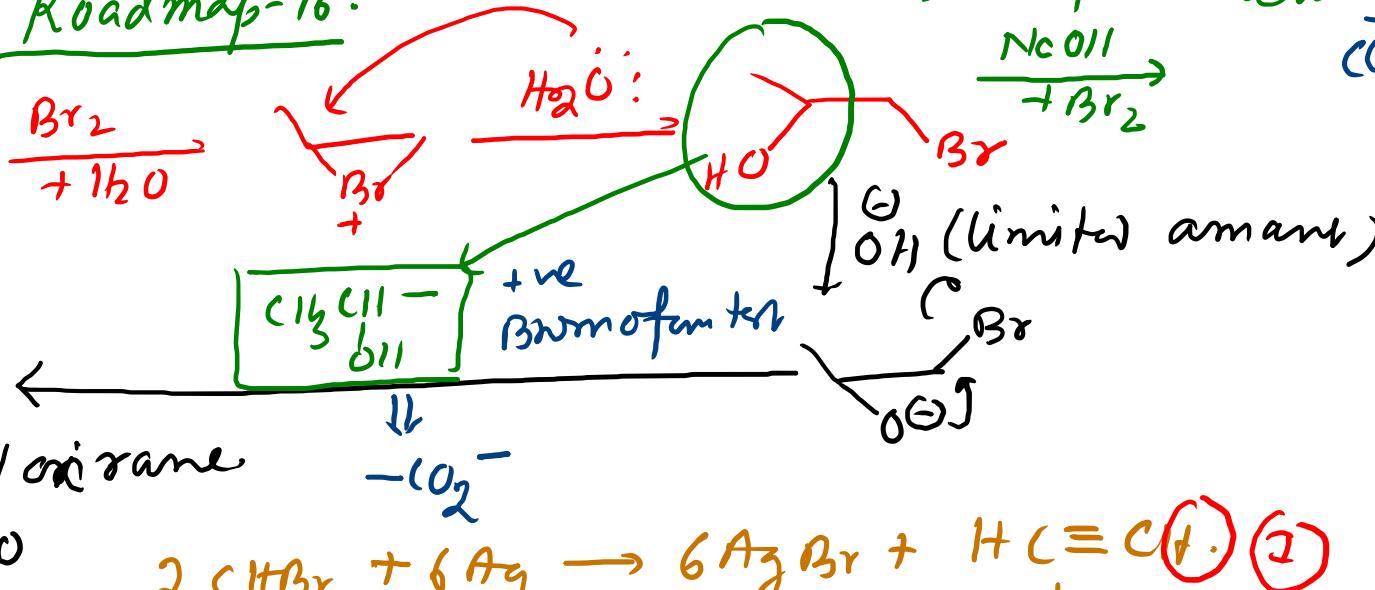
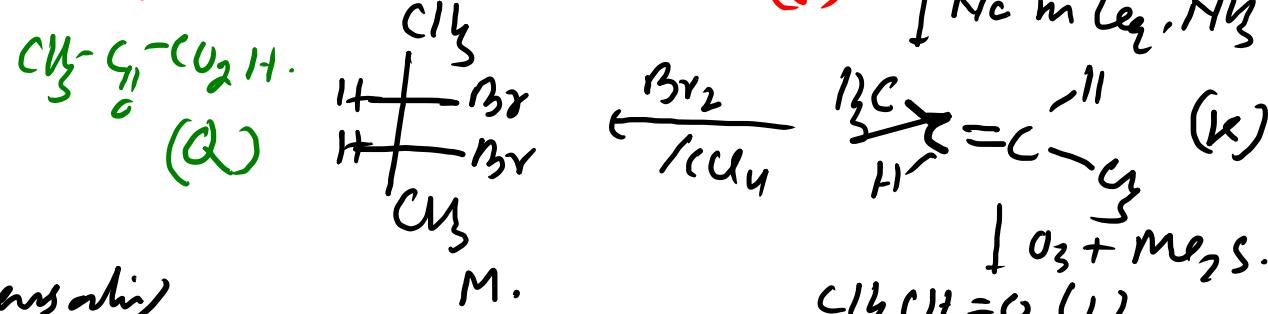
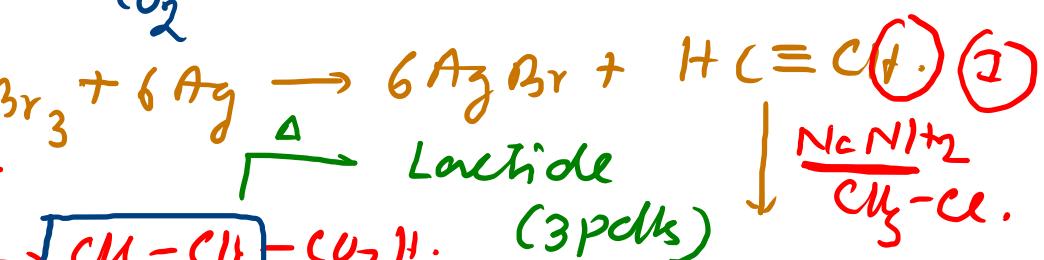
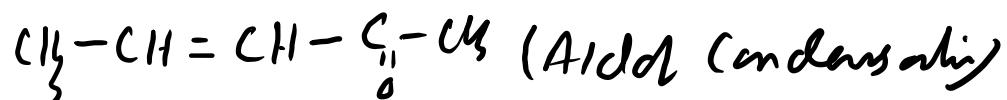
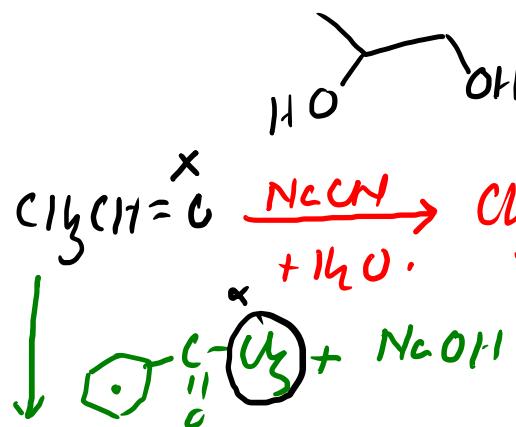
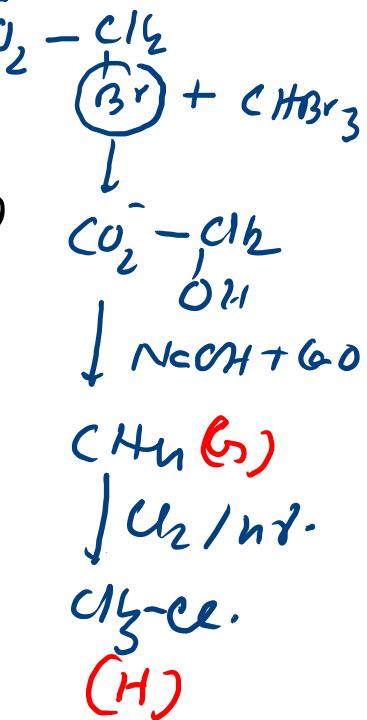


Carbanion is formed from ketone, Ag_2O & it will attack aldehyde system.

Roadmap-16:

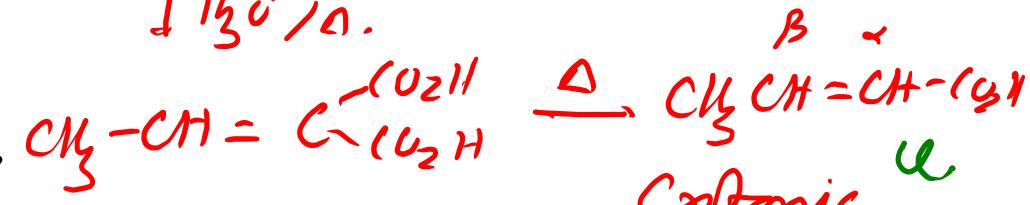


Bromofom reaction:

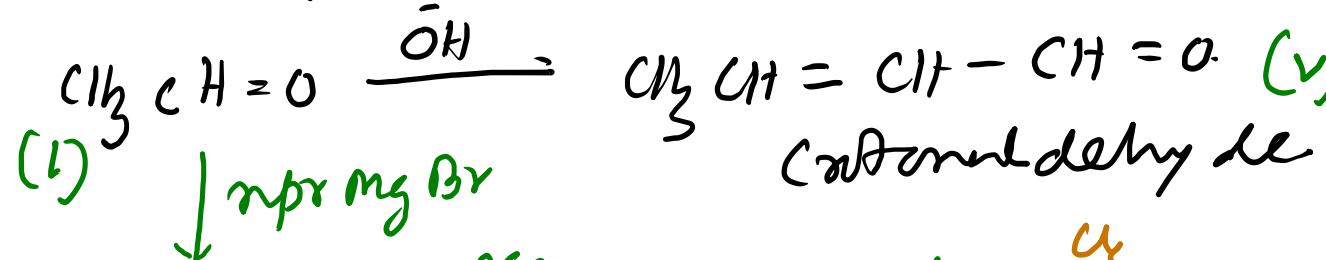




Bare
DEM
Knoevenagel condensati-



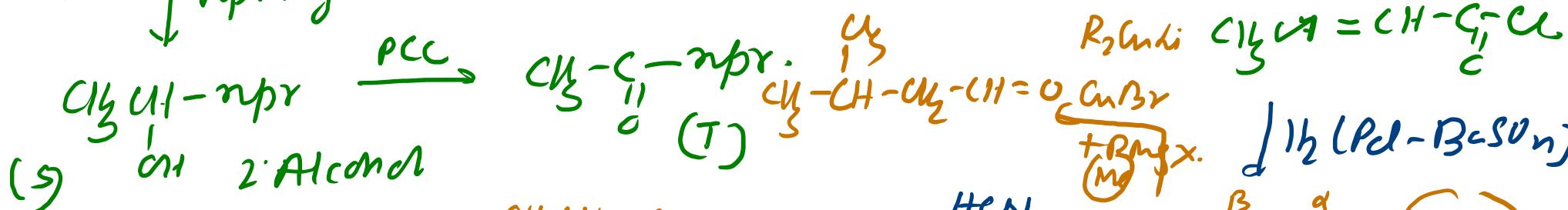
β -
Carboxic
Acid.



Conformaldehyde

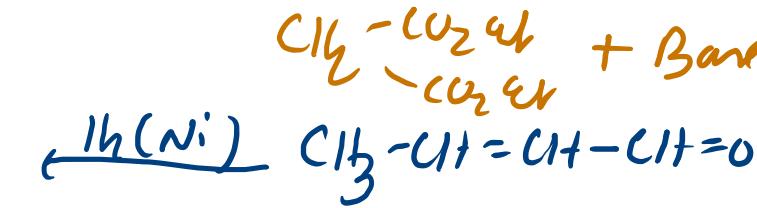
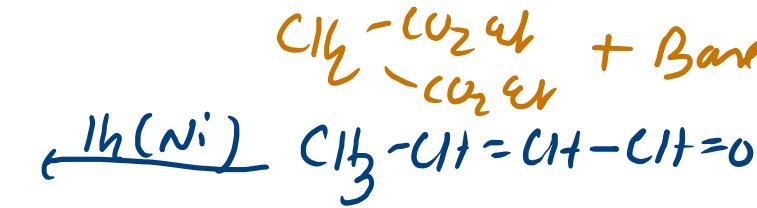
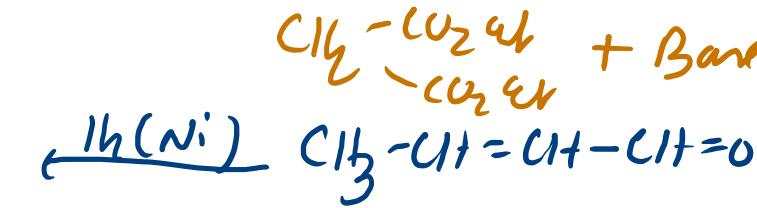
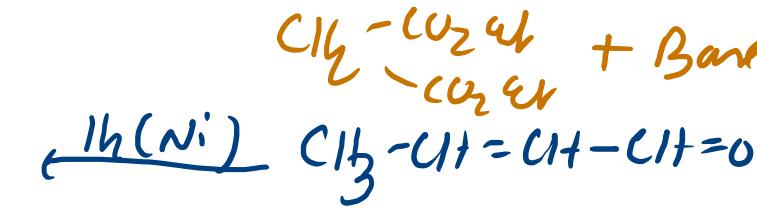
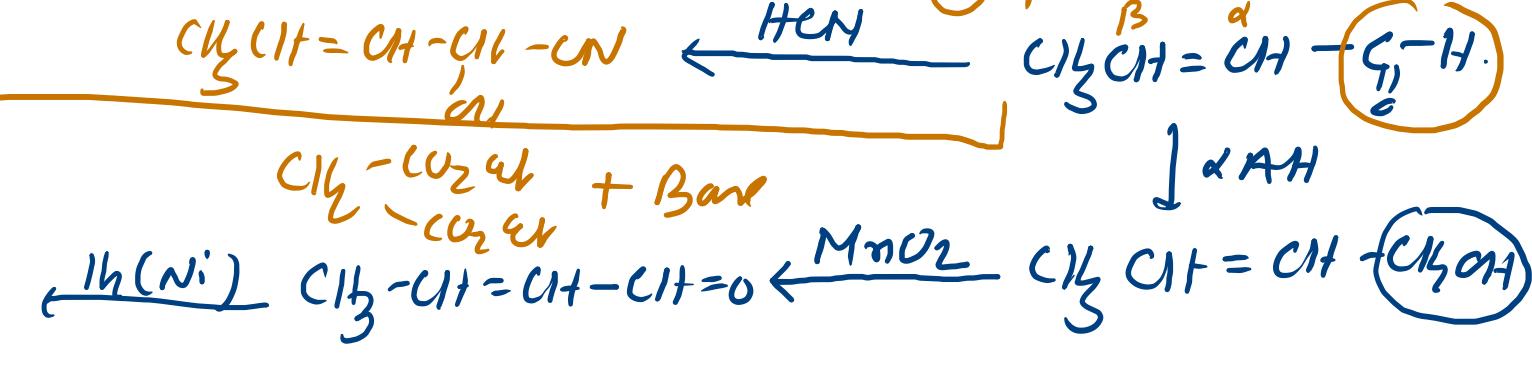
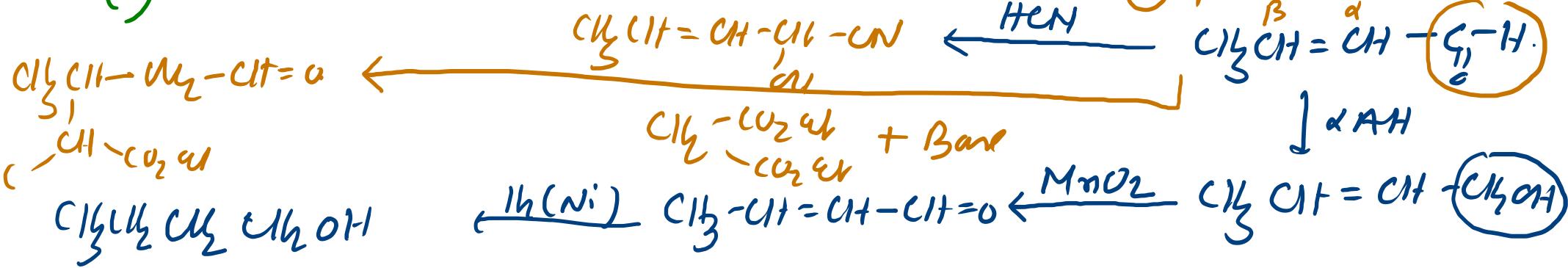
(regio)
Giltman's

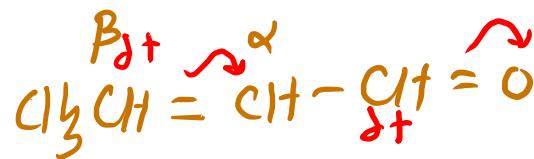
$\downarrow \text{SOCl}_2$



$\text{CH}_3\text{CH}=\text{CH}-\overset{\text{O}}{\underset{\text{||}}{\text{C}}}-\text{CH}_2$

$\downarrow \text{H}_2(\text{Pd}-\text{BaSO}_4)$

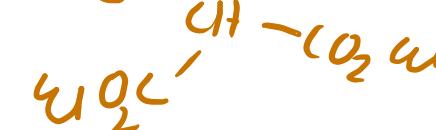
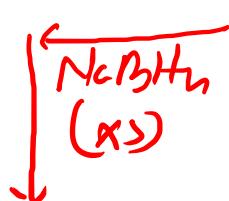
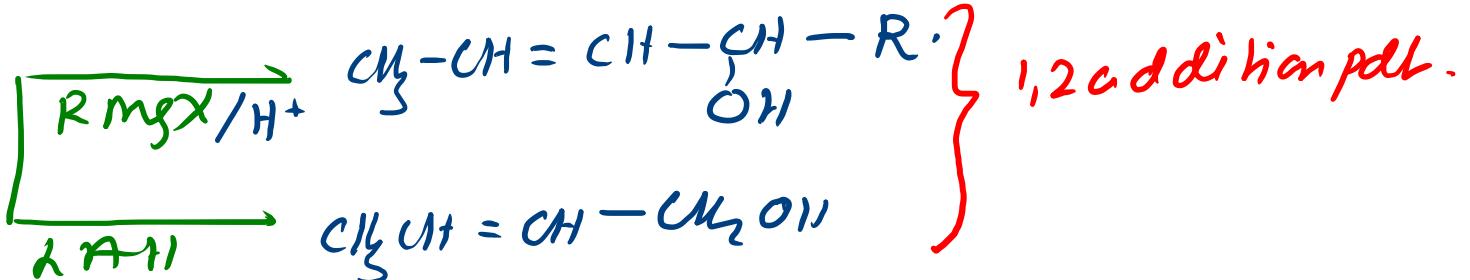
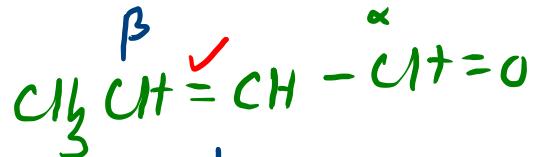




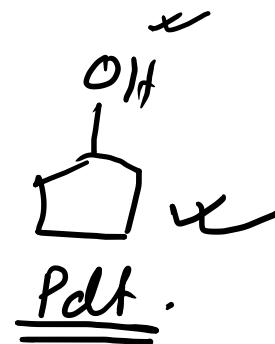
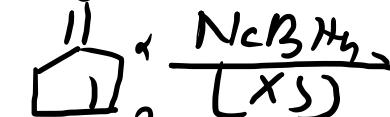
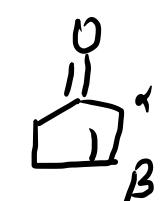
α, β unsaturated carbonyl

carbonyl carbon (electrophilic centre)

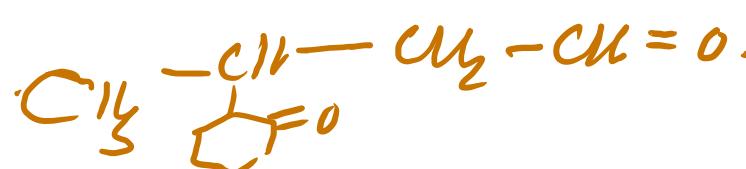
β carbon (electrophilic centre)

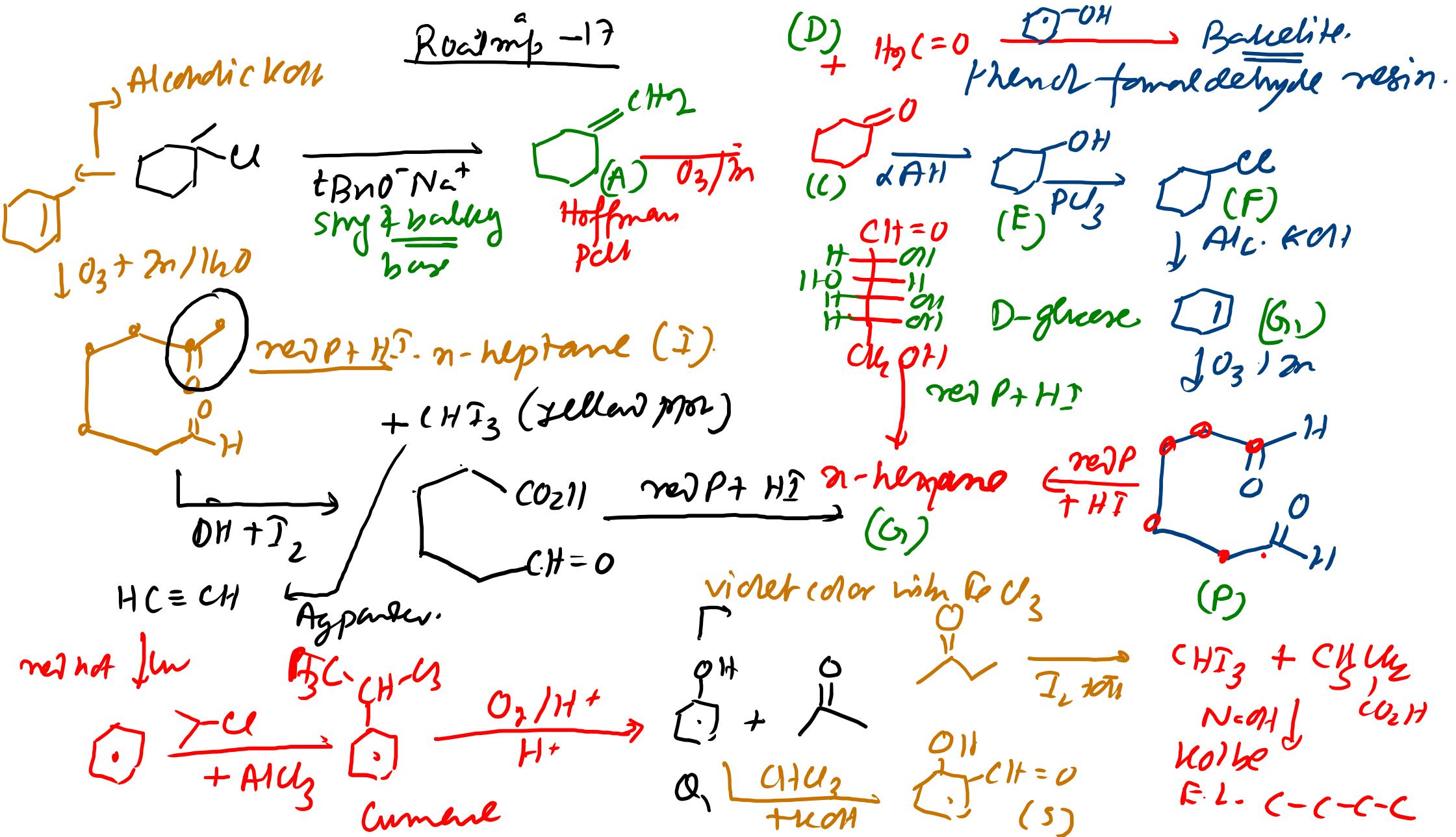


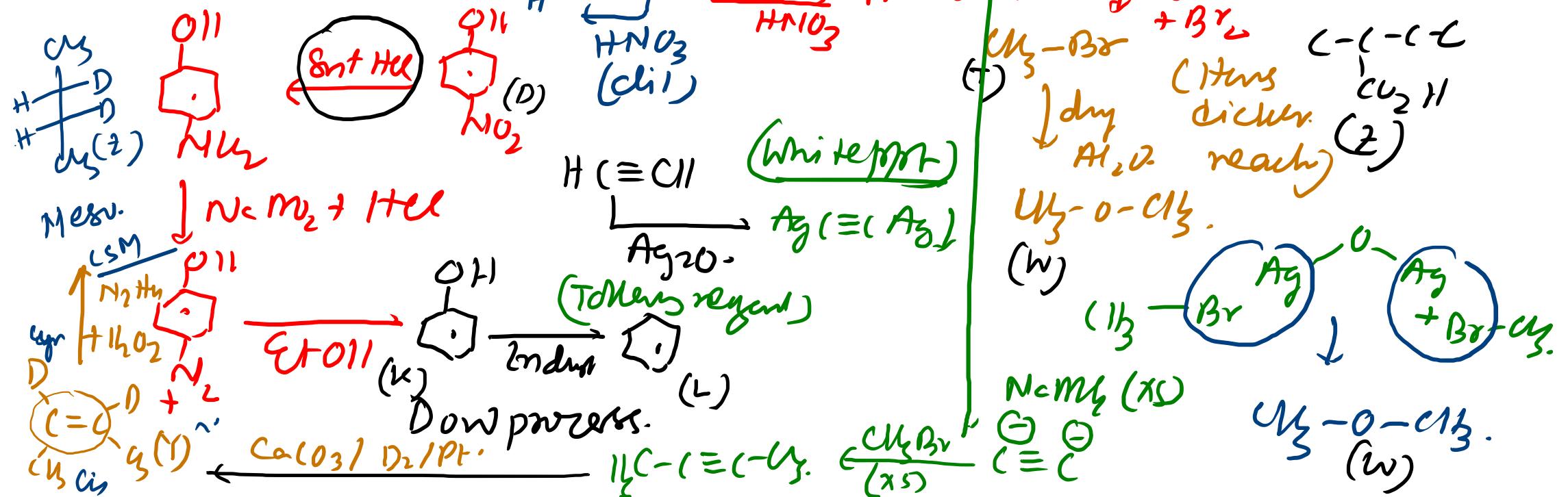
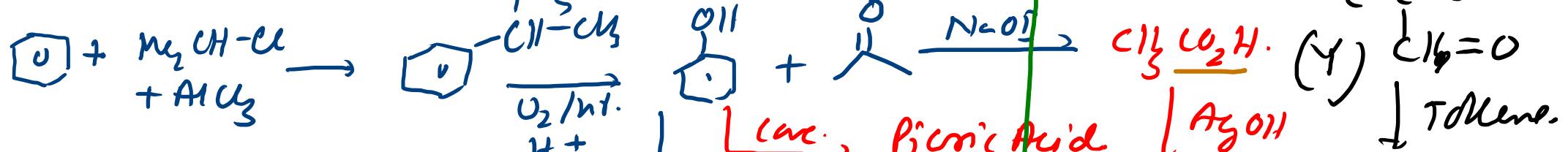
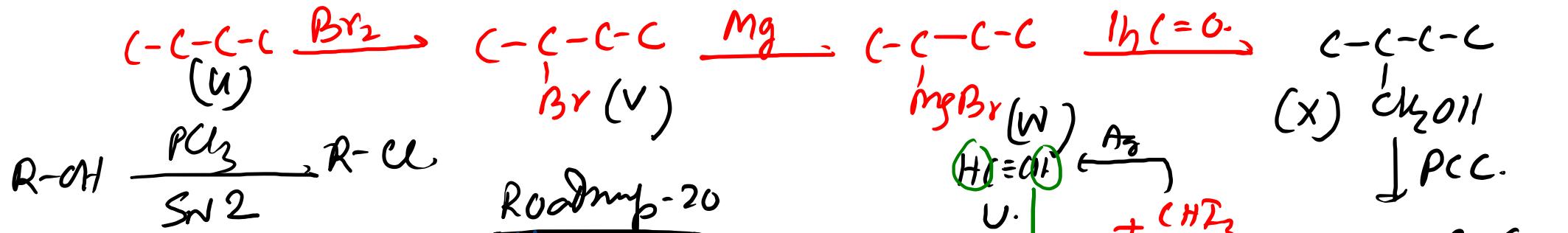
1,4 addition

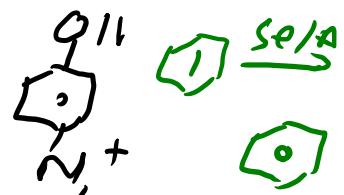
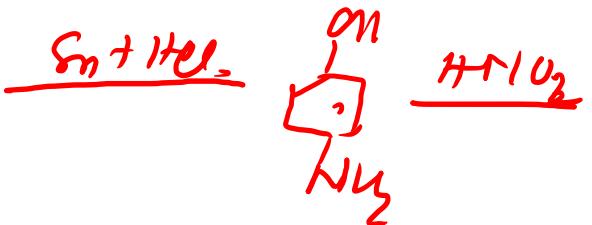
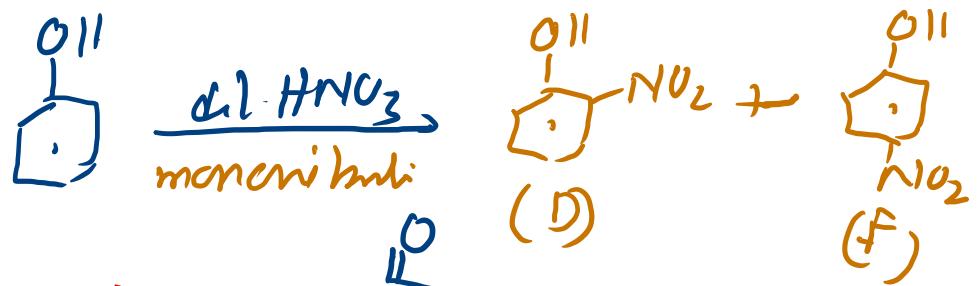


Michael
Addition.

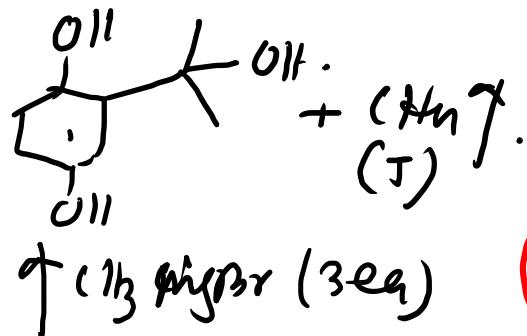




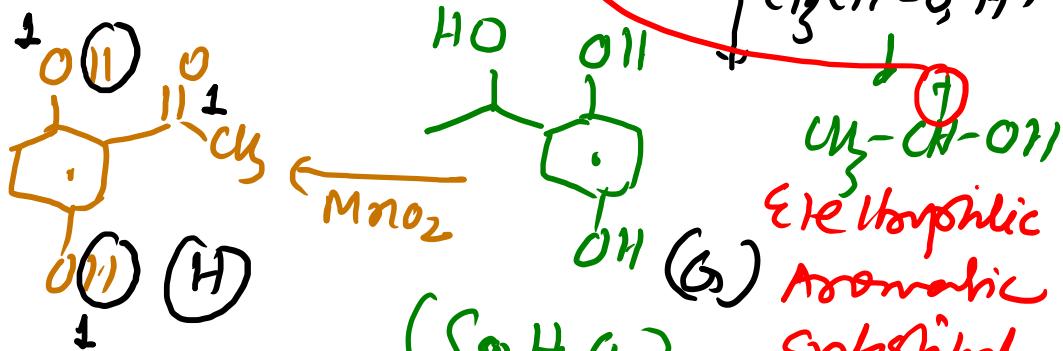
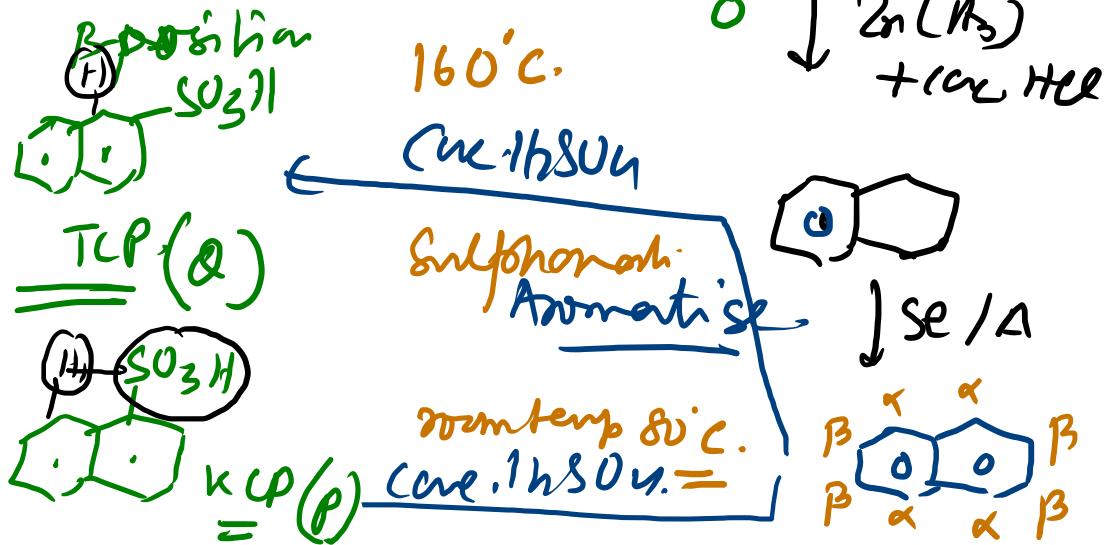
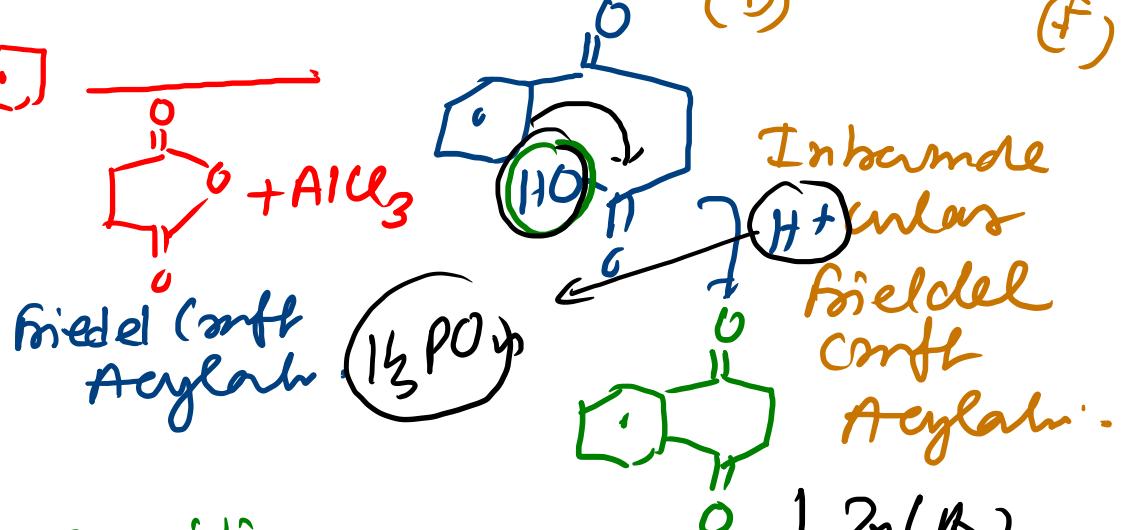
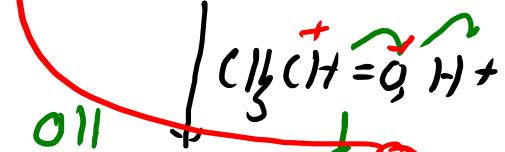




$\downarrow \text{Steam}$



$+ (\text{HgBr}_3 \text{ eq})$



$(\text{C}_8\text{H}_6\text{O}_3)$ $\equiv 3 \text{ mole of } (\text{CH}_3)_2\text{N}^+ =$

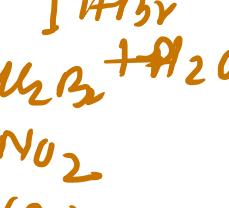
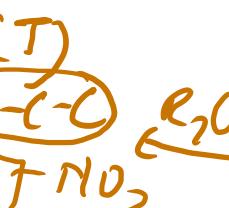
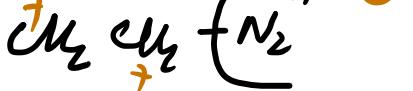
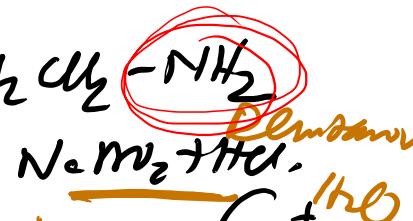
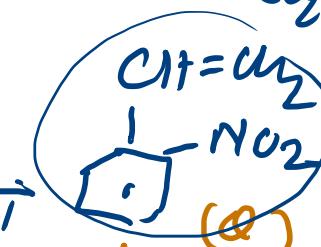
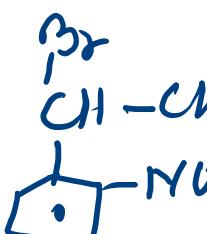
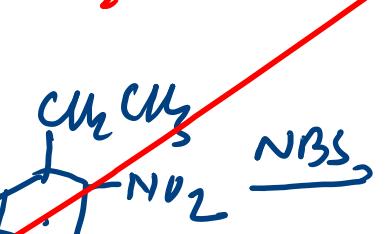
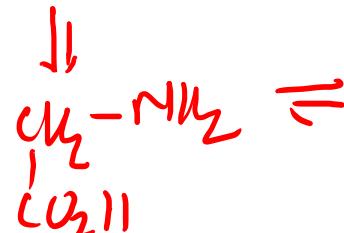
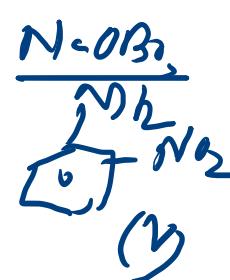
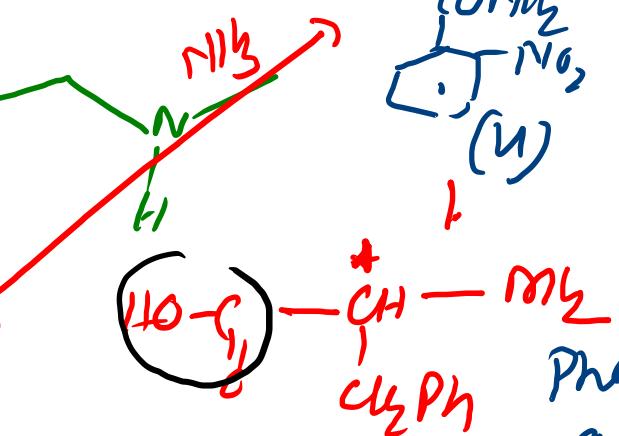
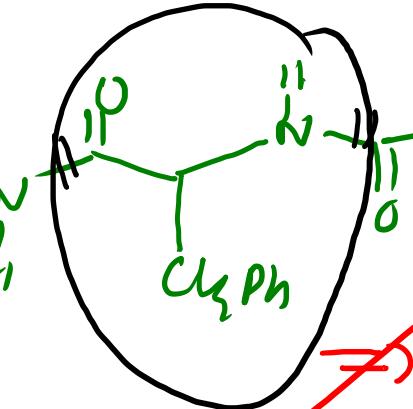
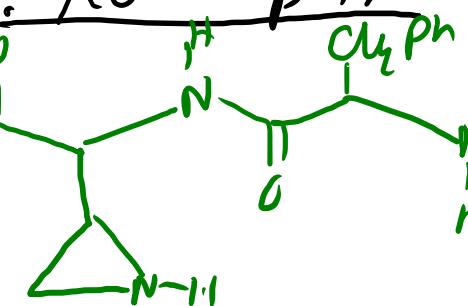
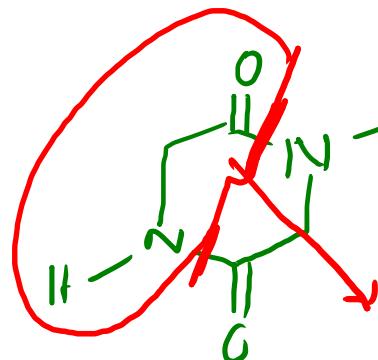


$\text{K}^+ \text{ [C}_6\text{H}_4\text{SO}_3^- \text{]}_3$



$\text{C}_6\text{H}_4\text{SO}_3^-$ $\text{Electrophilic Aromatic Substitution.}$

Roal map - 19:



Reactions:

- => Acidic strength.
- => Basic strength.
- => R. S Similitiy
- Bond lengths / Bond strengths.
- => Acids; N.A.; A.A.
- => Wurtz
- => Kolbe
- => Alkane oxidatin (NCERT)
- => Alkyne (Kuchersov)
- => Mar. Anti-M. polt
of alkene
- GOC => heating effect (β -keto acid, dry distillation)
- => NBS
= alkane halogenation } Integer based.
- => GR (details)
- => SN1, SN2, E1, E2 94600 - 11295
[neas; Finkelstein; Snw] Ramashish Paul
- SOC₂, PCl₃, PCl₅ - [sayett] Hoffman.
- => Purification process (distillation; chromatography).
- => b.p / Molar. => Aldol, Cannizzaro, Staudinger, haloform
Penicillin, Protecting carbonyls, HCN addition
- => POL. (Tollen, Fehling, KMnO₄; Bayers)
- => Paul Knoevenagel reaction All reac.
- (ABD: OMDM)
Peroxide effect, Br₂ (the addition).

All reducing agents	$\Rightarrow WKR$	$\Rightarrow NaBH_4$	\Rightarrow Rosenmund.	$\Rightarrow N_2H_4 + H_2O_2$
	$\Rightarrow red P + H_2$	$\Rightarrow H_2(Ni)$	\Rightarrow Stephen	$\Rightarrow M.R.V$
	\Rightarrow Clemensson	$\Rightarrow AlI_3$	\Rightarrow Birch	reducr.
	$\Rightarrow DIBAL-H$	$\Rightarrow B_2H_6 \cdot$	\Rightarrow Lindlar.	\Rightarrow green

(Bouleau & Blanck) $\Rightarrow N_2 + 4tOH$

All oxidizing reagents	$\Rightarrow KMnO_4$	$\Rightarrow O_3/m.$	$\Rightarrow MnO_2$	$\Rightarrow HIO_4$
	$\Rightarrow K_2Cr_2O_7$	$\Rightarrow mCPBA$	\Rightarrow Seelz	$\Rightarrow HNO_3$ (Aldose \rightarrow Aldoxic acid)
	$\Rightarrow PCC$ / (Collins) / Sonett.		\Rightarrow Tollen	
	$\Rightarrow CrO_3$	\Rightarrow Oppenauer oxidants.	\Rightarrow Fehlig.	$\Rightarrow I_2 + OH^-$ \Rightarrow Common oxidant.

Aromatic Chemistry

Nitration; Reducing nitrobenzene (diff. medium) . F.C. Auylaw + Aylaw.

Bromination $\xrightarrow{\text{Br}_2 + H_2O}$ Etard.

Reimer Tiemann $\xrightarrow{\text{Br}_2 / (S_2)}$ Sulfonation; Desulfonation.

Kolbe Reactions $\xrightarrow{\text{imp.}} \text{Moss}$; Dar, SWAG; Aylaw; Gatterman, ^{Koch} Diazonium ion form.

Converting $NH_2, -OH, + diff.$

Biomolecules

Carbohydrate (details Openchain + cyclic 8tr).

+

Amino Acid (Details) Test of Carbohydrate + Amino Acid

Polymer. | from NCERT, every single point is important.

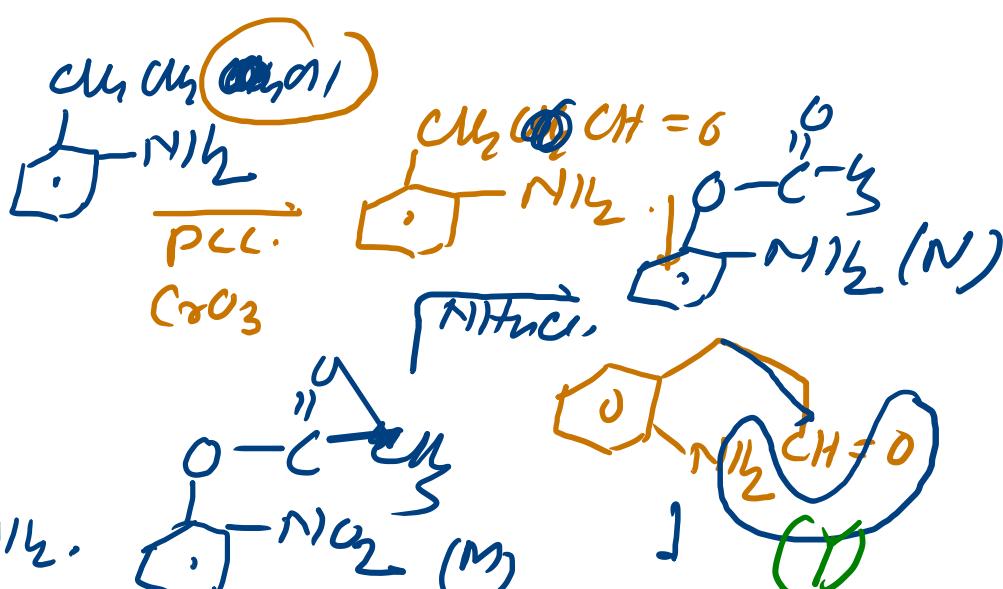
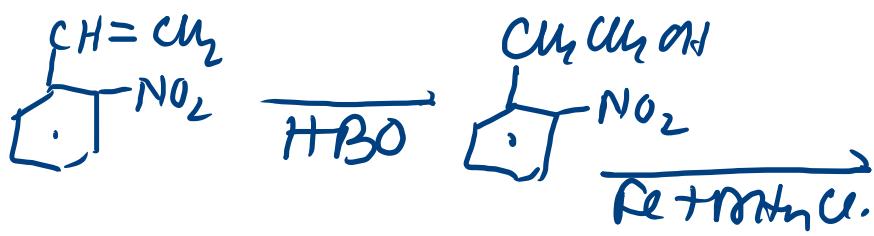
Carboxylic Acid & Amine	H ₂ ; NaH(C ₆ H ₅) ₂ ; Carbonyl Amine Test; Hinsberg test Preparation of amine (Hoffmann's bromamide). Gabriel Phthalimide reaction NaOH + CuO's $\xrightarrow{\text{H}_2\text{N}-\text{R}}$ (different types of amine)
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Chemistry in everyday life

Every details info about all drugs. vitamins; sweetener.
Soap & detergent; Enzymes DNA, RNA, Nucleic Acid
sugar; basic unit.

11th Practical

Carius, Kjeldahl; Dumas; Lassaigne; Leibig; Victor Mayer.
from NCERT why. test / (ATN / FeCl₃) Diazo coupling. test. for Phen.



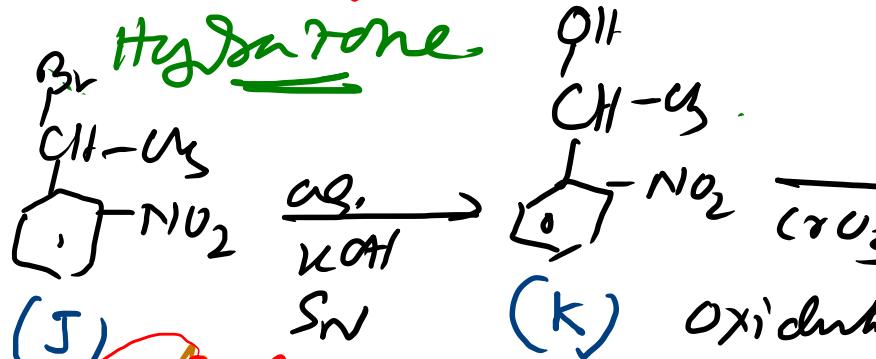
Hydroxine



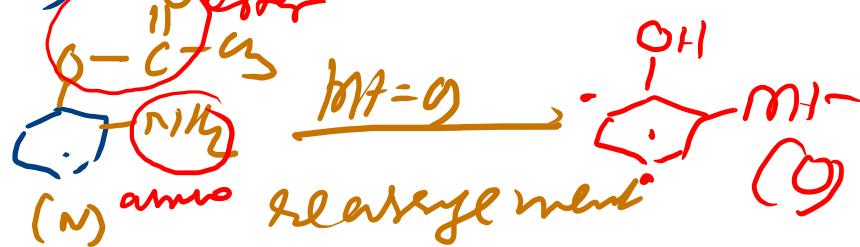
$$7V \text{ per } \underline{\text{mild steel}} = 4.5 - 5.5$$



B_r Hydronium

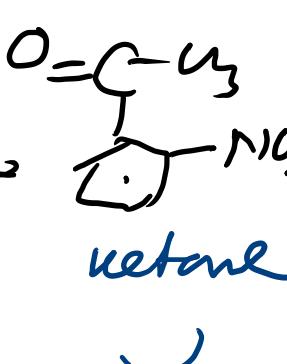


Opster



(n) anno

Reasysl mnd



↑ mcpB₂

Bayer
Villegas
Oxidant



Inire

1



Enamine.

(2) Lunes



: Real maps - 13: