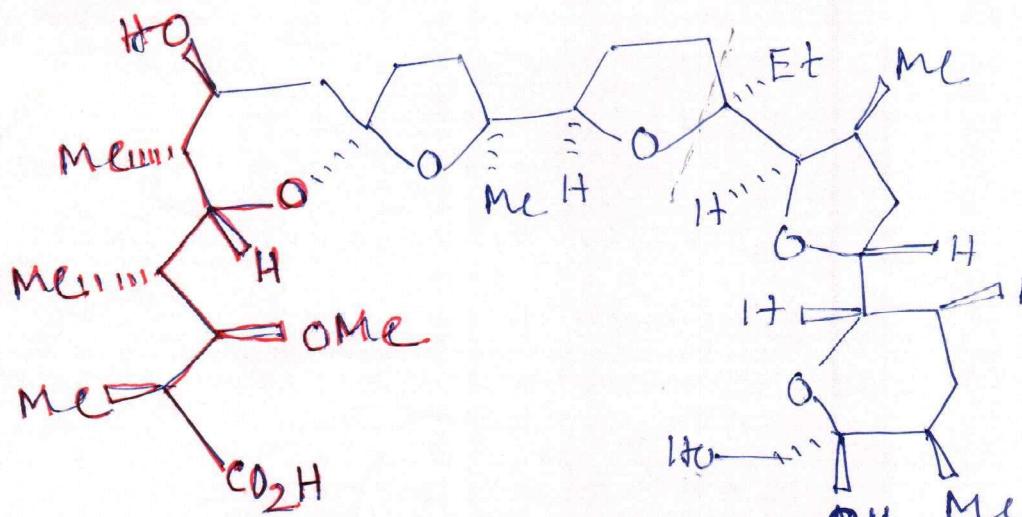


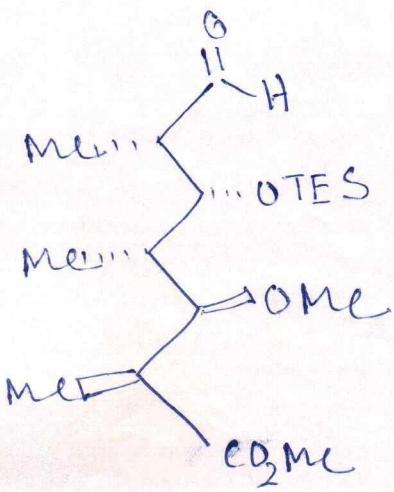
(6)



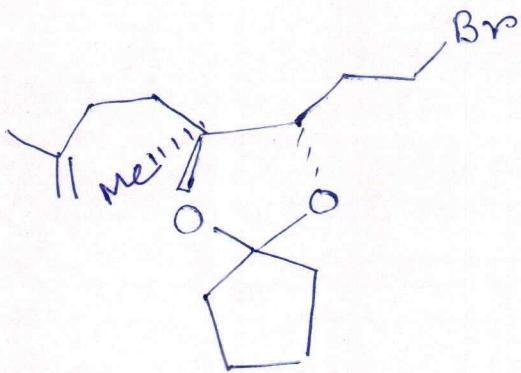
⇒ Highly oxygenated
 ⇒ 17 stereocenters
 ⇒ Antibiotic
 ⇒ Synthesis by Still et al.

JACS, 1980,
102, 2117

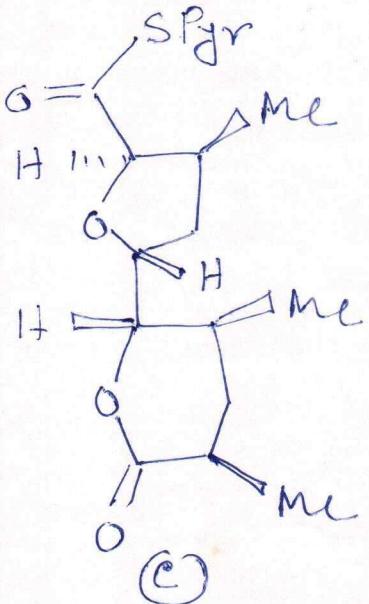
Monensin



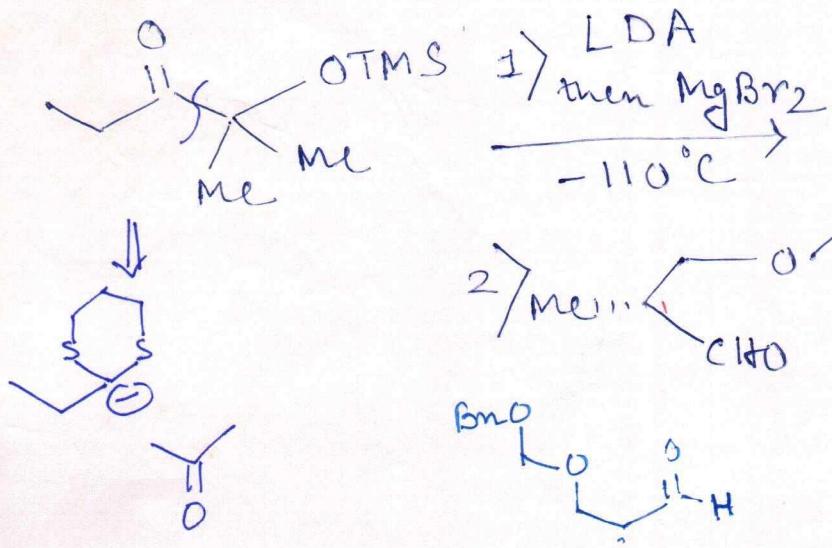
(A)



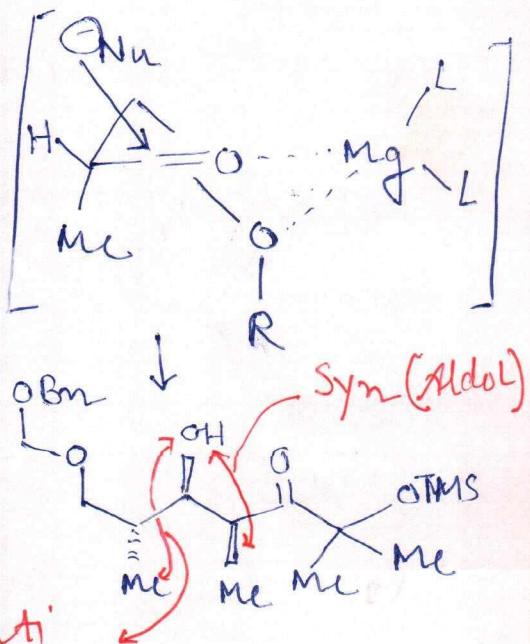
(B)



(C)



(Chelation controlled addition) anti



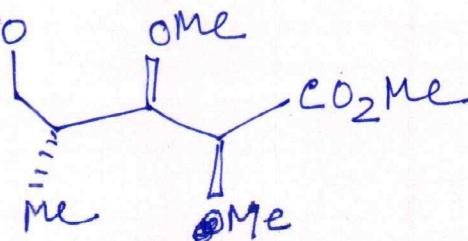
1) H_5IO_6

2) $KN(SiMe_3)_2$

then

Me_2SO_4

OBN



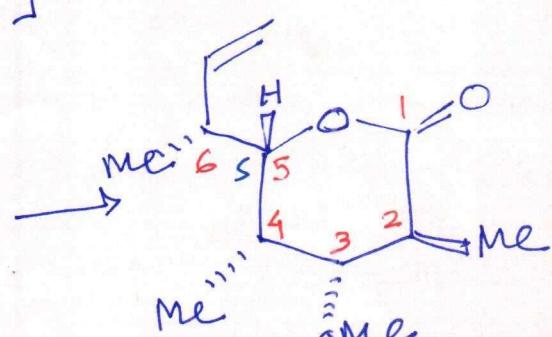
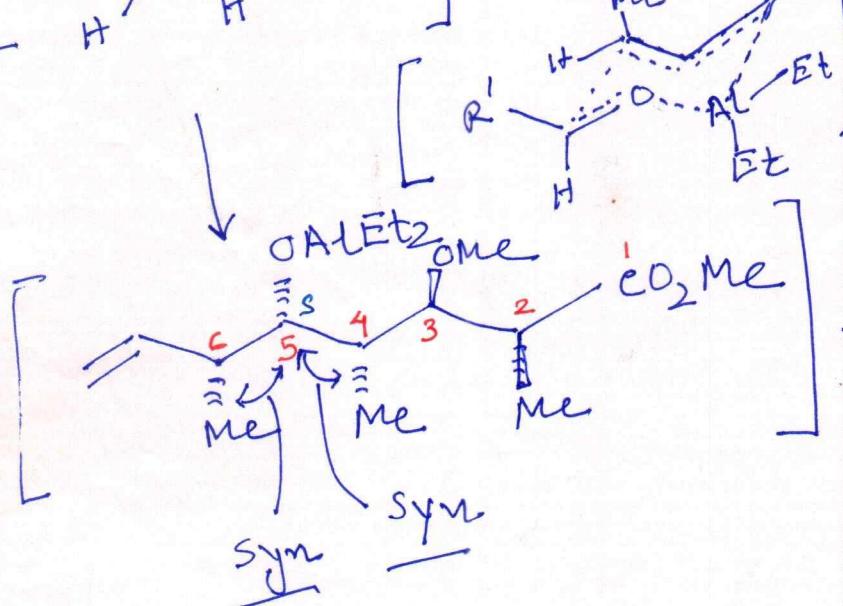
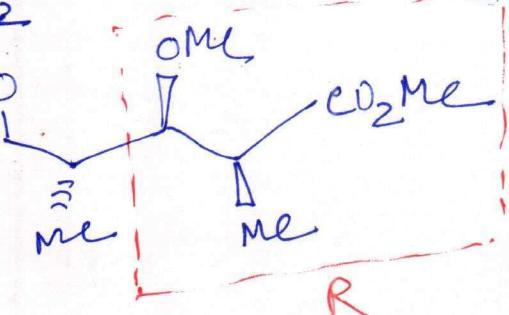
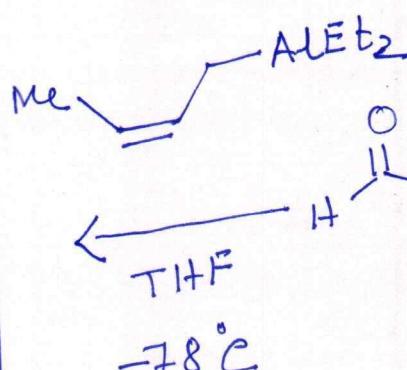
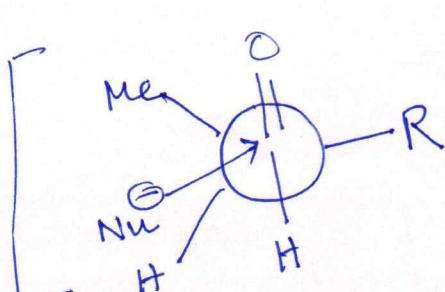
(7)

1) $H_2, 10\%$

Pd-c

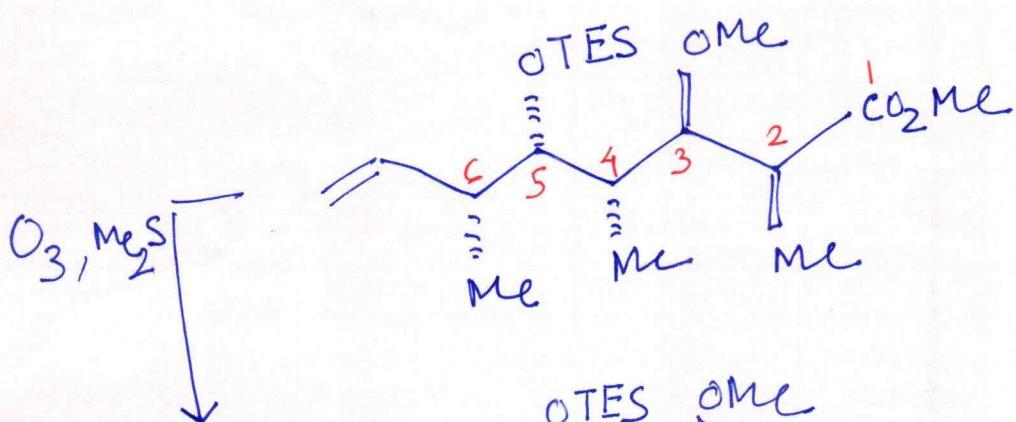
2) $CrO_3 \cdot 2Pyr$

(Collins reagent)

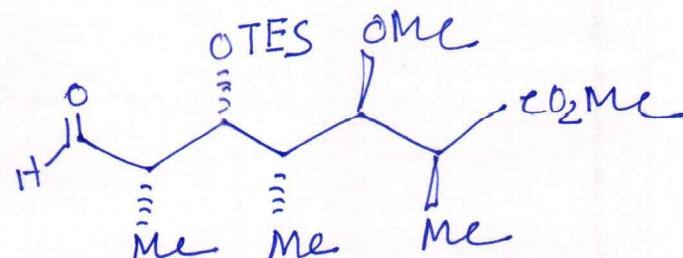


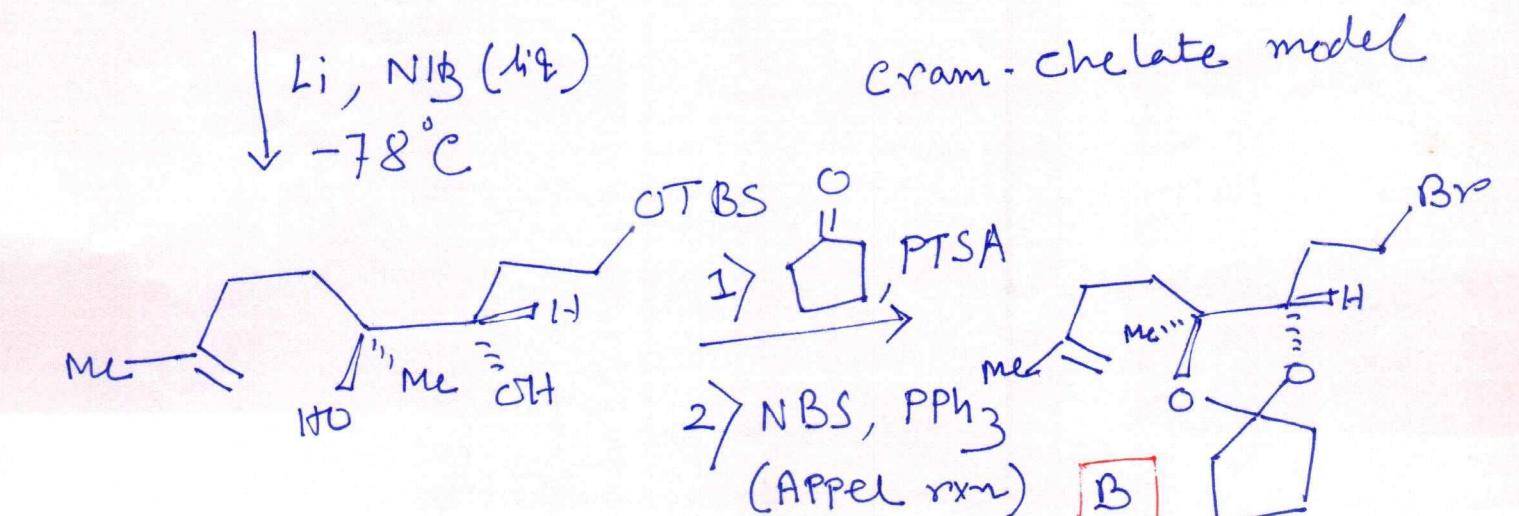
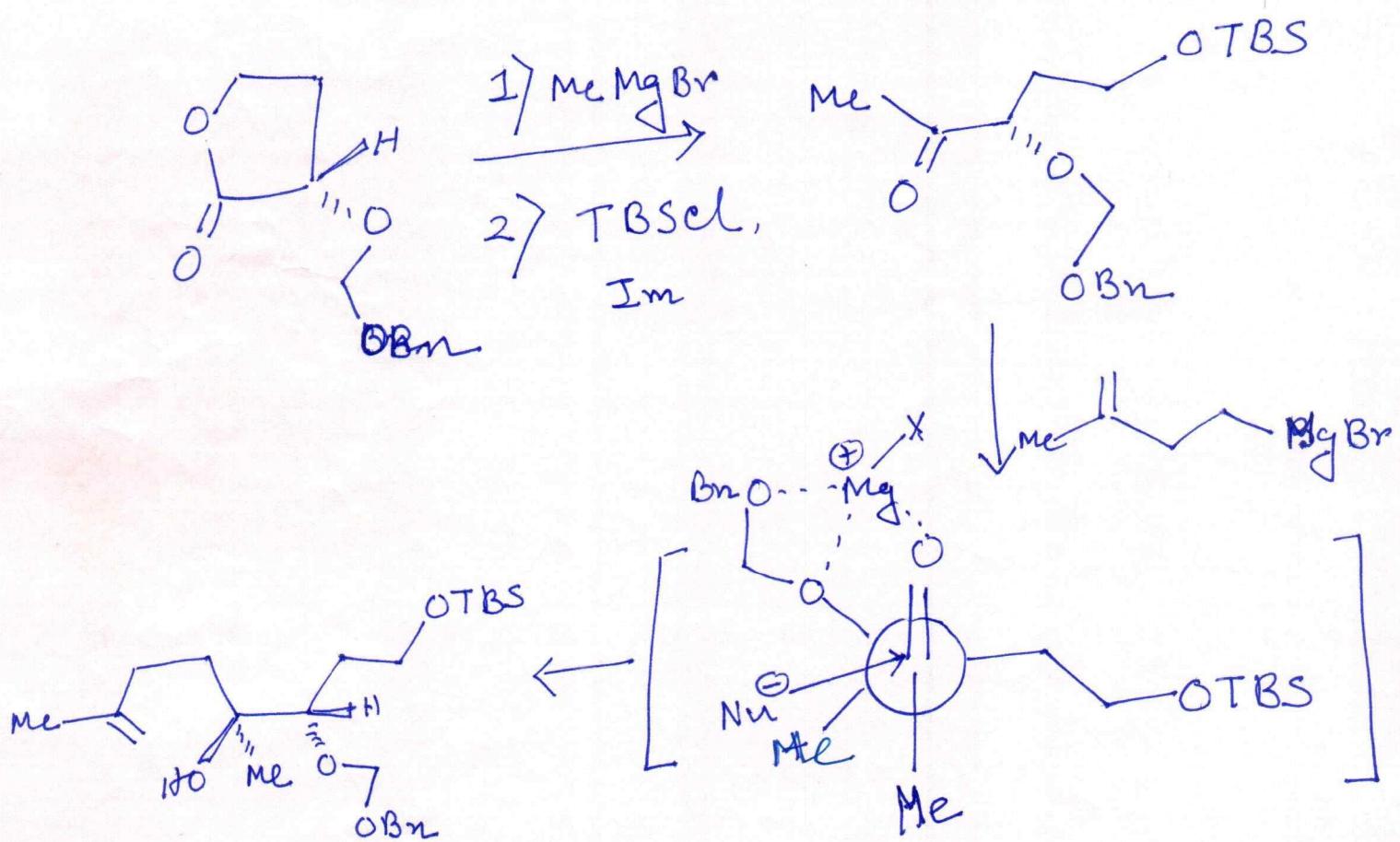
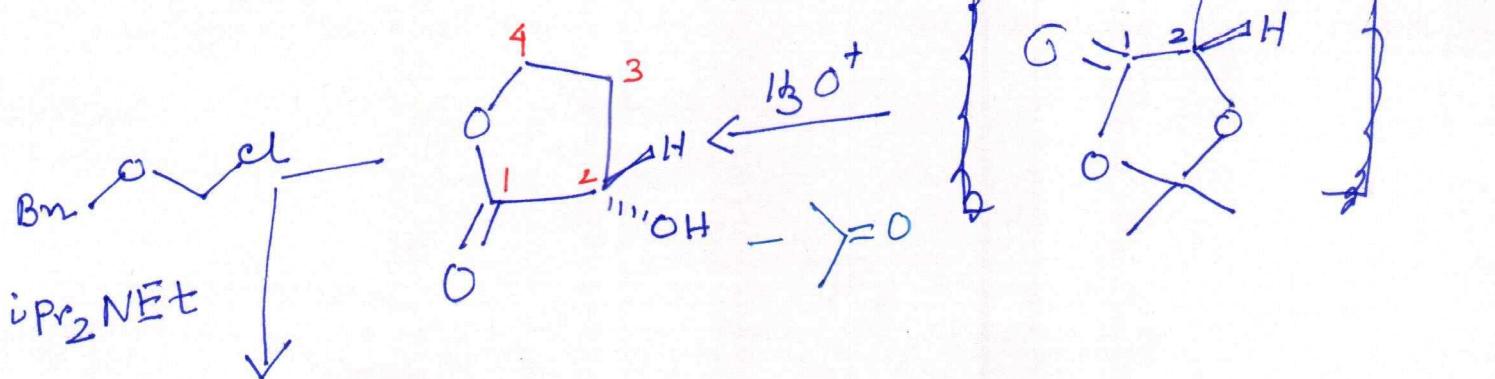
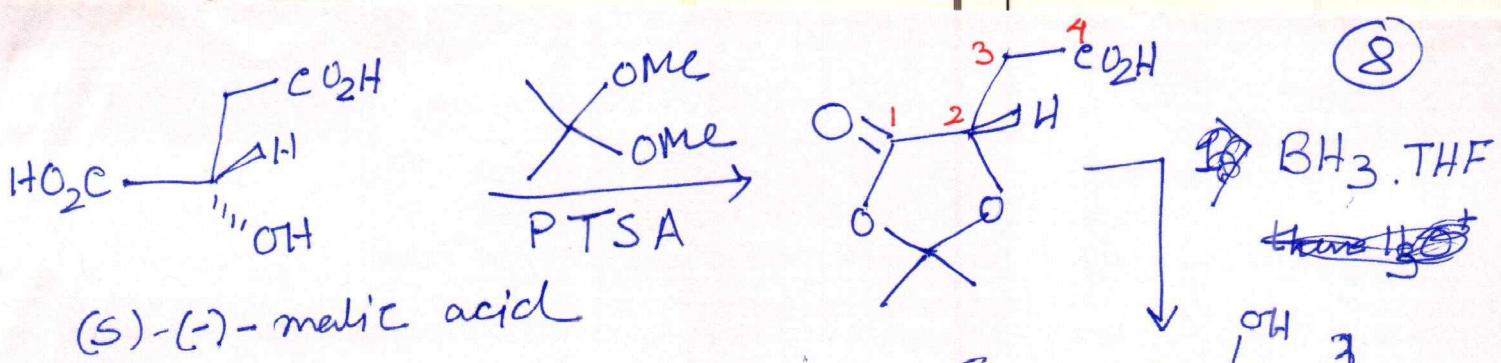
1) $LiOH, CH_2N_2$

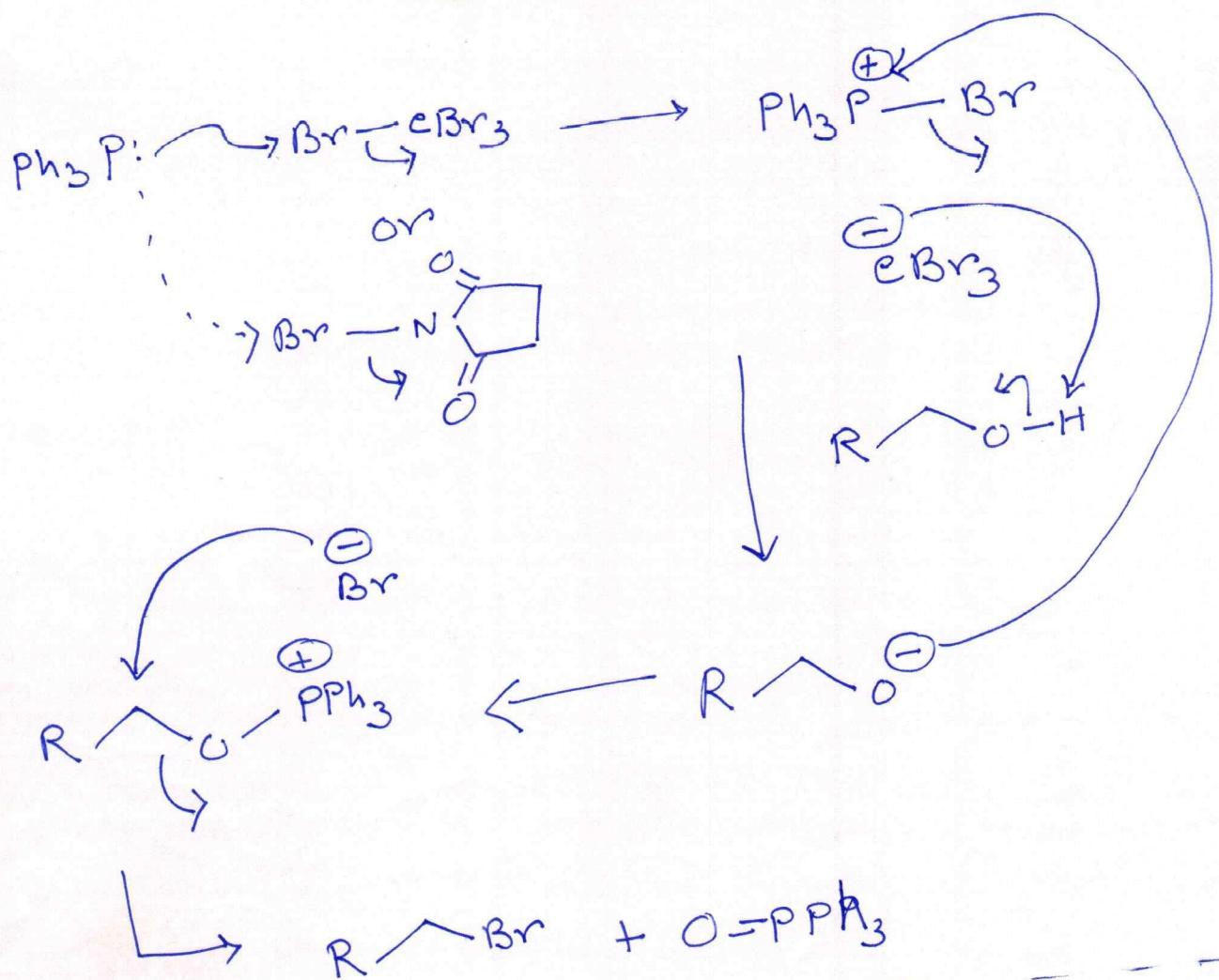
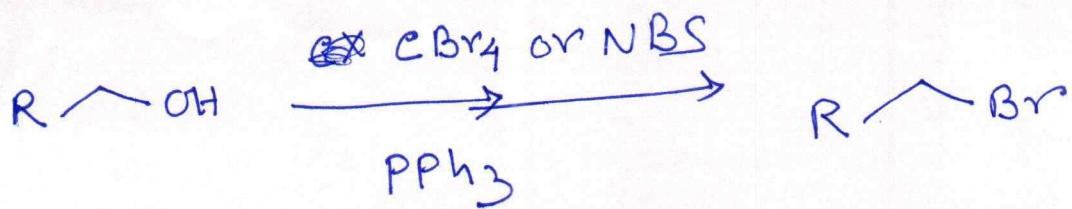
2) Et_3SiOCO_2



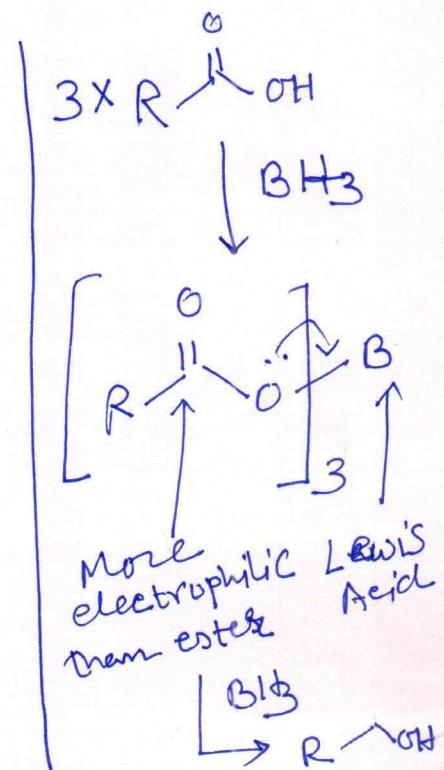
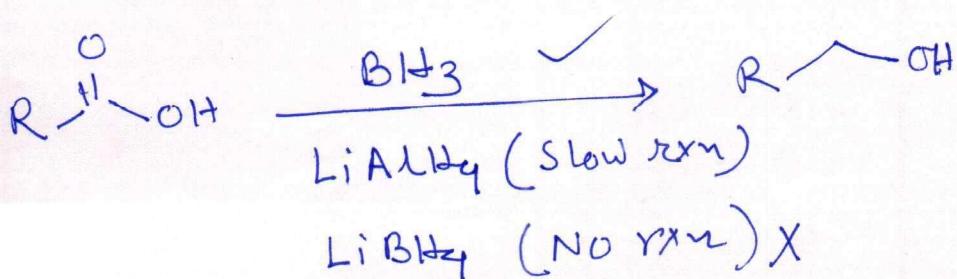
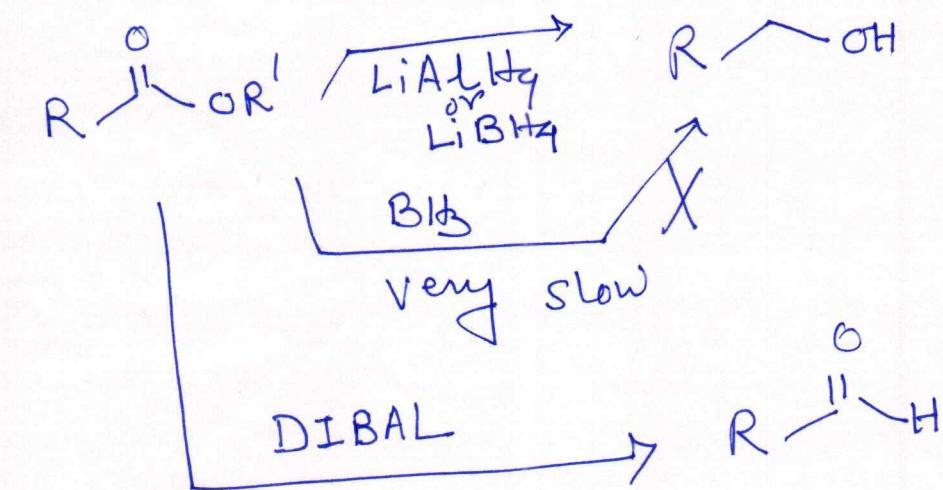
A

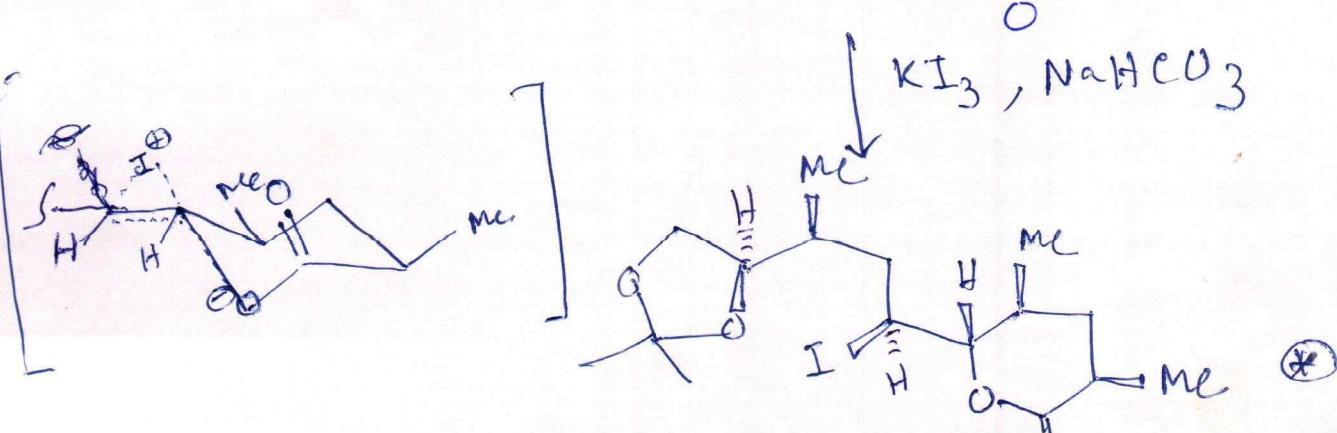
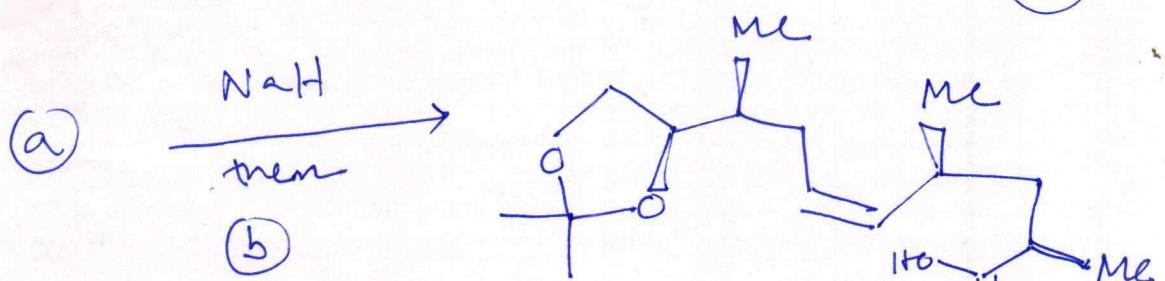
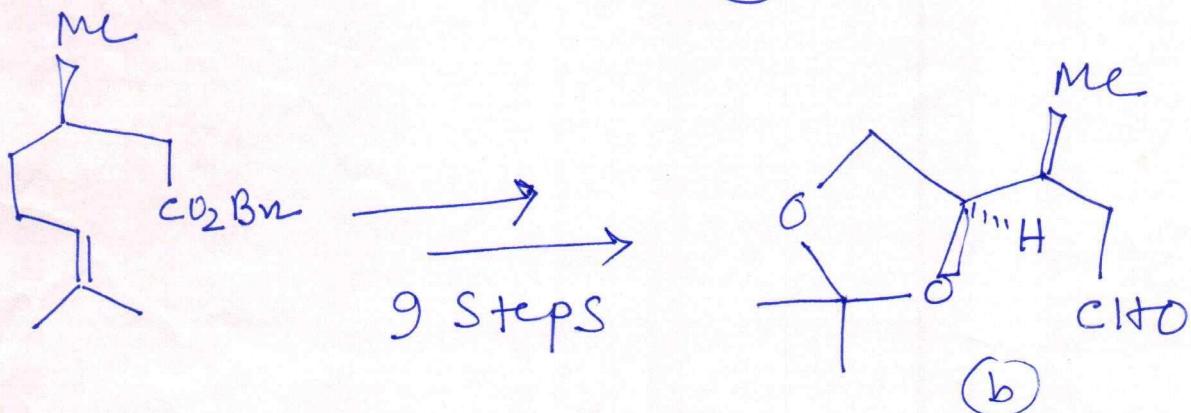
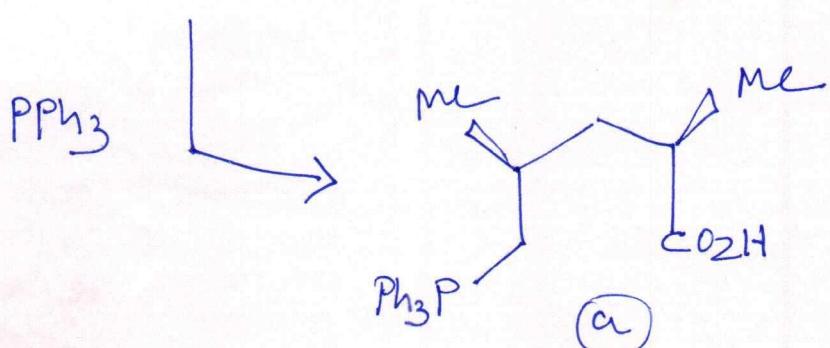
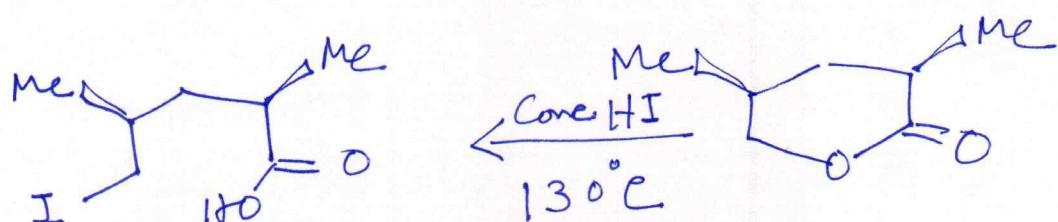
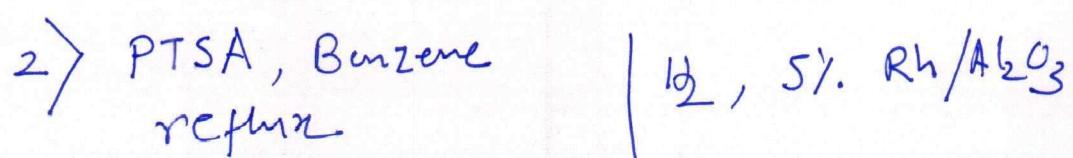
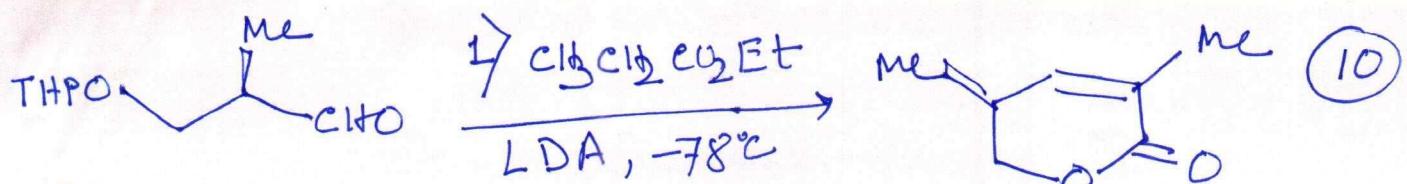






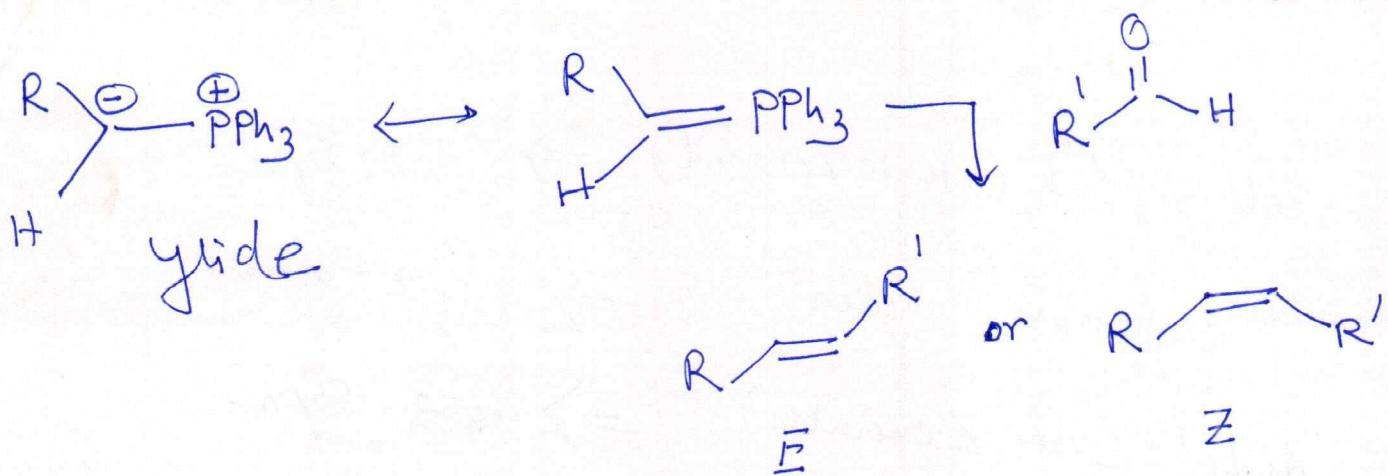
Chemo Selective Reduction





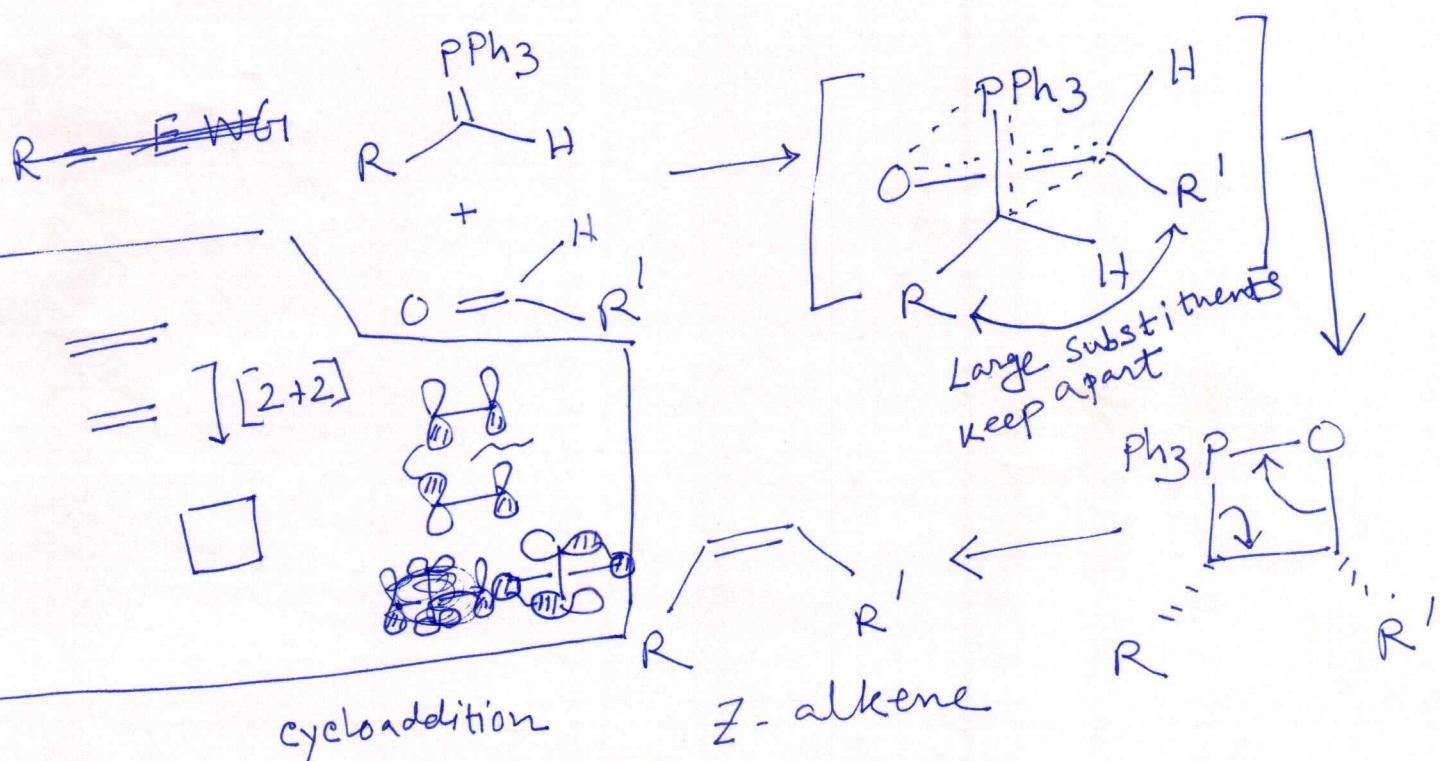
Wittig Reacⁿ:

(10a)

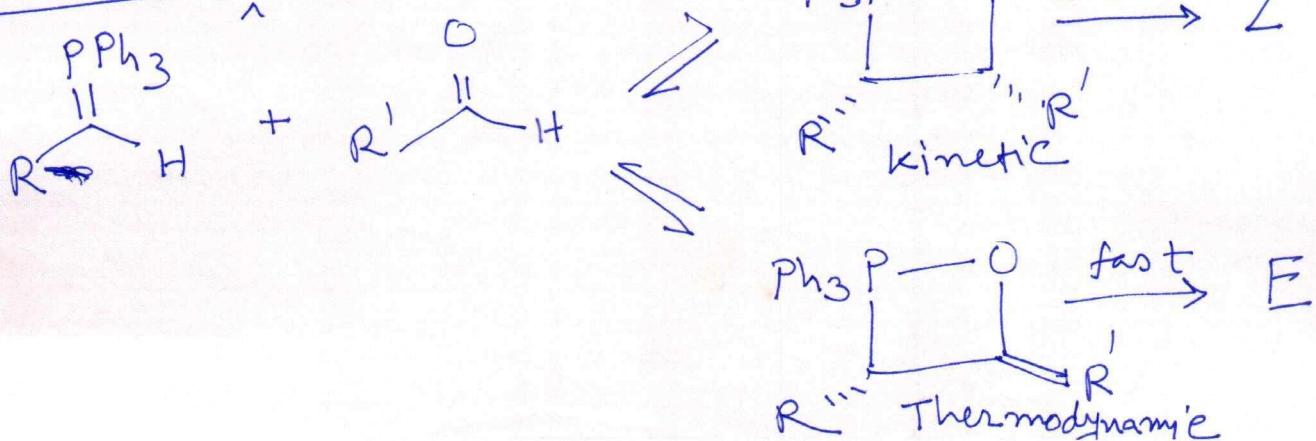


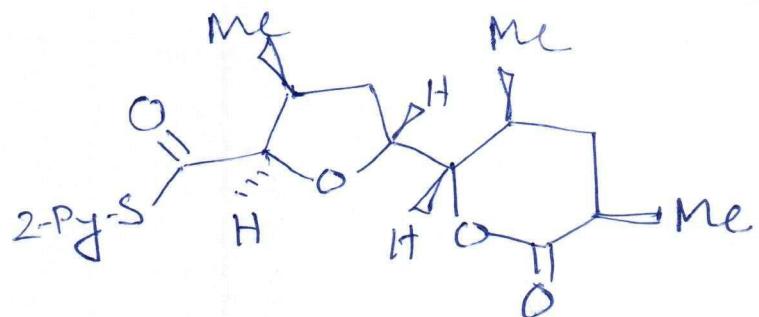
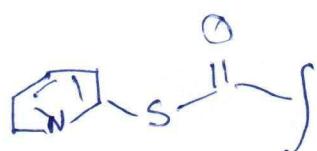
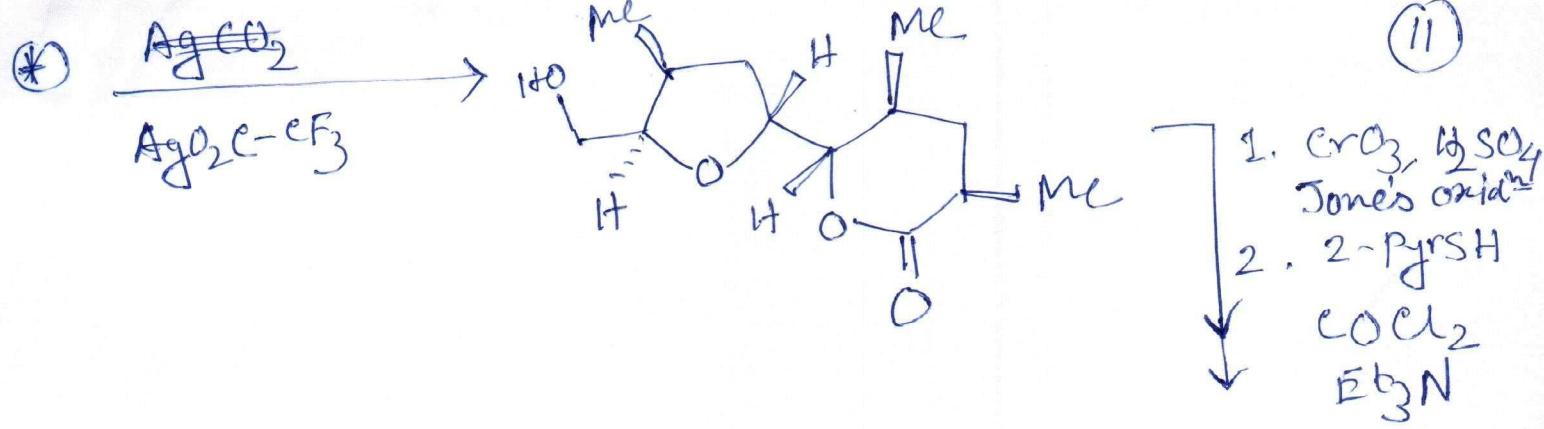
R = Electron withdrawing grp \Rightarrow E major

R = CH_3 \Rightarrow Alkyl .. \Rightarrow Z major

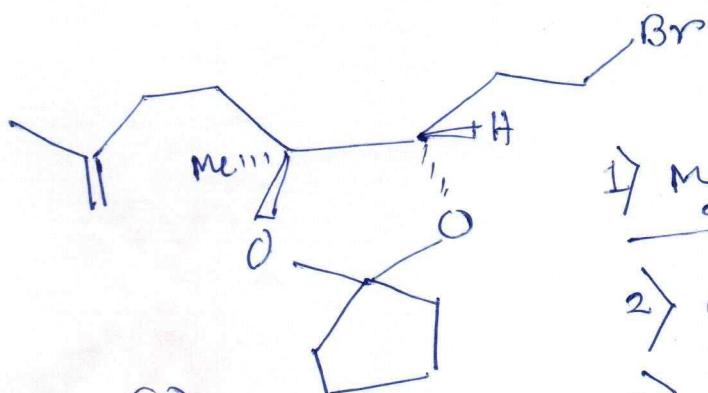


R = EWG (is reversible)

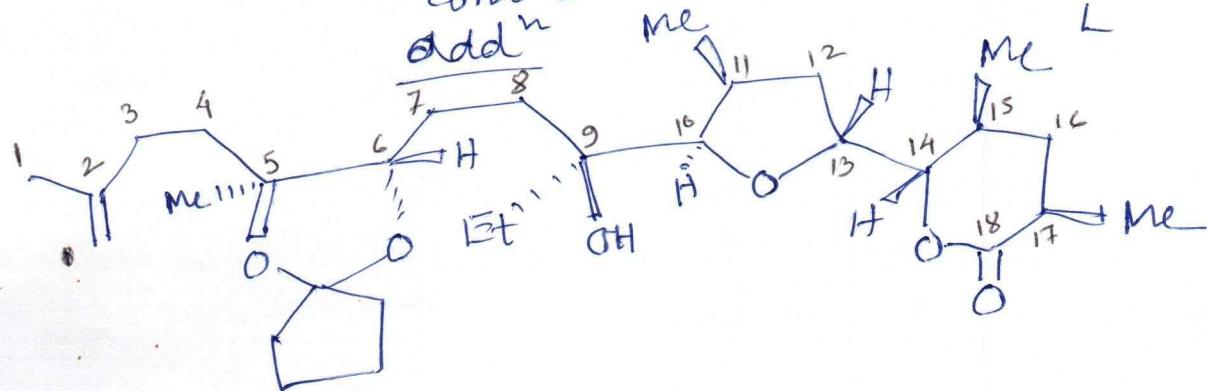
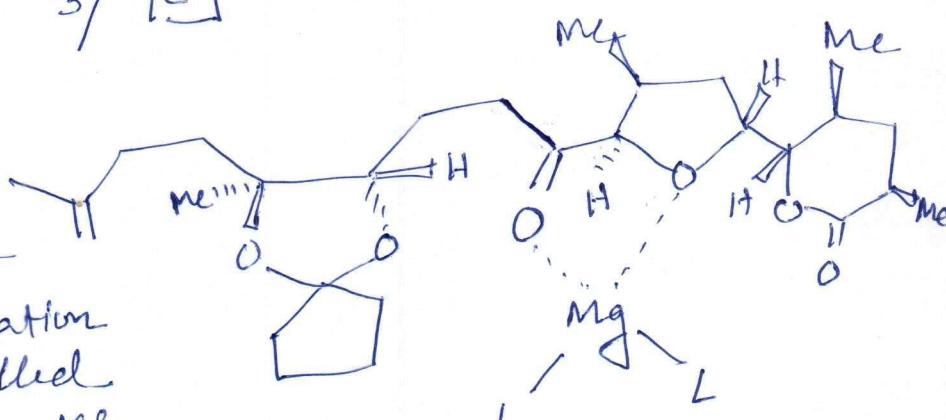




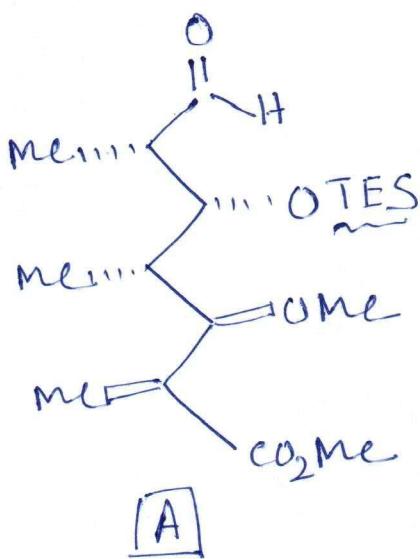
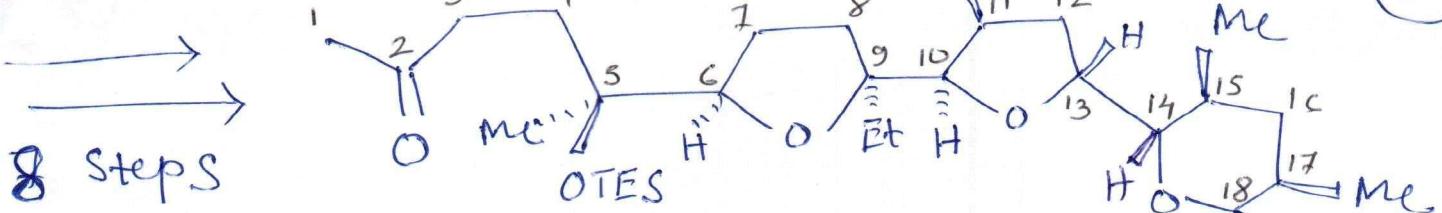
[c]



- 1) Mg
- 2) $\text{CuI}, n\text{-Bu}_3\text{P}$
- 3) [c]

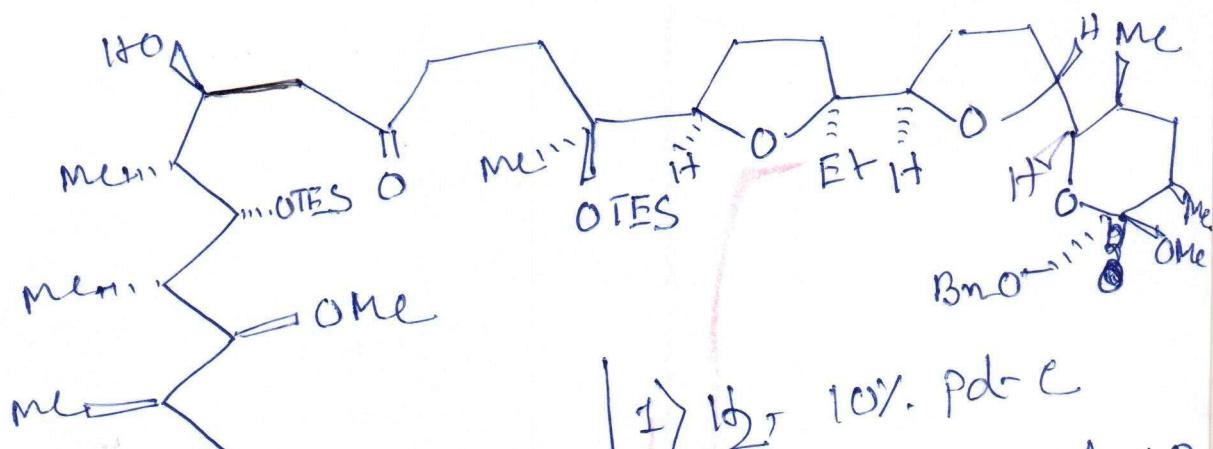
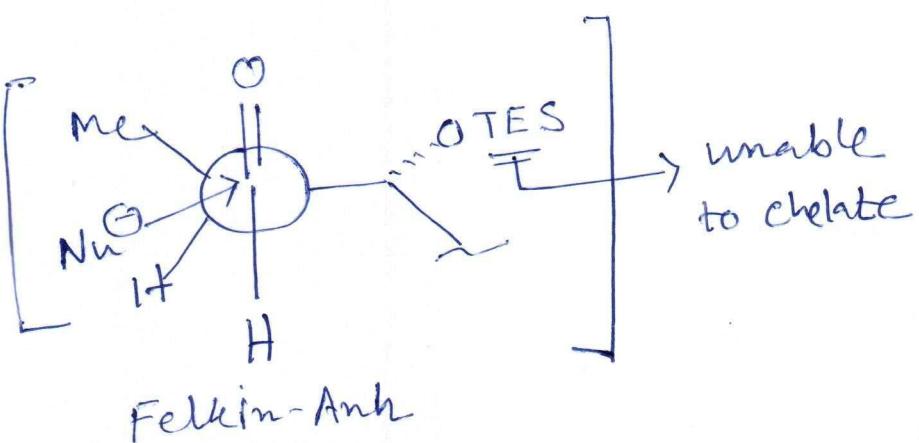


12



1) LDA

2) [A]



- 1) I_2 , 10% Pd-C
- 2) ~~$\text{P-TsO} \cdot \text{PTSA}$~~ , H_2O
- 3) $\text{NaOH}, \text{H}_2\text{O}$

(+)-Monensin sodium salt