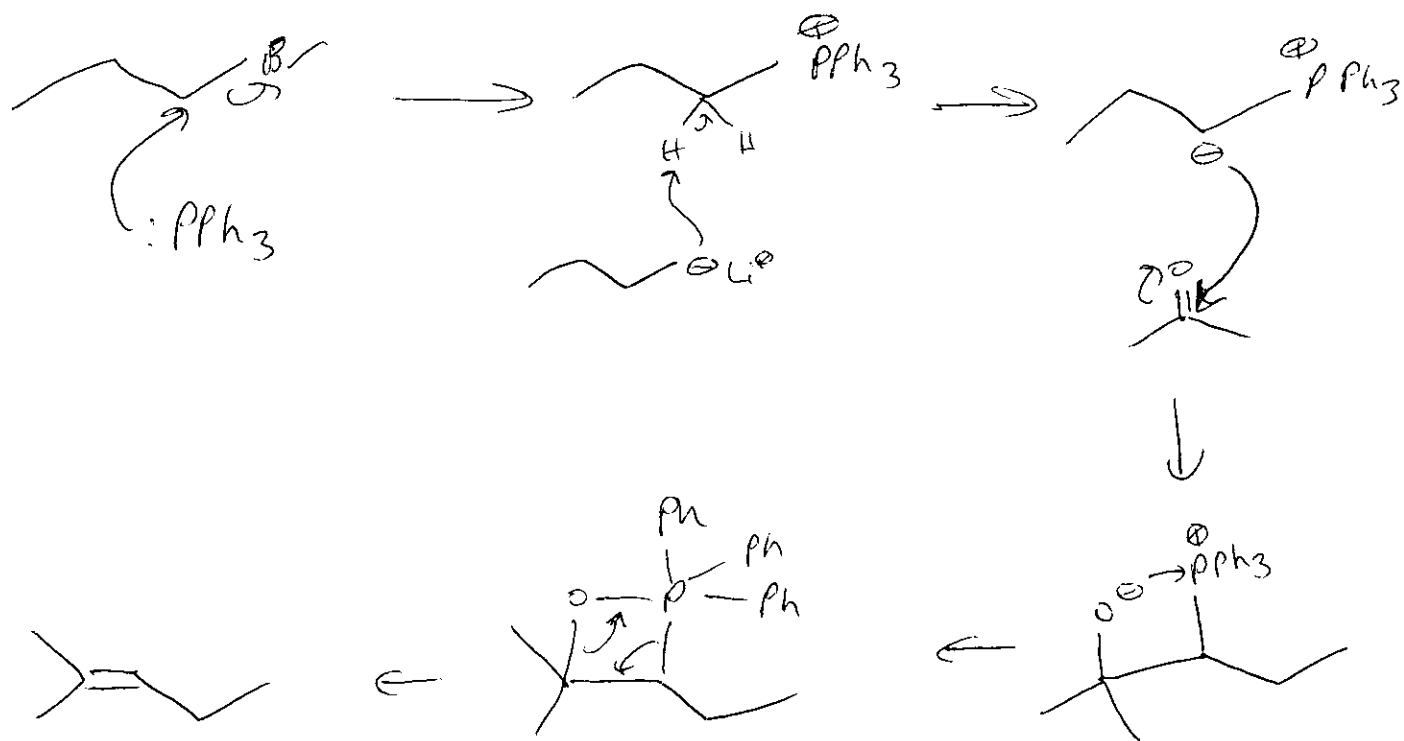
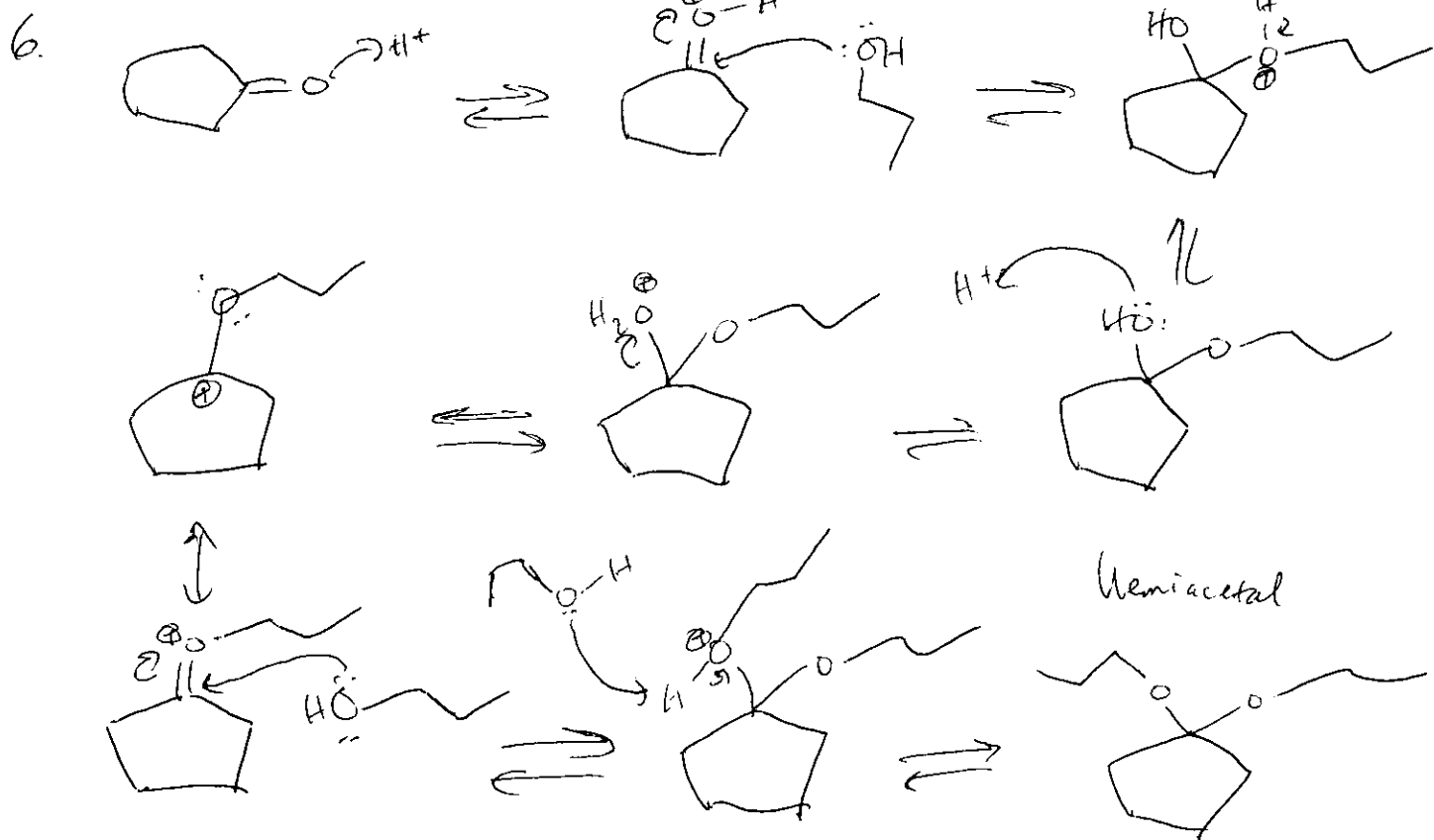
5.

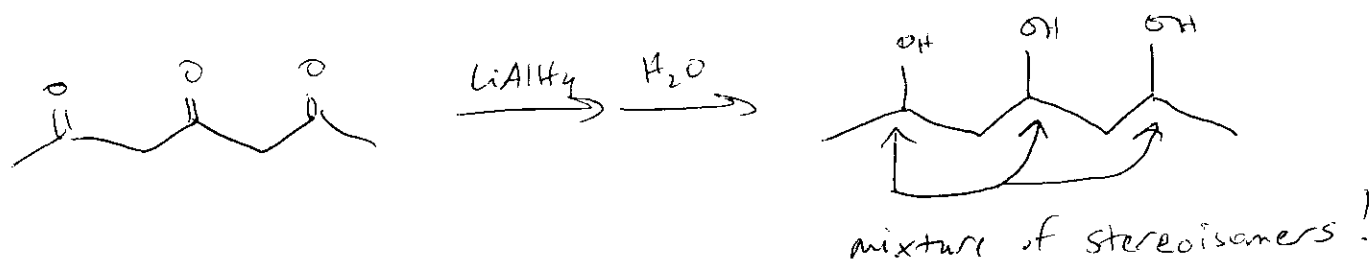
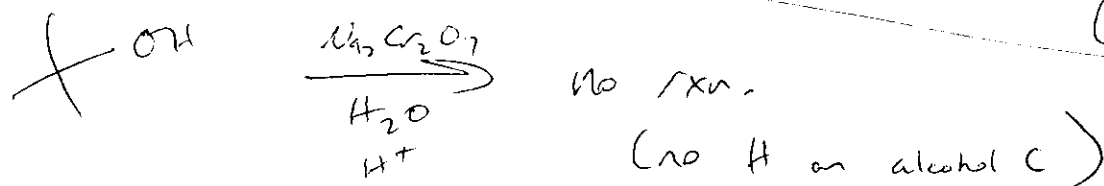
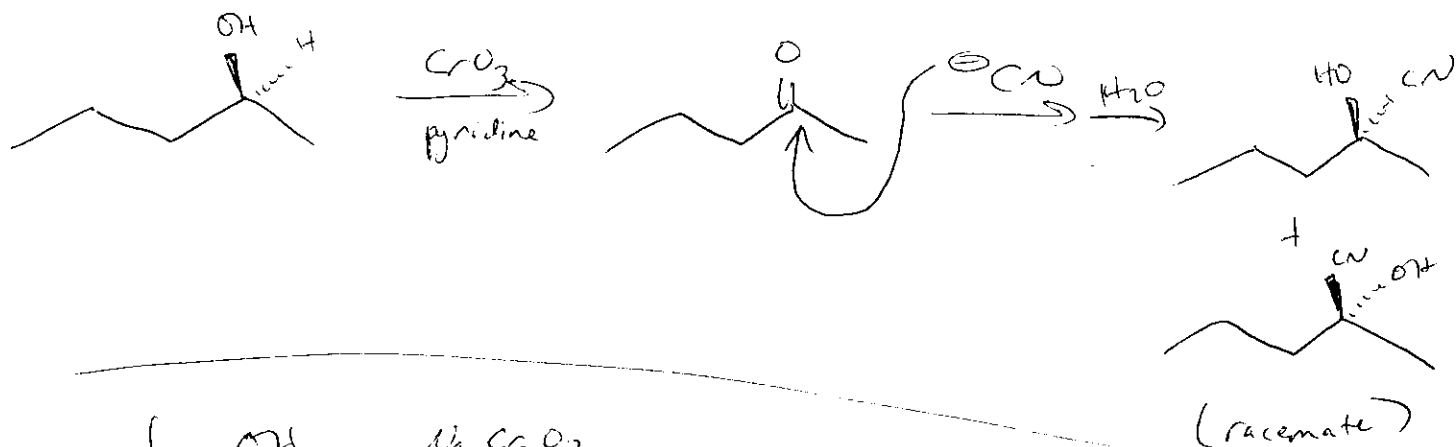
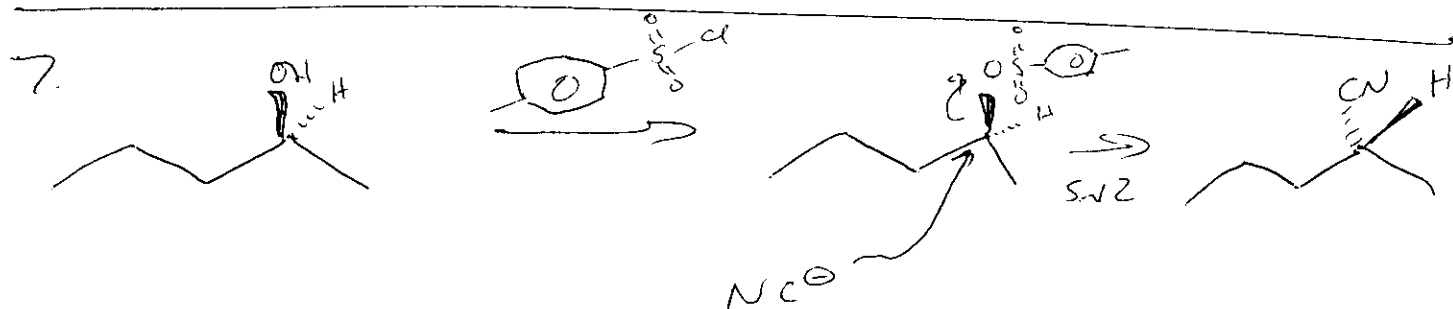


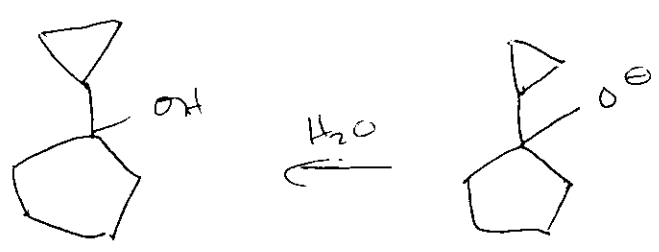
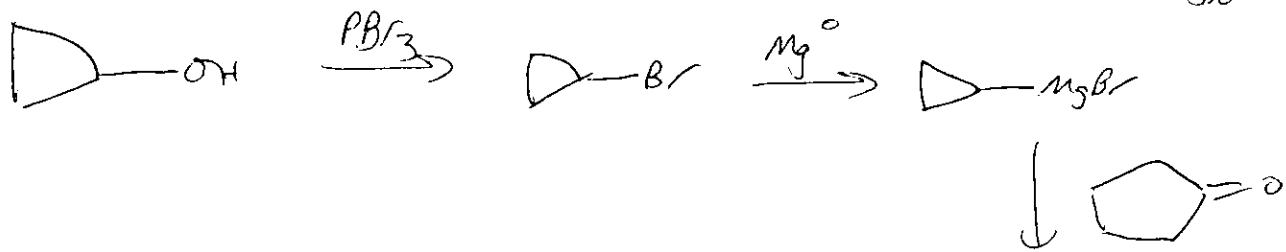
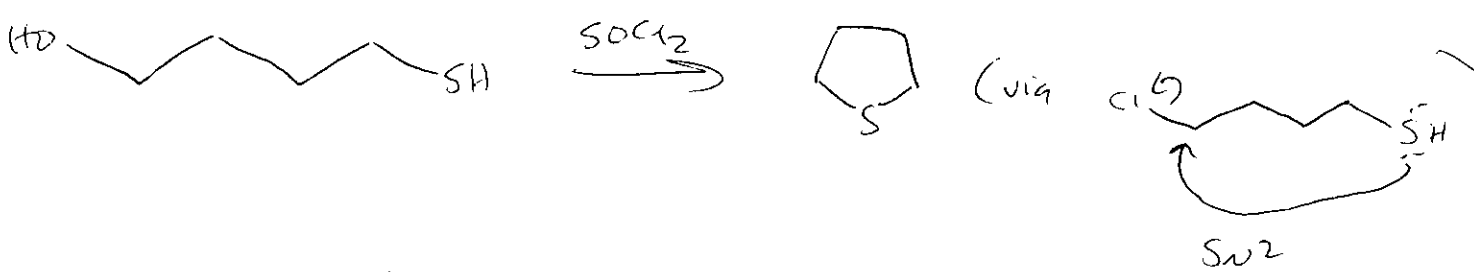
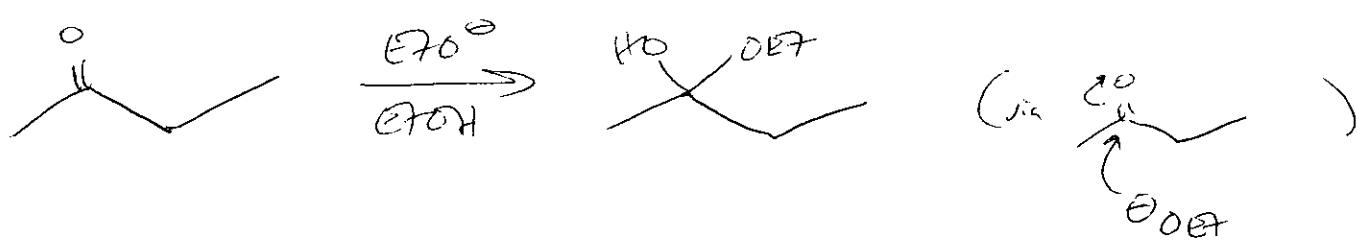
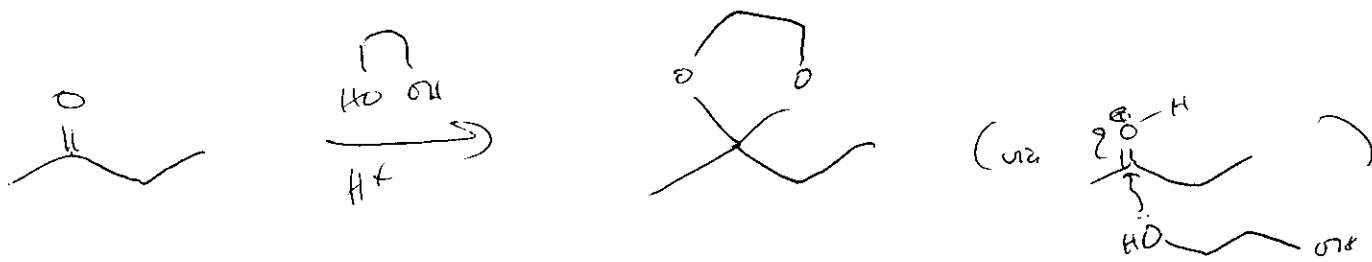
ROH can attach either face

⊙ (two mechanisms ok)

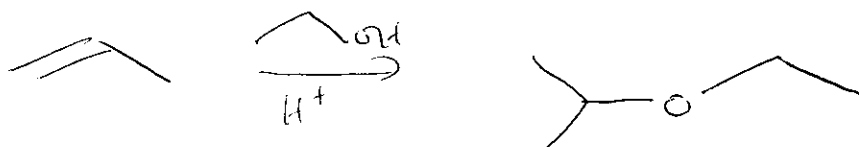
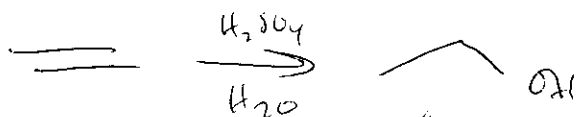
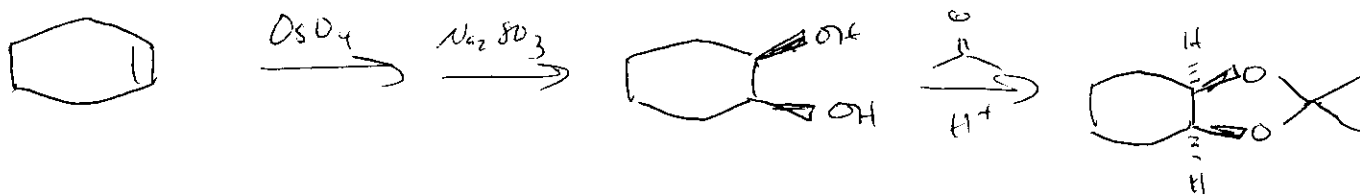




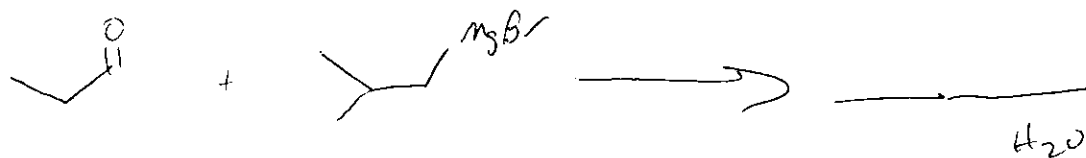
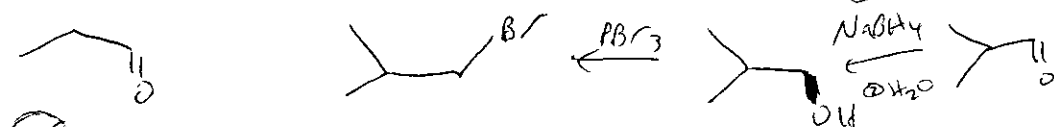
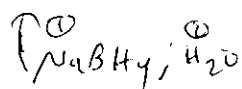
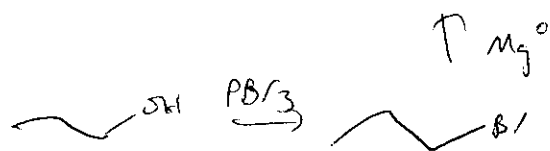
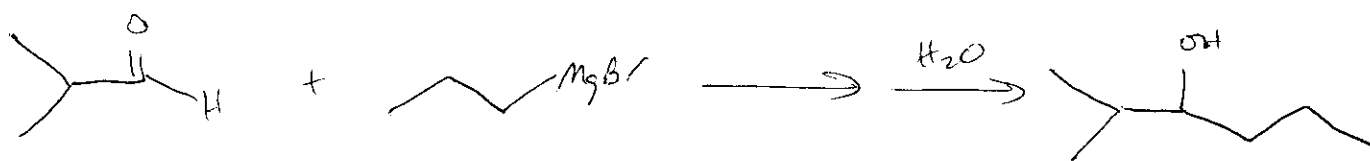
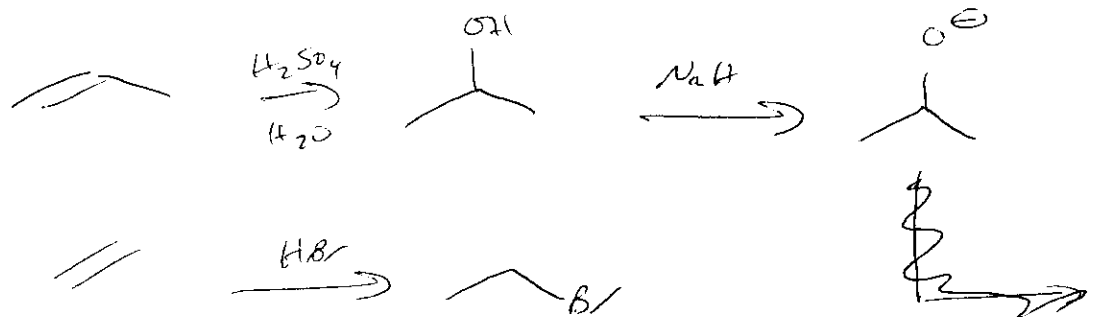


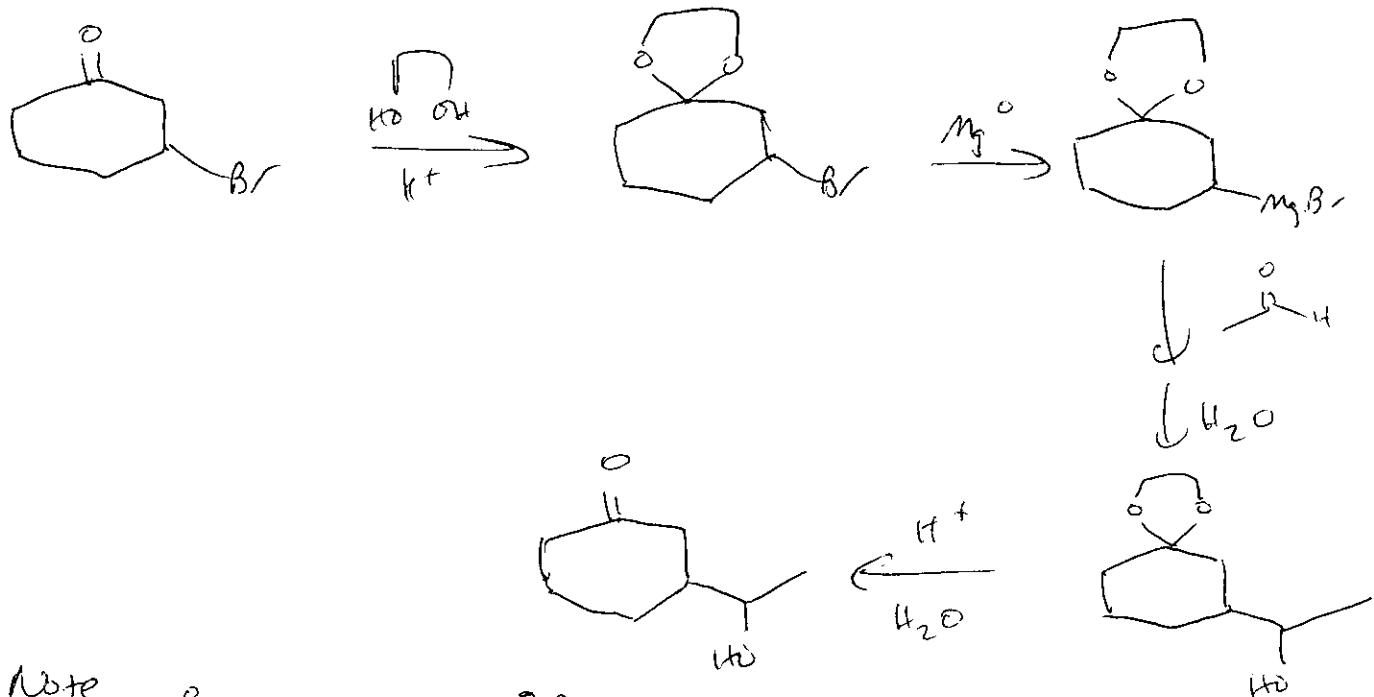


8.



also ... a few other methods





Note



∴ need to form acetal to "protect" C=O

