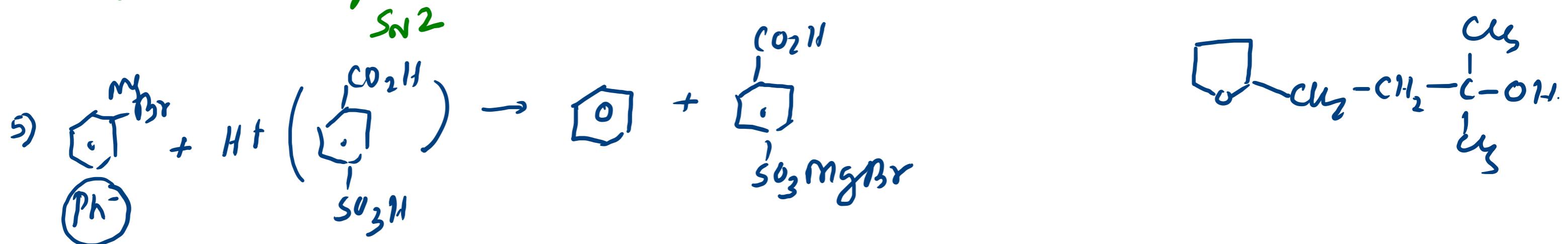
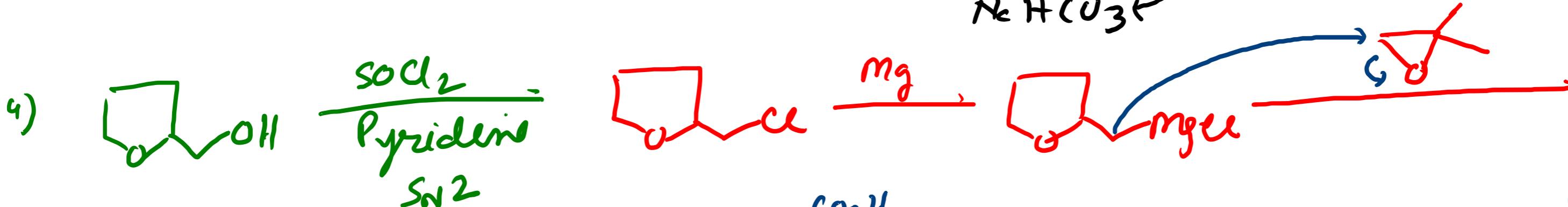
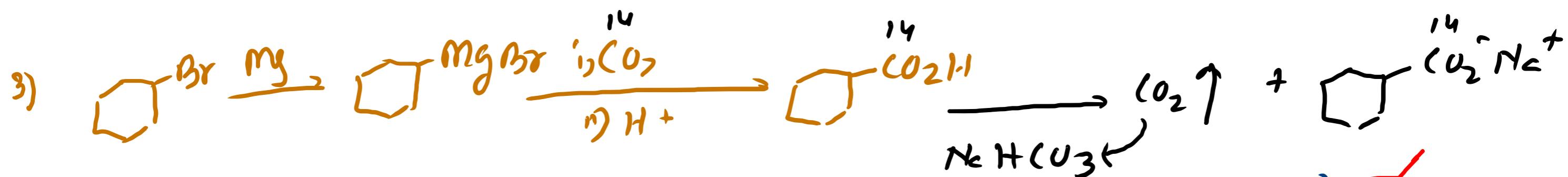
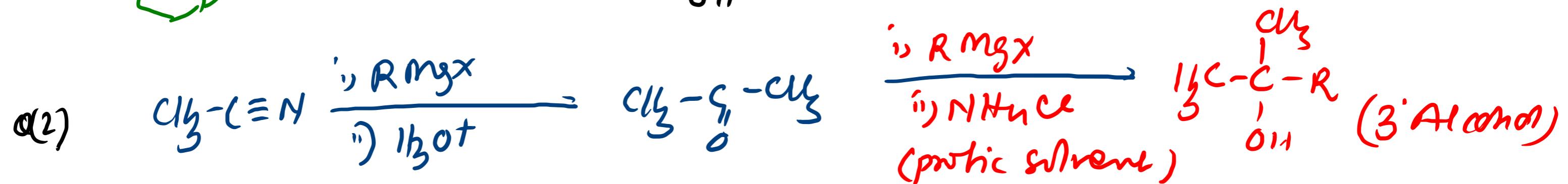
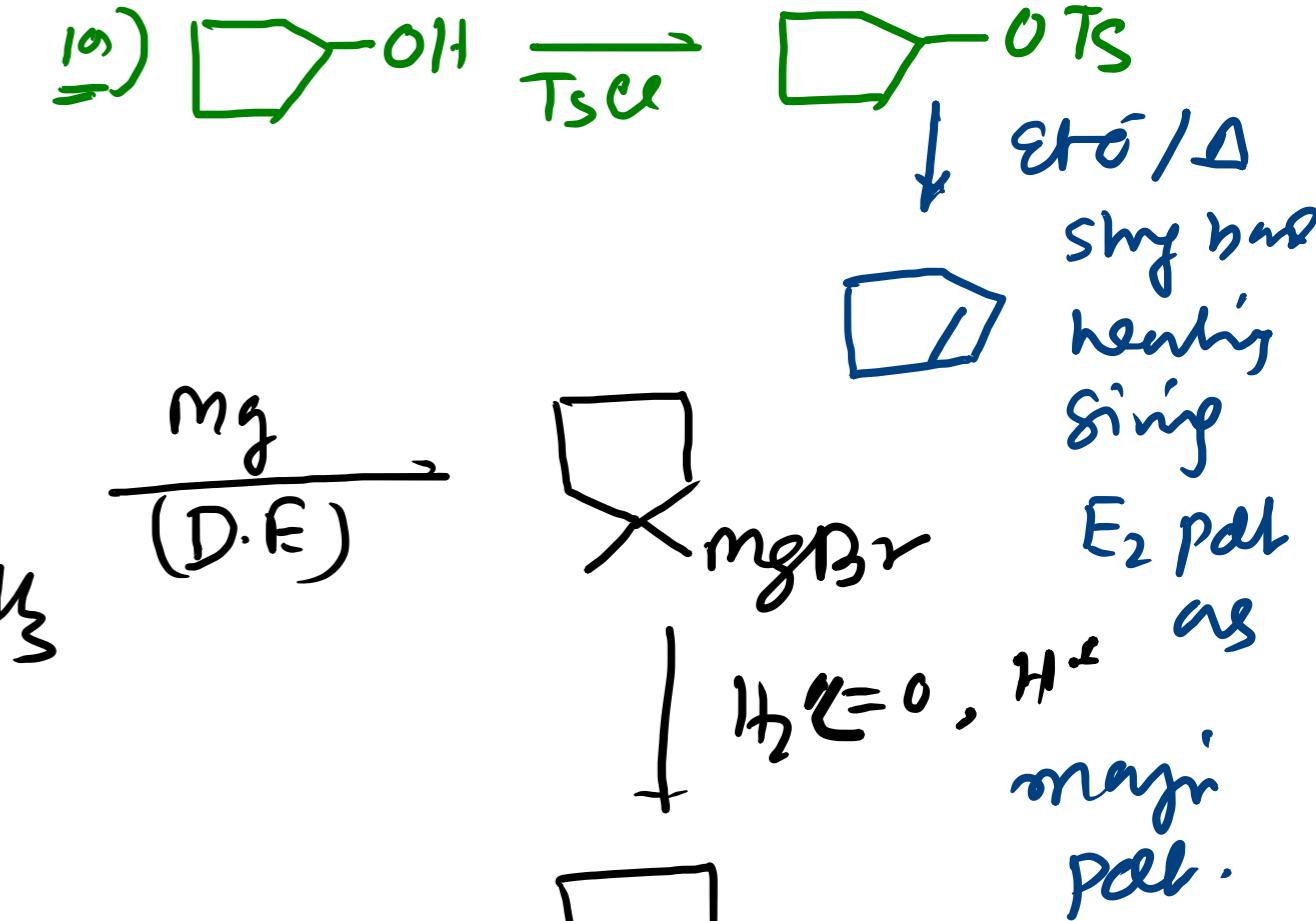
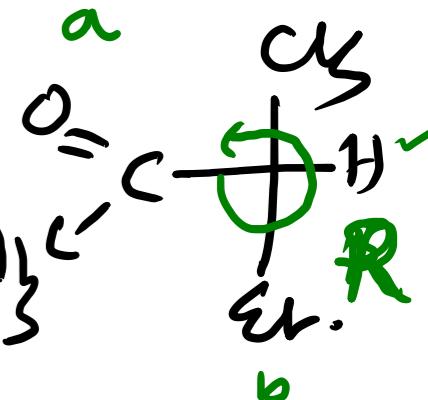
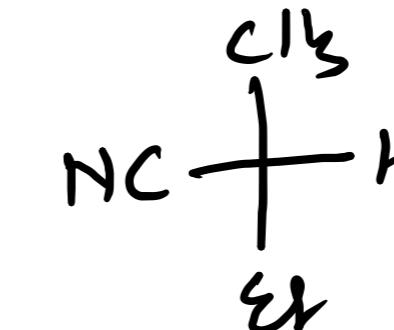
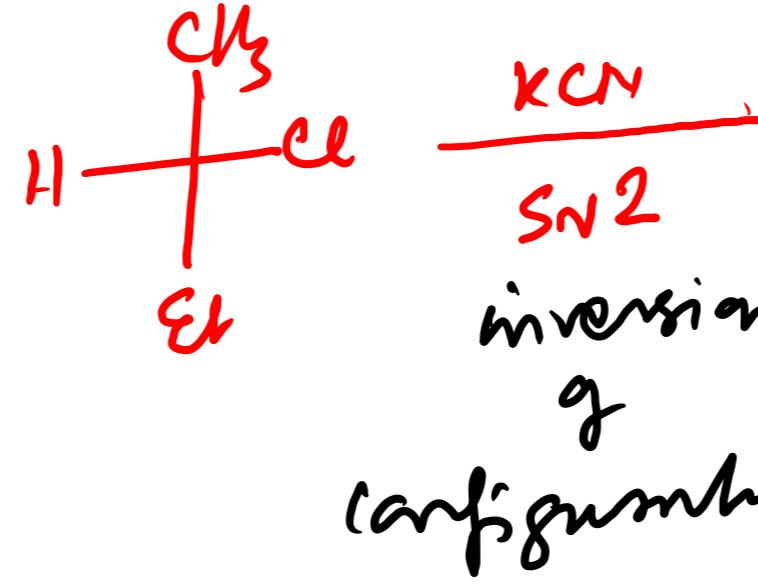
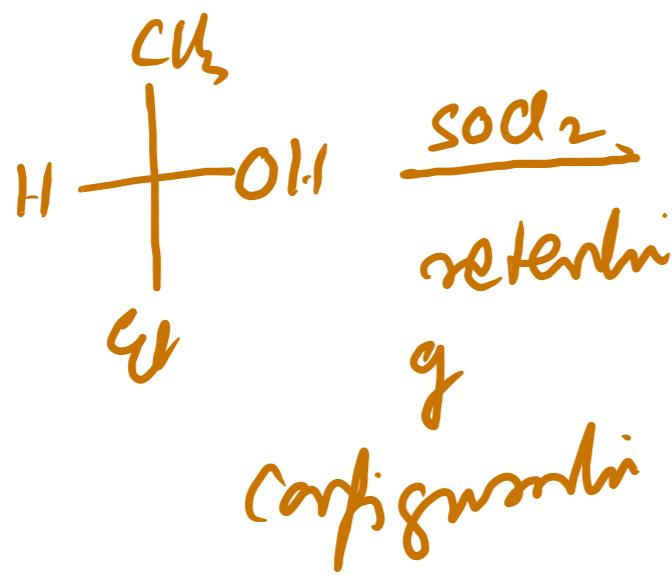
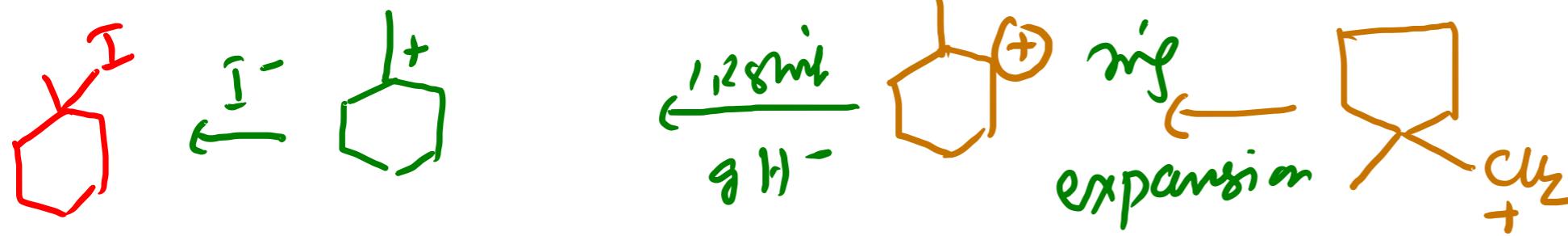
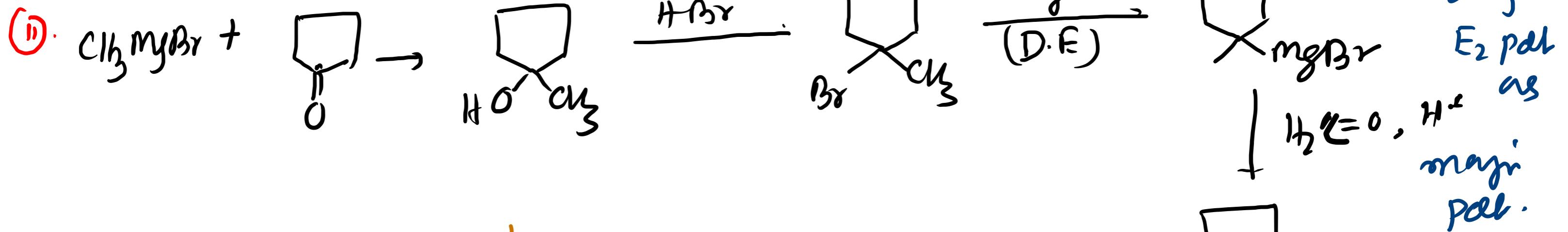
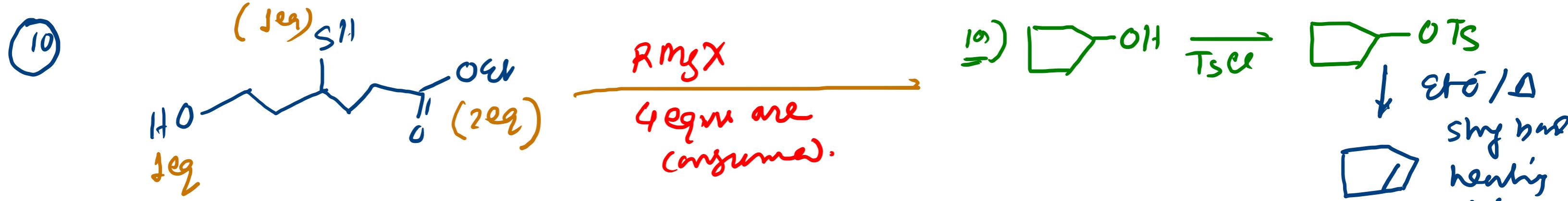


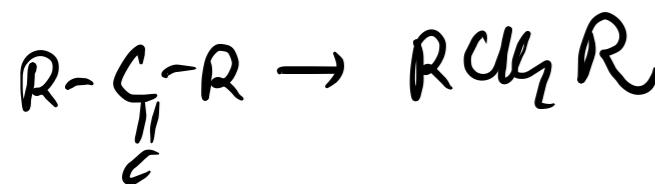
Exercise - 0-2: Alcohols & Ethers





Q2

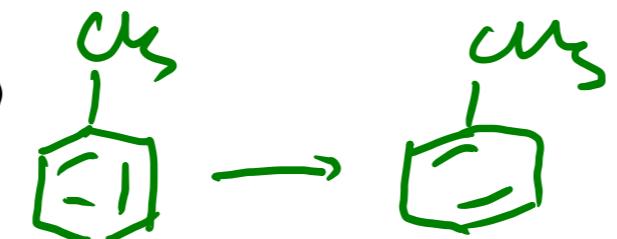
Exercise - II: (Reduction)



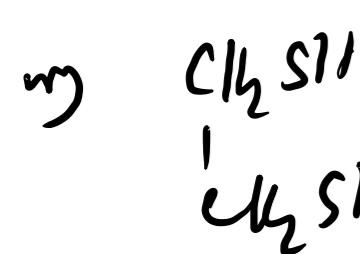
Q1.



Clemmensen (a)

 H_2 (Pd-Bason)Acetylene \rightarrow Alkene.

WKR (a)

any $N:$ (H_2) (f)

Ans: 3

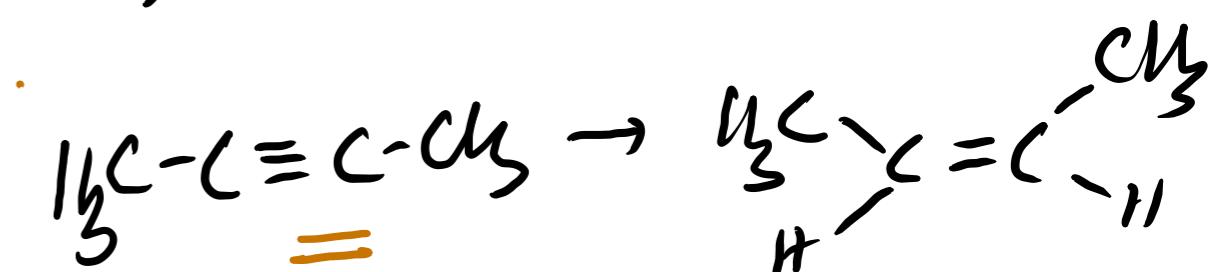


3) done.

B_2H_6 is the best option, yield is very high.

~~H_2 / catalyst / 0~~

A $\xrightarrow{P, R}$

 H_2 (Pd -Bason)Acetylene \rightarrow Cis alkene. Li in $Lq. iN_2H_4$ Acetylene \rightarrow Trans alkene. $N_2H_4 + H_2O_2$ Alkene \rightarrow Alkane. $B_2H_6 + CH_3CO_2H$ (FIBO syn addition)(A) $\rightarrow P, S, R$

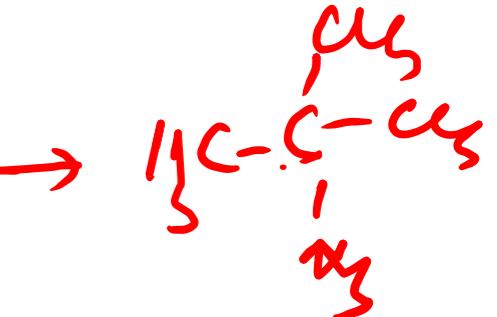
ou)



Balkene.

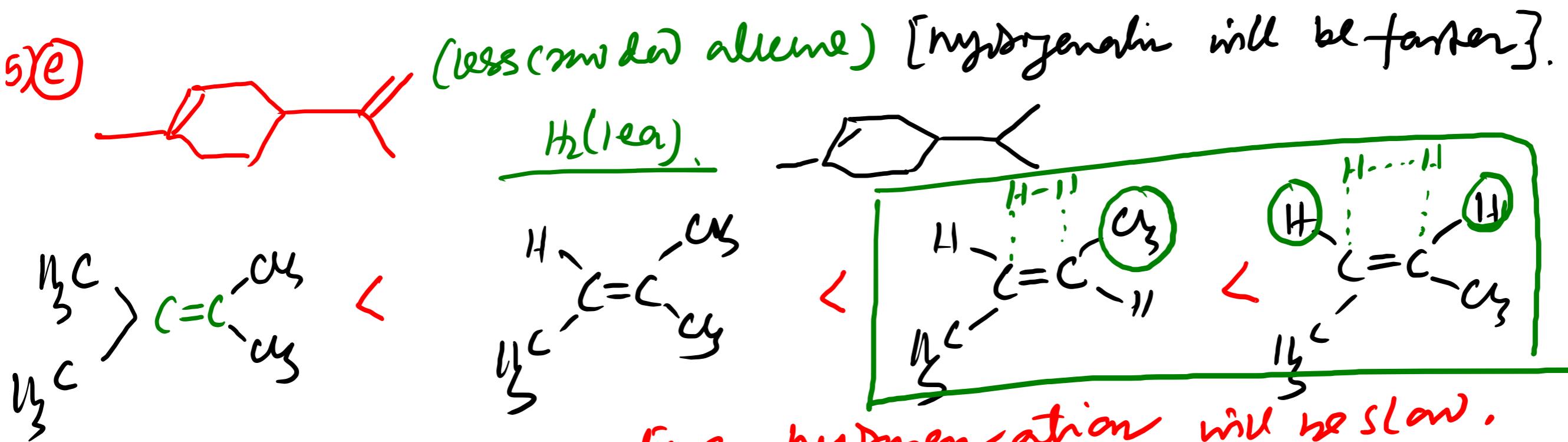
" "

alkene



is possible

5)e)

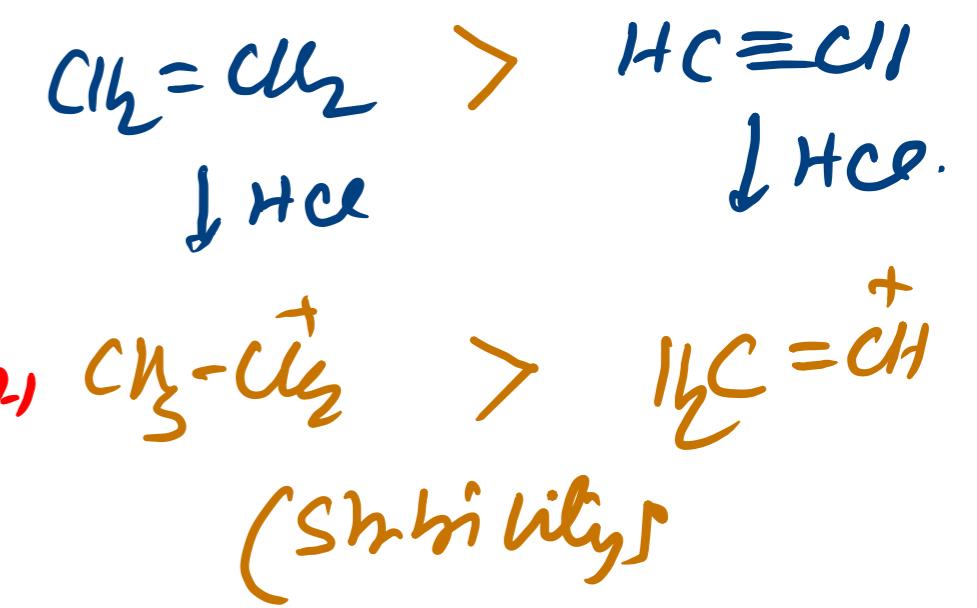


More crowded alkene, m.e.g hydrogenation will be slow.

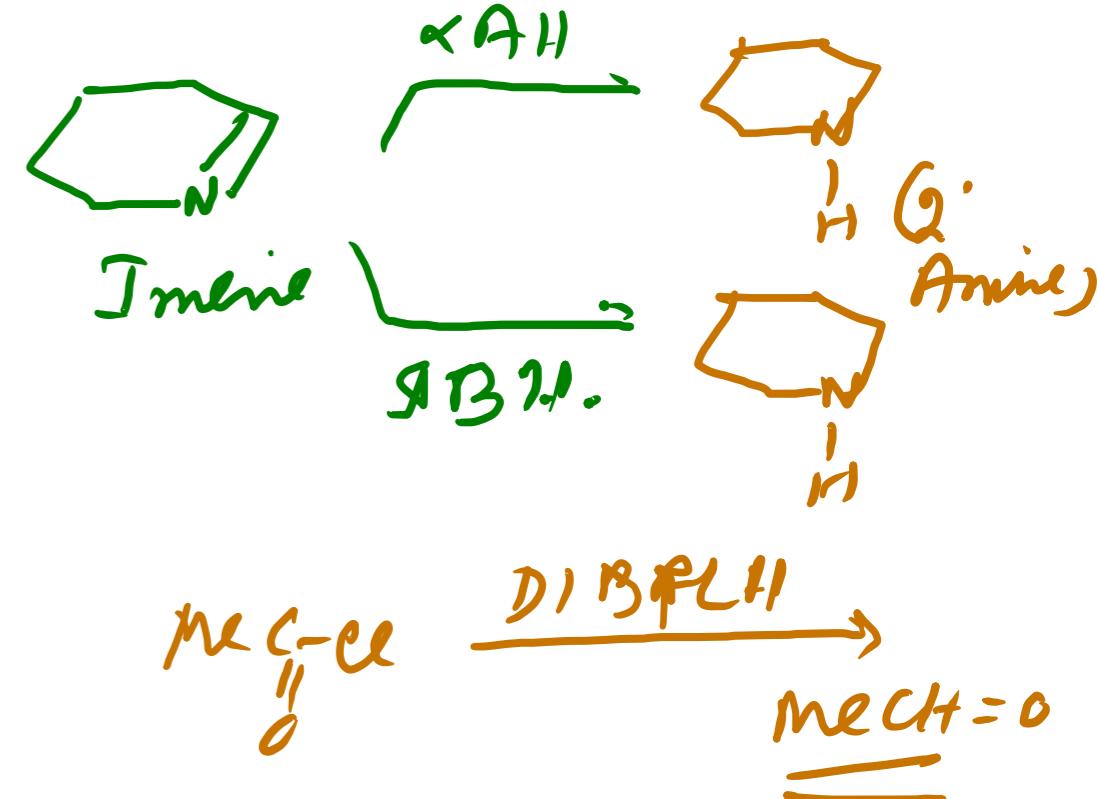
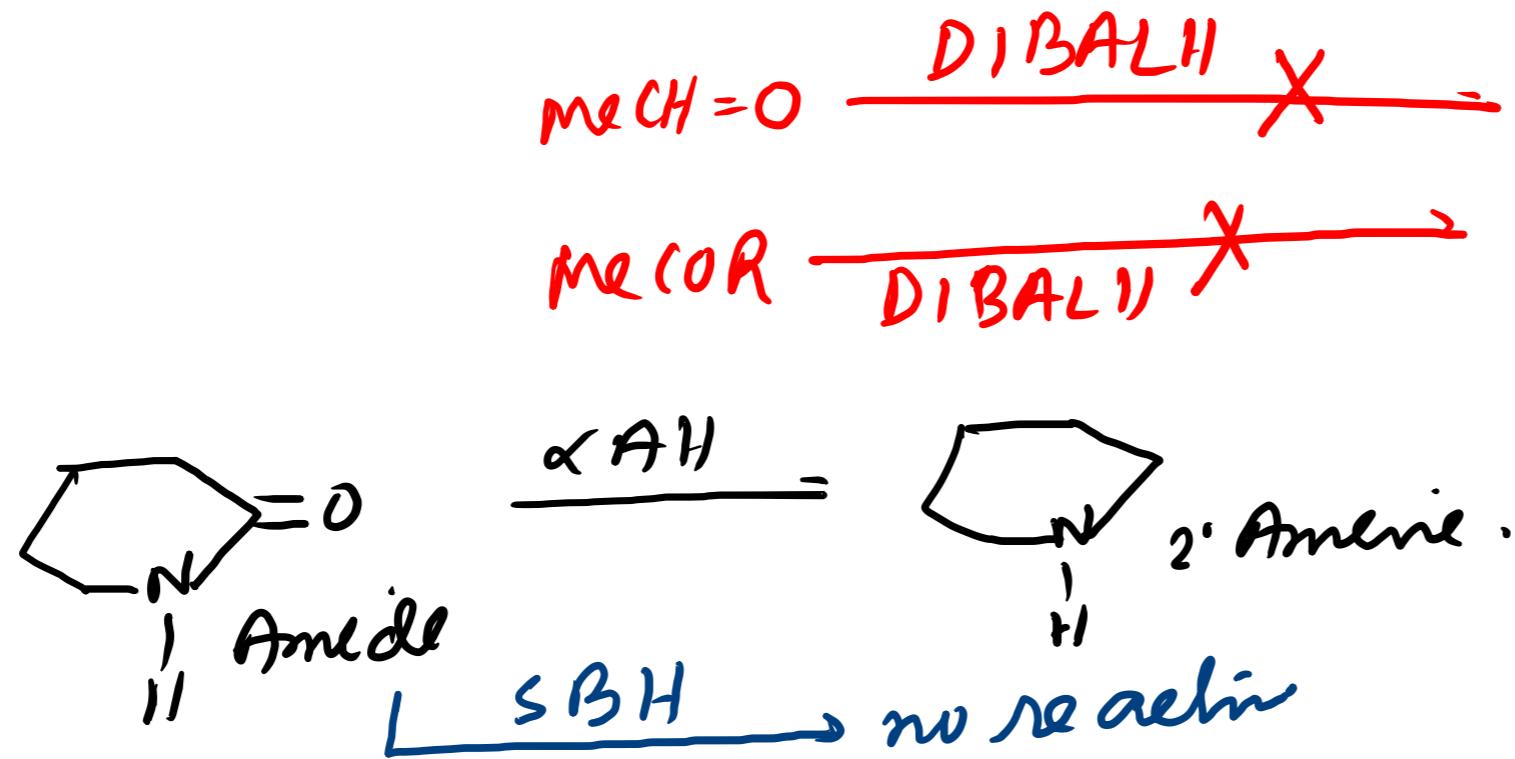
Alkyne is more reactive than alkene towards hydrogenation.

Towards electrophile, alkene is more reactive than alkyne.

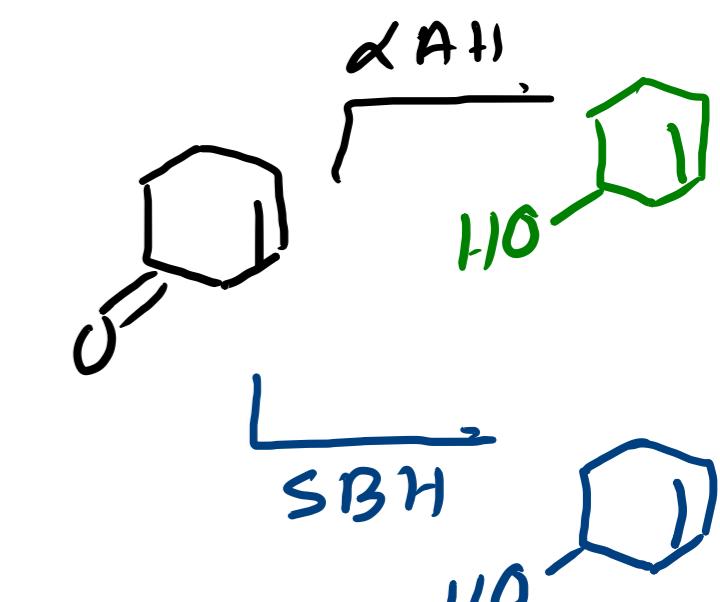
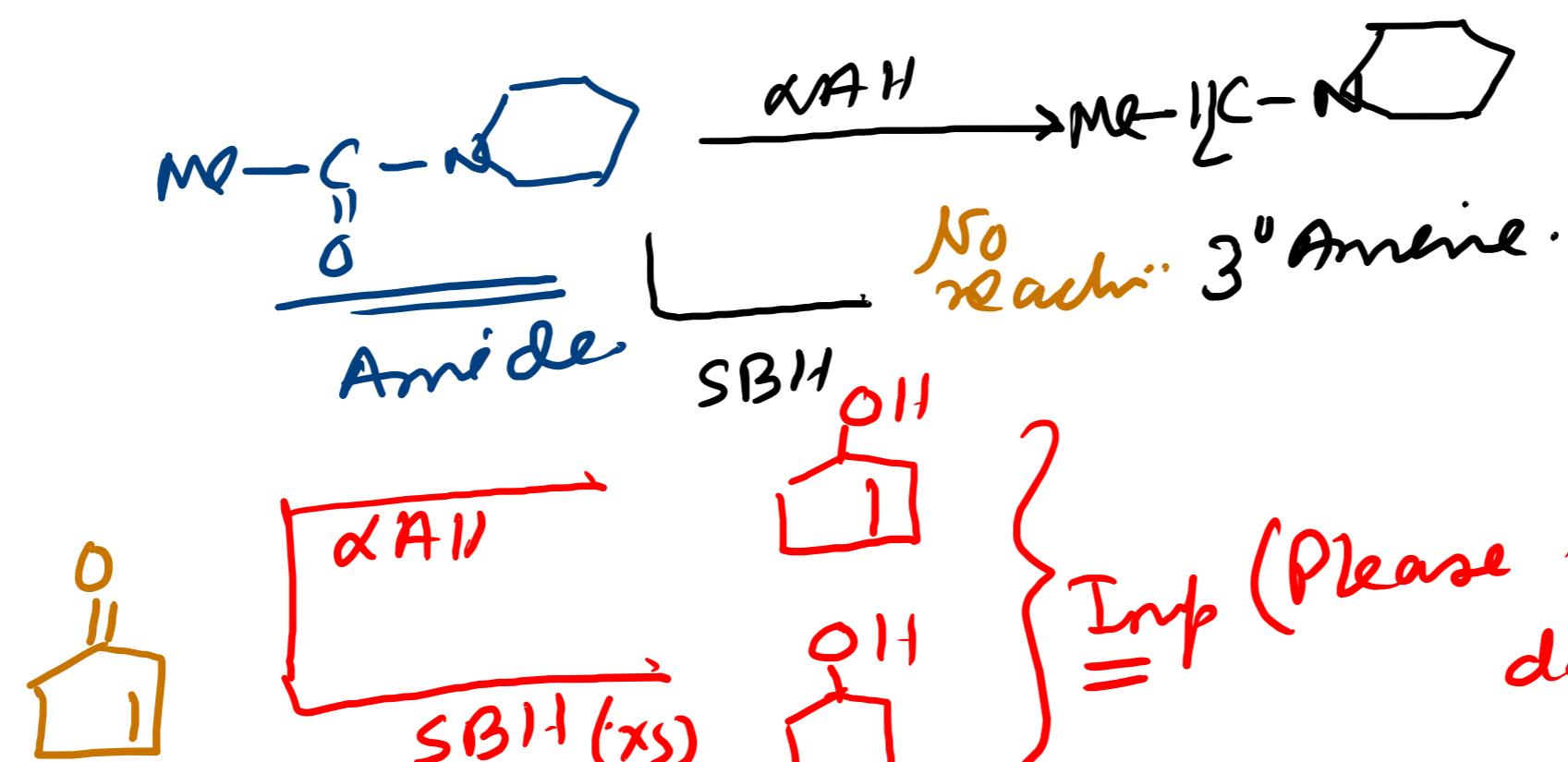
cis alkene is more reactive than trans alkene.



8)



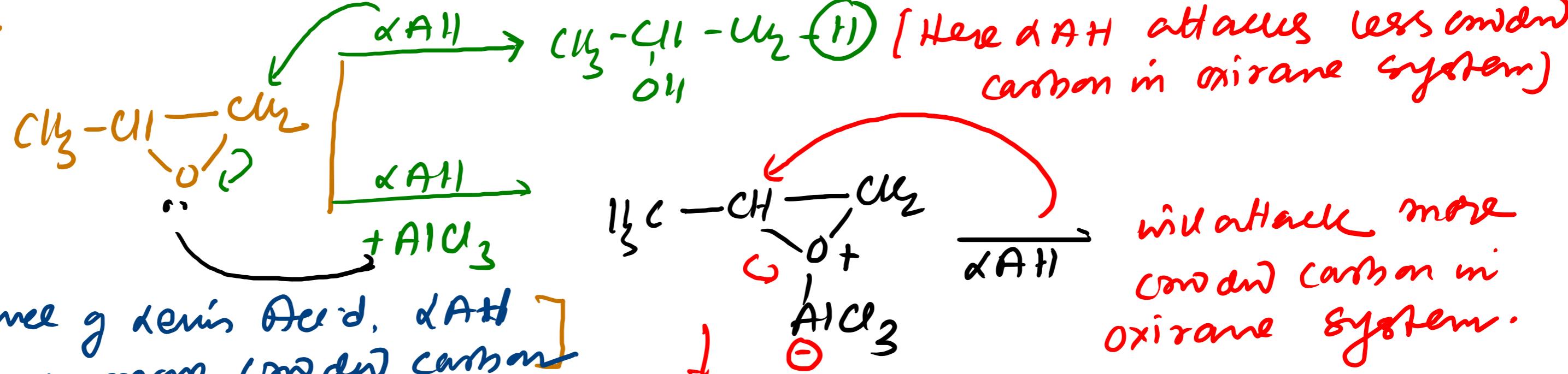
9)



If (=C is in conjugation with $-\text{C}-$ & SBH (xs) reacts wth. but αAH reacts only with $-\text{C}-$.

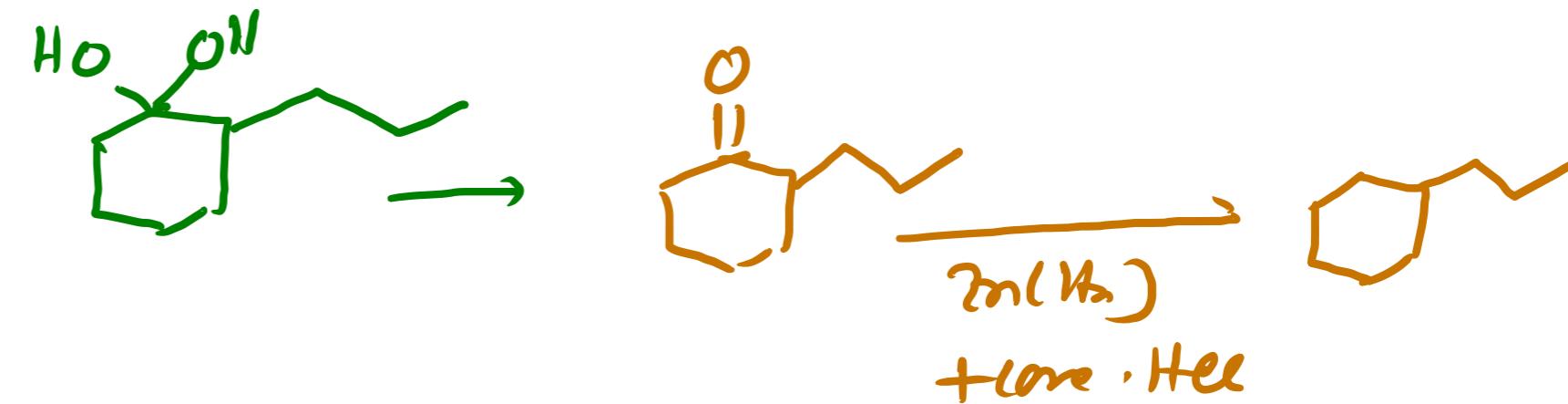
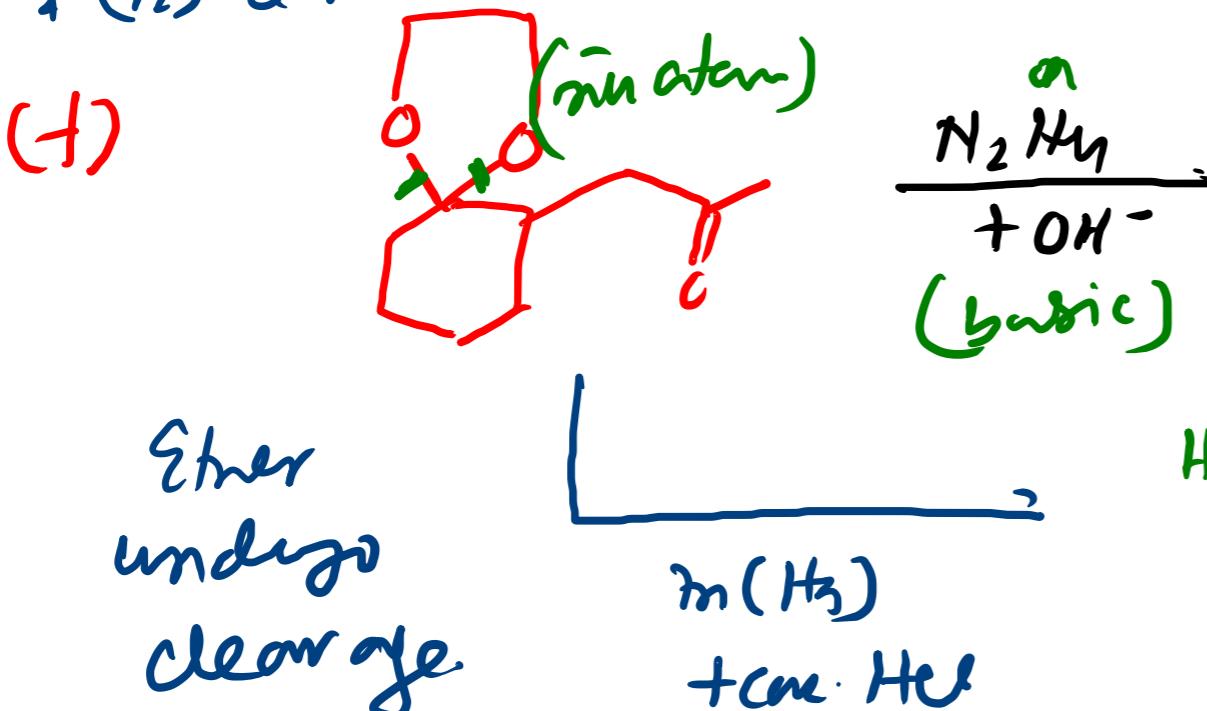
g) done.

10) m)

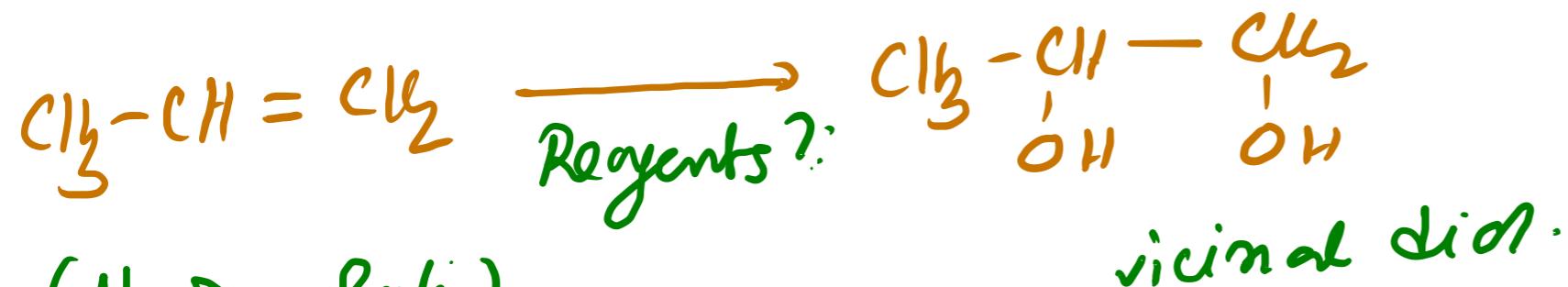


[In presence of Lewis Acid, αAH
will attack more crowded carbon
in substituted oxirane system.]

(1) & (12) done.



Oxidation of alkene : (Hydroxylation)



(Hydroxylation)

In (To prepare vicinal diol)

Reagents which can be used

a) Baeyer's reagent. (Cold dilute alkaline)

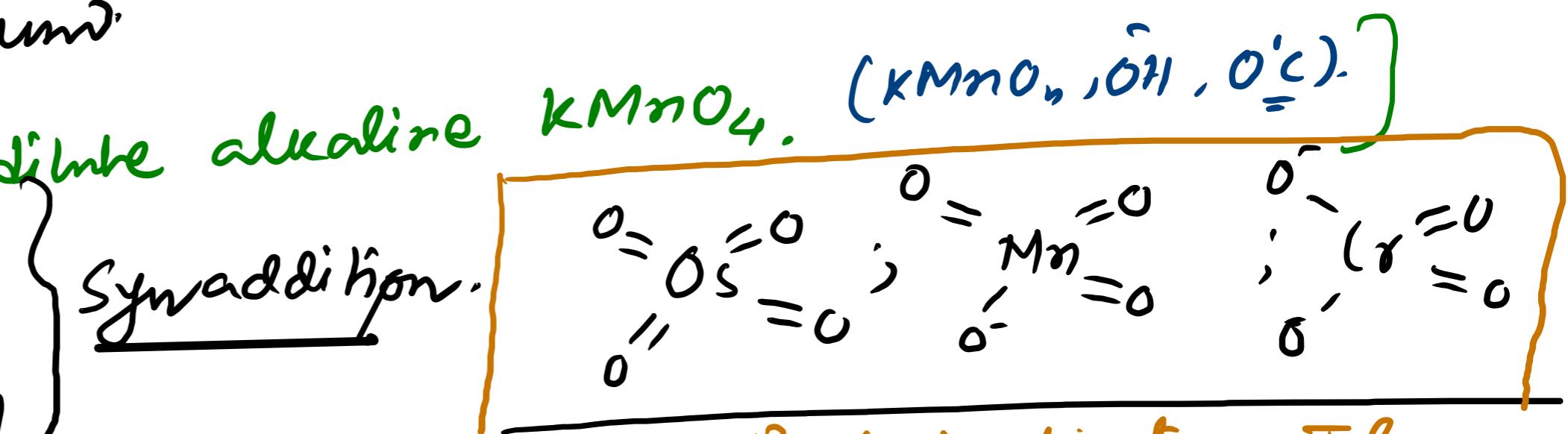
(b) $\text{OSO}_4^{2-} + \text{NaHSO}_3$

c) H_2CrO_4 (chromic acid)

d) $\text{MCPBA}/\text{H}_3\text{O}^+$; $\text{PNPBA}/\text{H}_2\text{O}$; $\text{CH}_3\text{CO}_2\text{H}$; PhCO_2H , H_2O .

e) moist Ag_2O

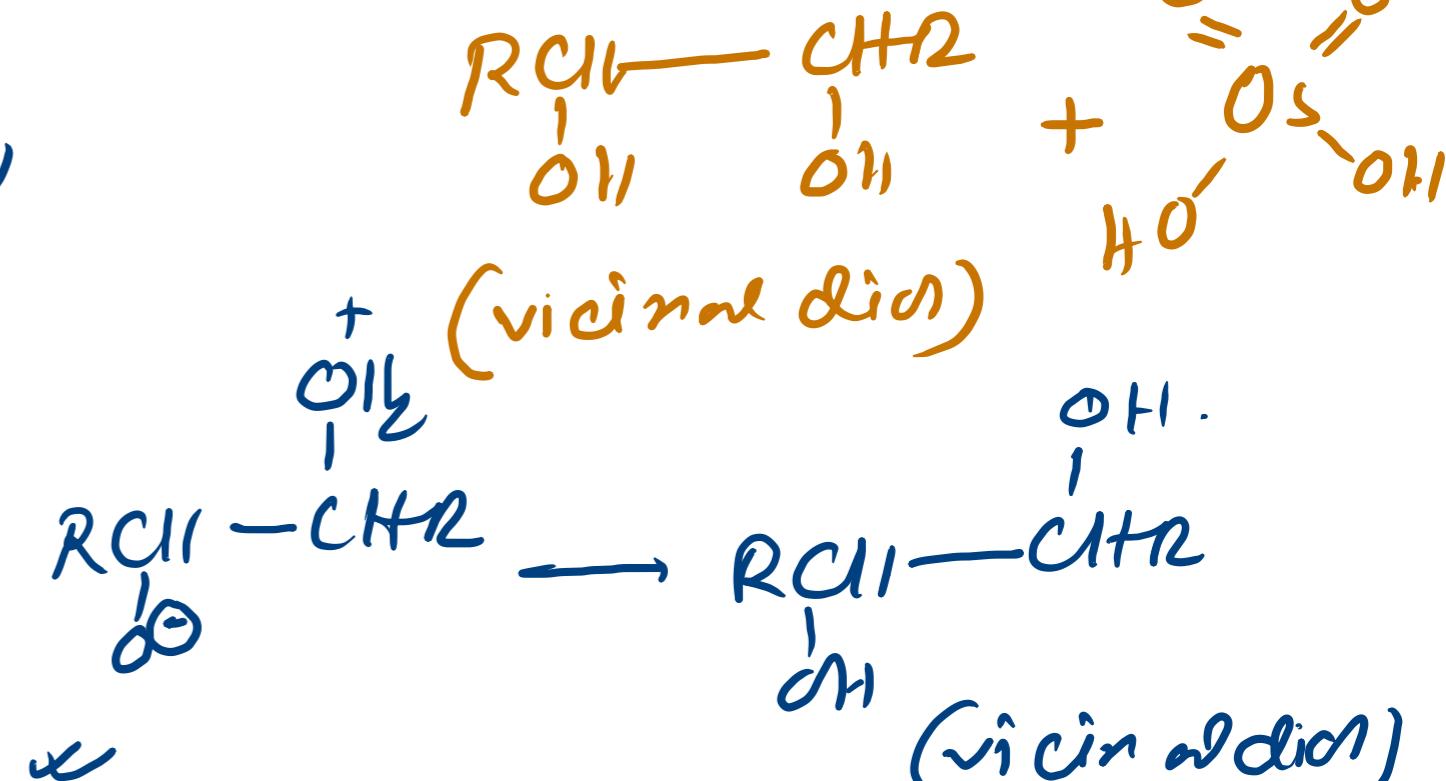
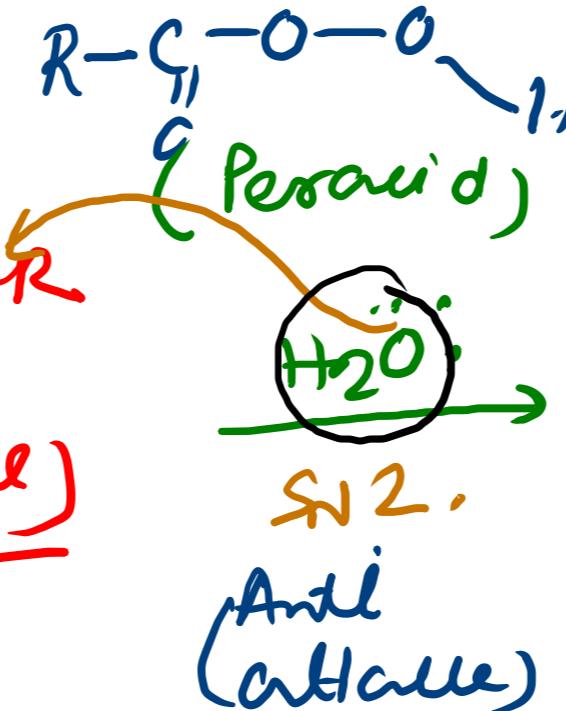
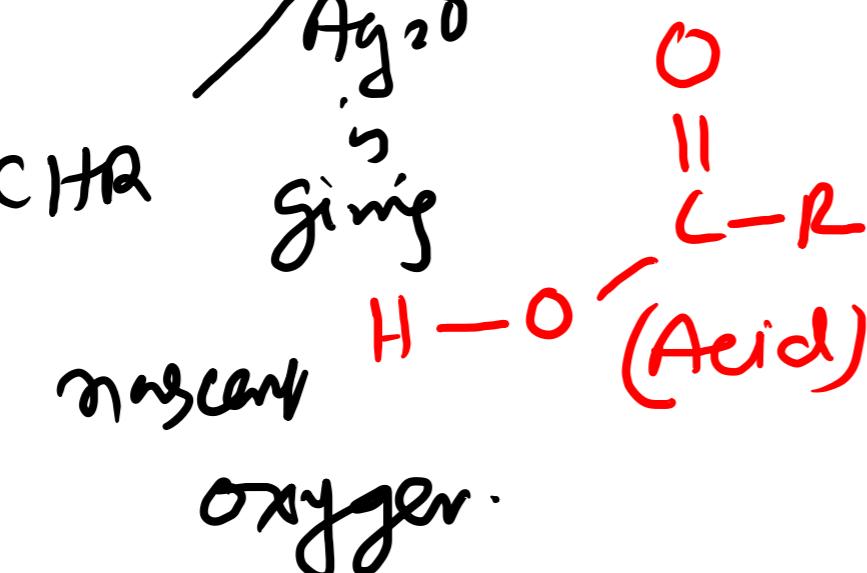
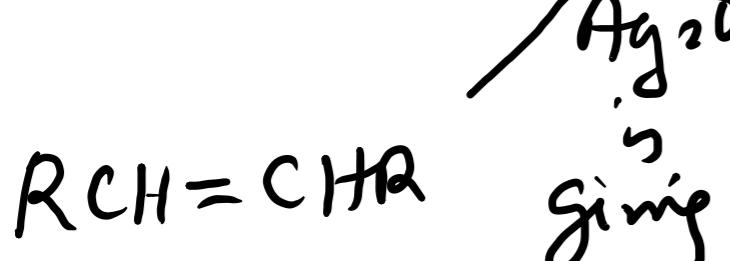
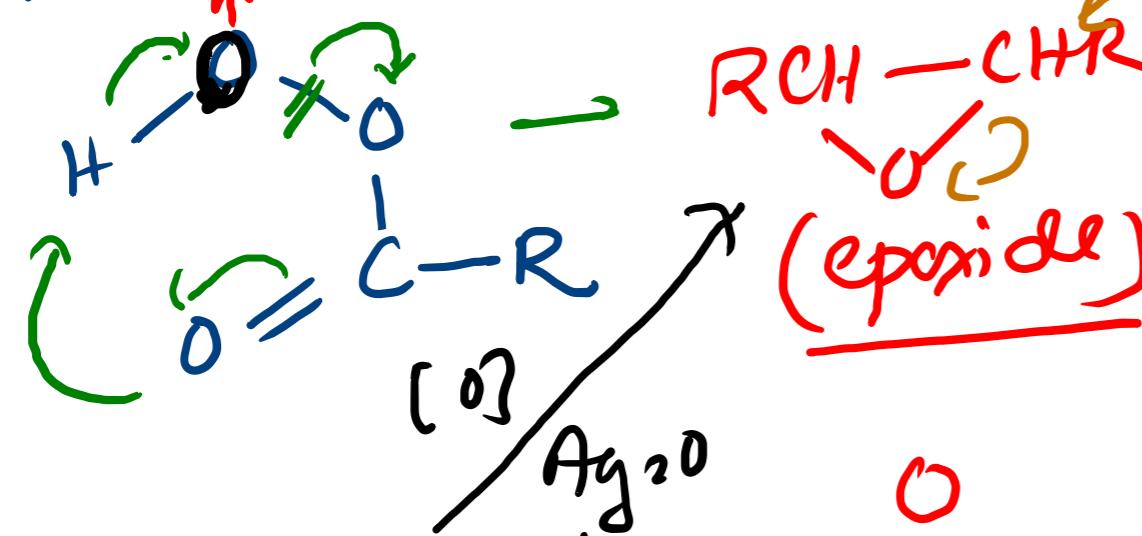
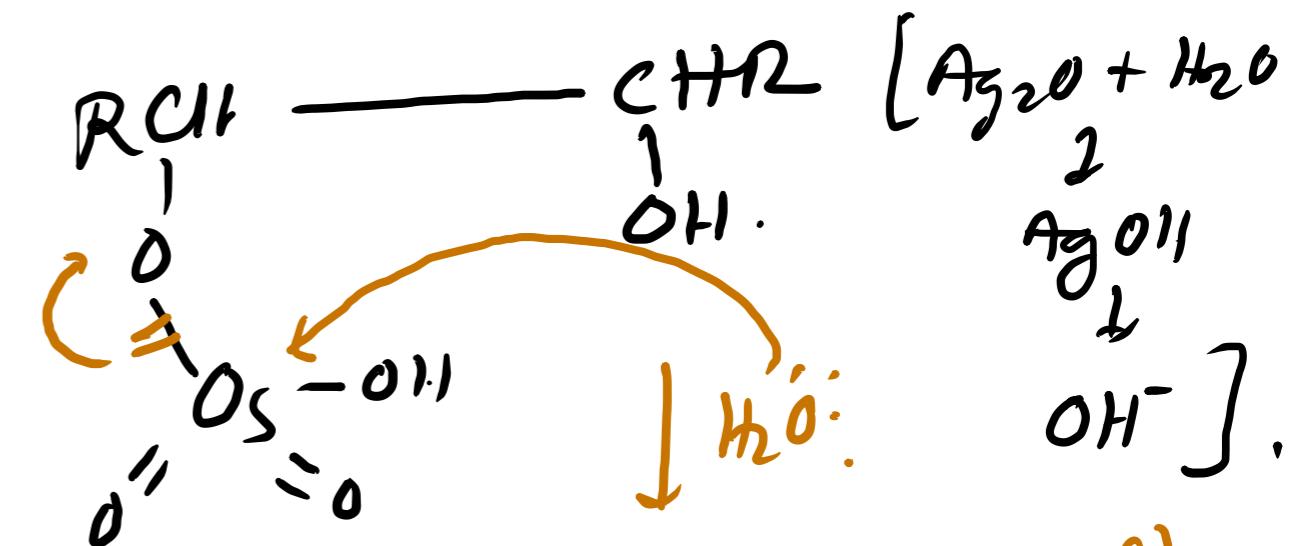
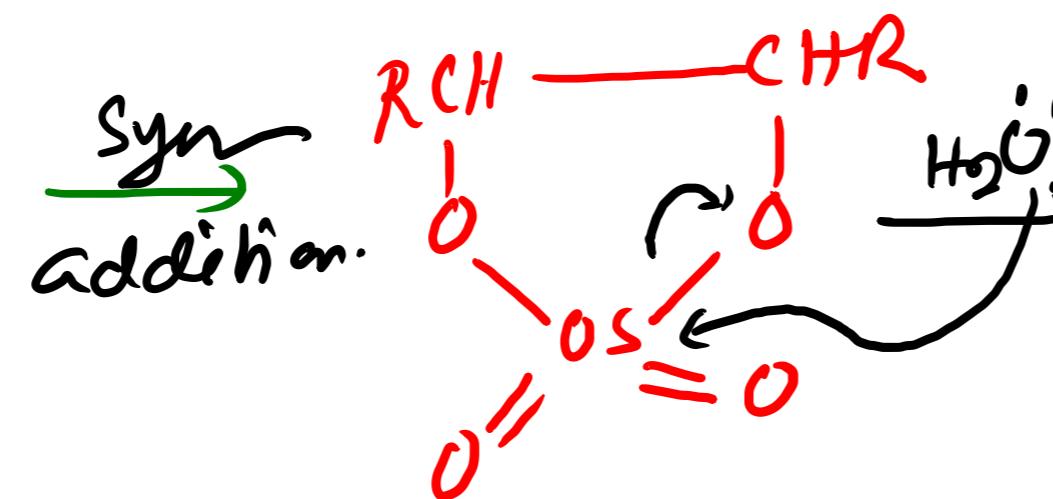
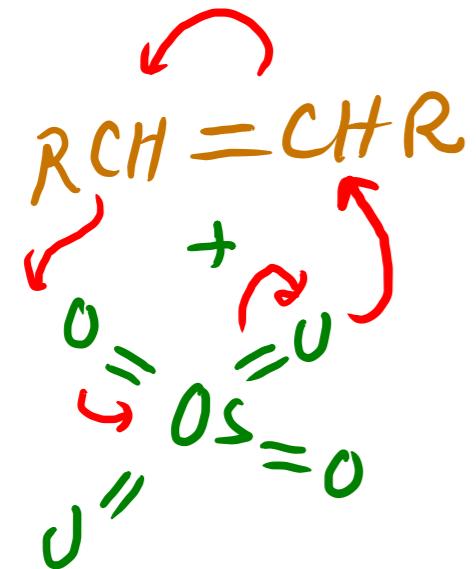
J Main (Next class).
 => Halogen derivative
 => Reducti.



d^3s hybridisation; Td

mechanism

Anti is
addition-gamo.



Anti Attacke: (Examples)

- a) Br_2 / Cu^{II} .
- b) $mCPBA, H_2O$.
- c) moist Ag_2O

Stereochemistry

cis cpd + Synaddn

\rightarrow Meso pdt

i) CSM

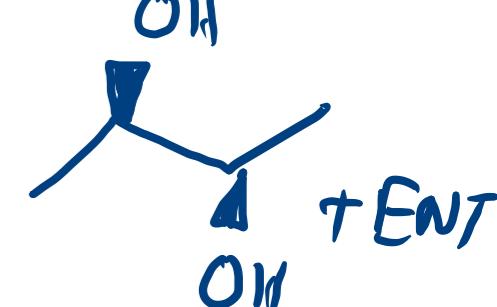
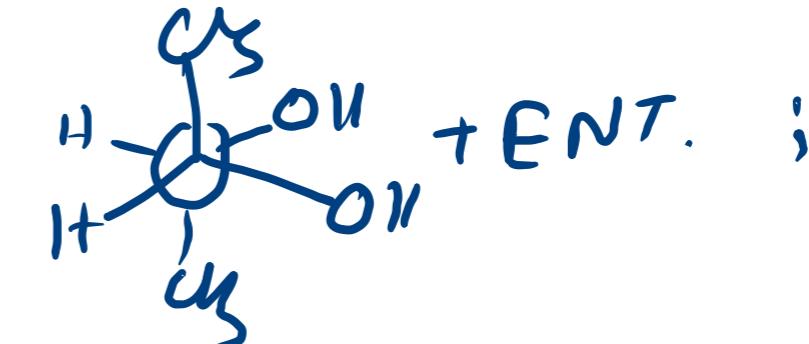
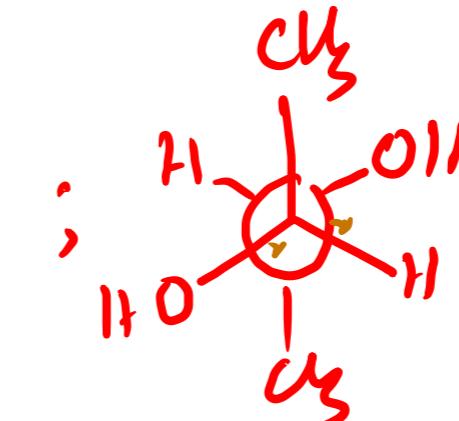
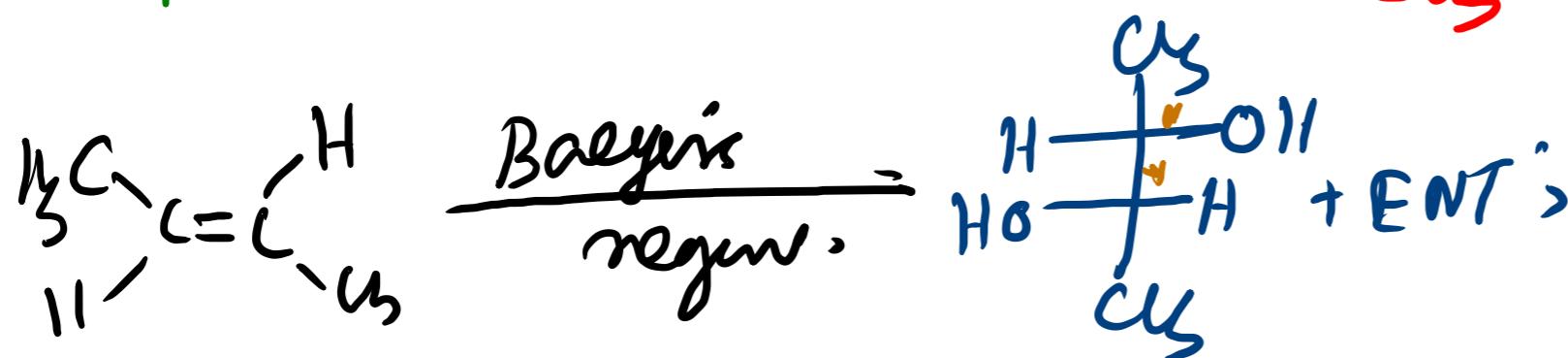
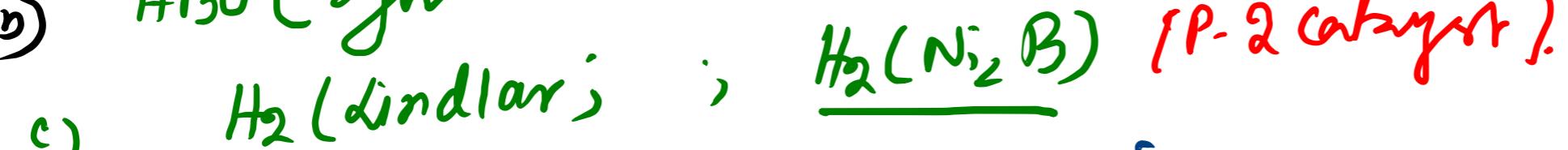
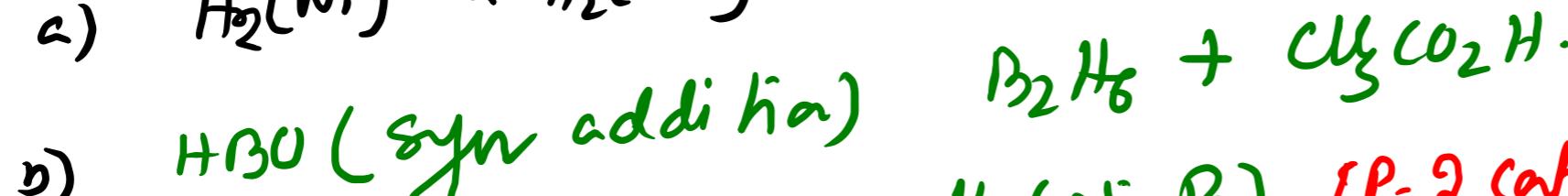
Transcpd + Syn
addition

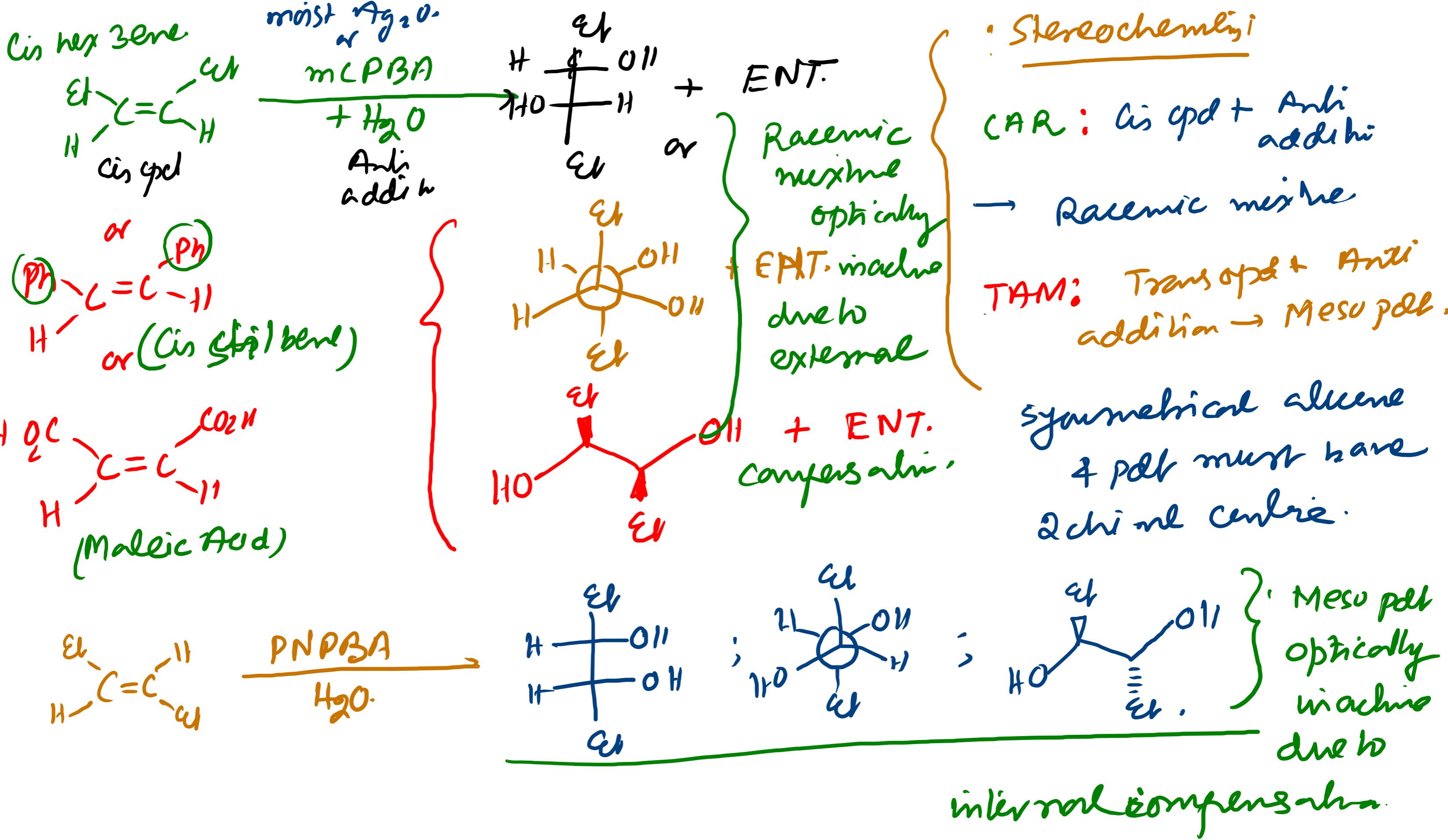
\rightarrow Racemic mixture

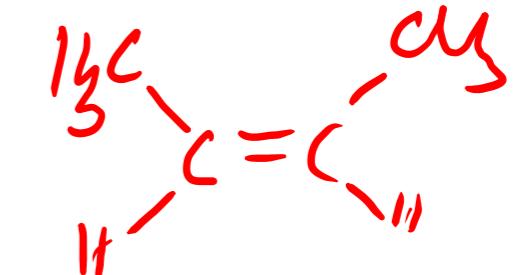
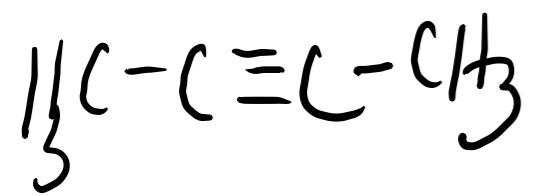
(Symmetrical alkene)

(provided product has
2 chiral centres)

Syn addition (example)





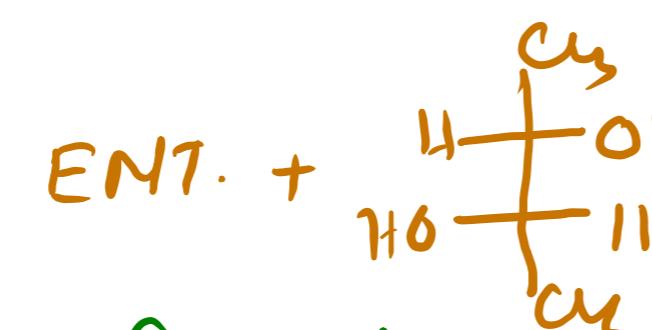
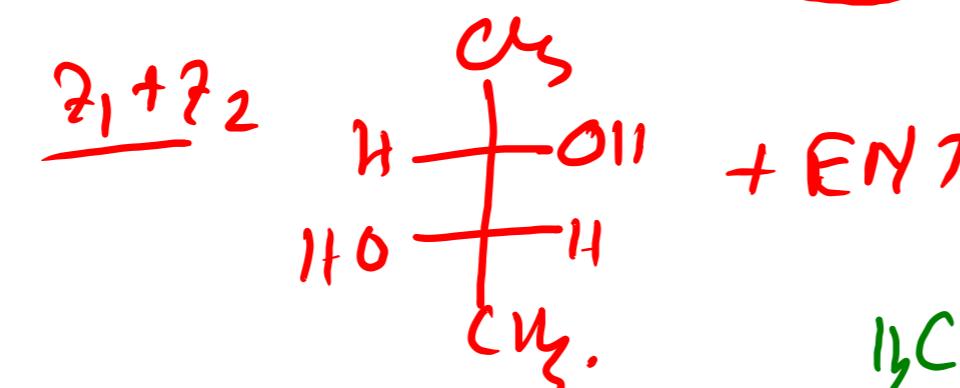
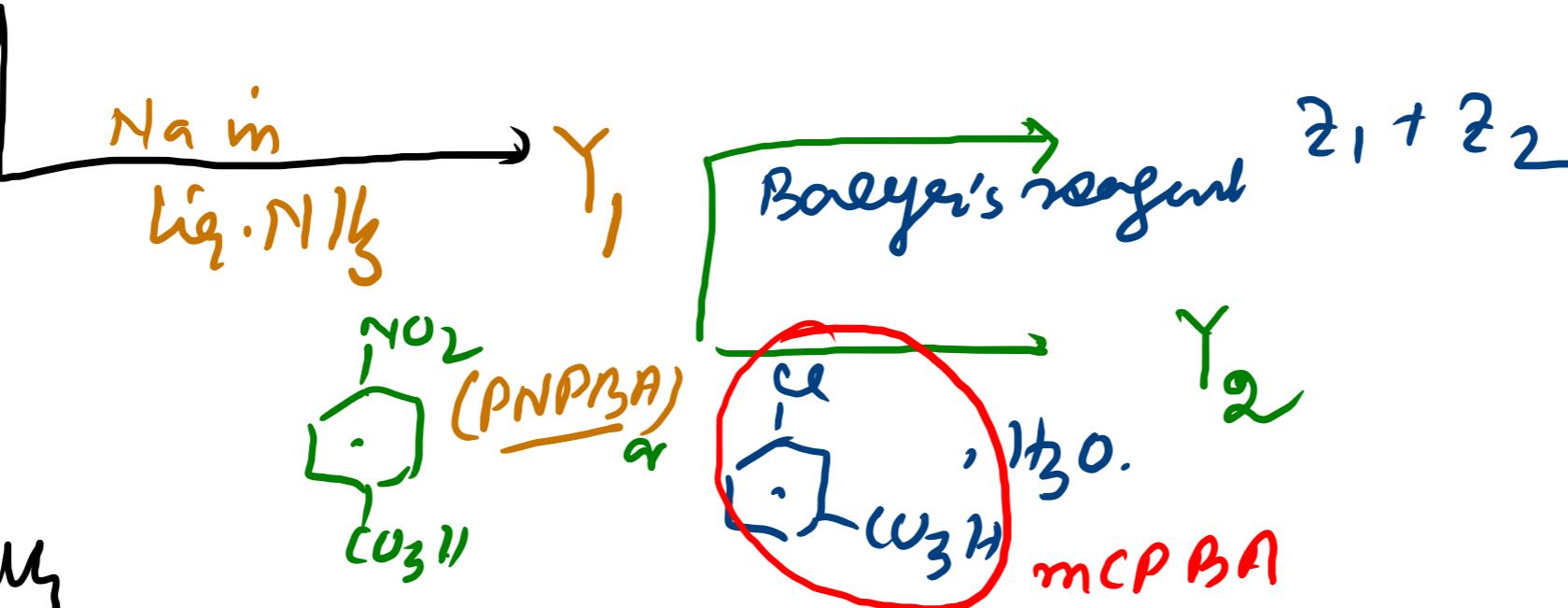
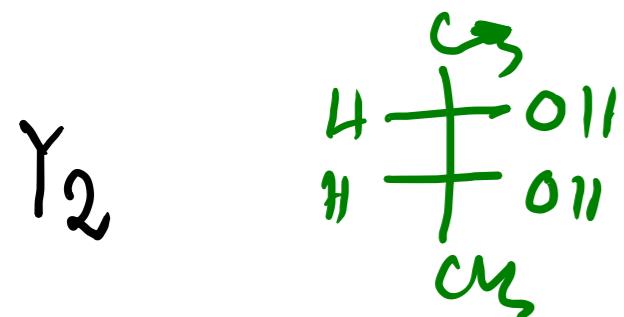
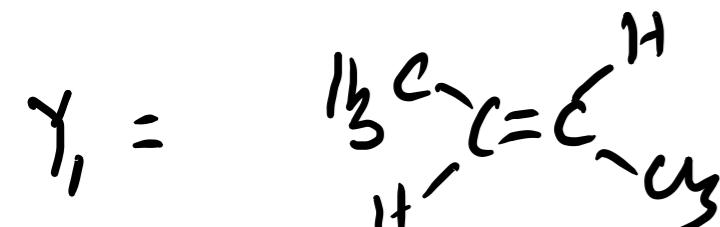
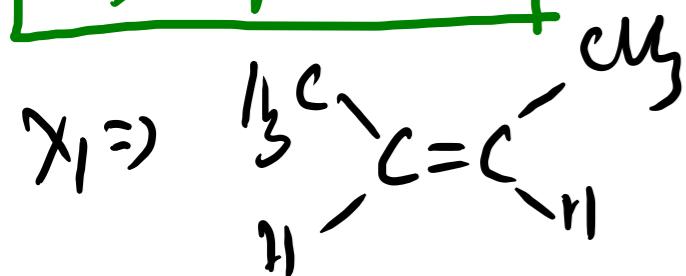


NEXT CLASS

IODOFORM

REACTION

most important



(Optically inactive) External compensation.

