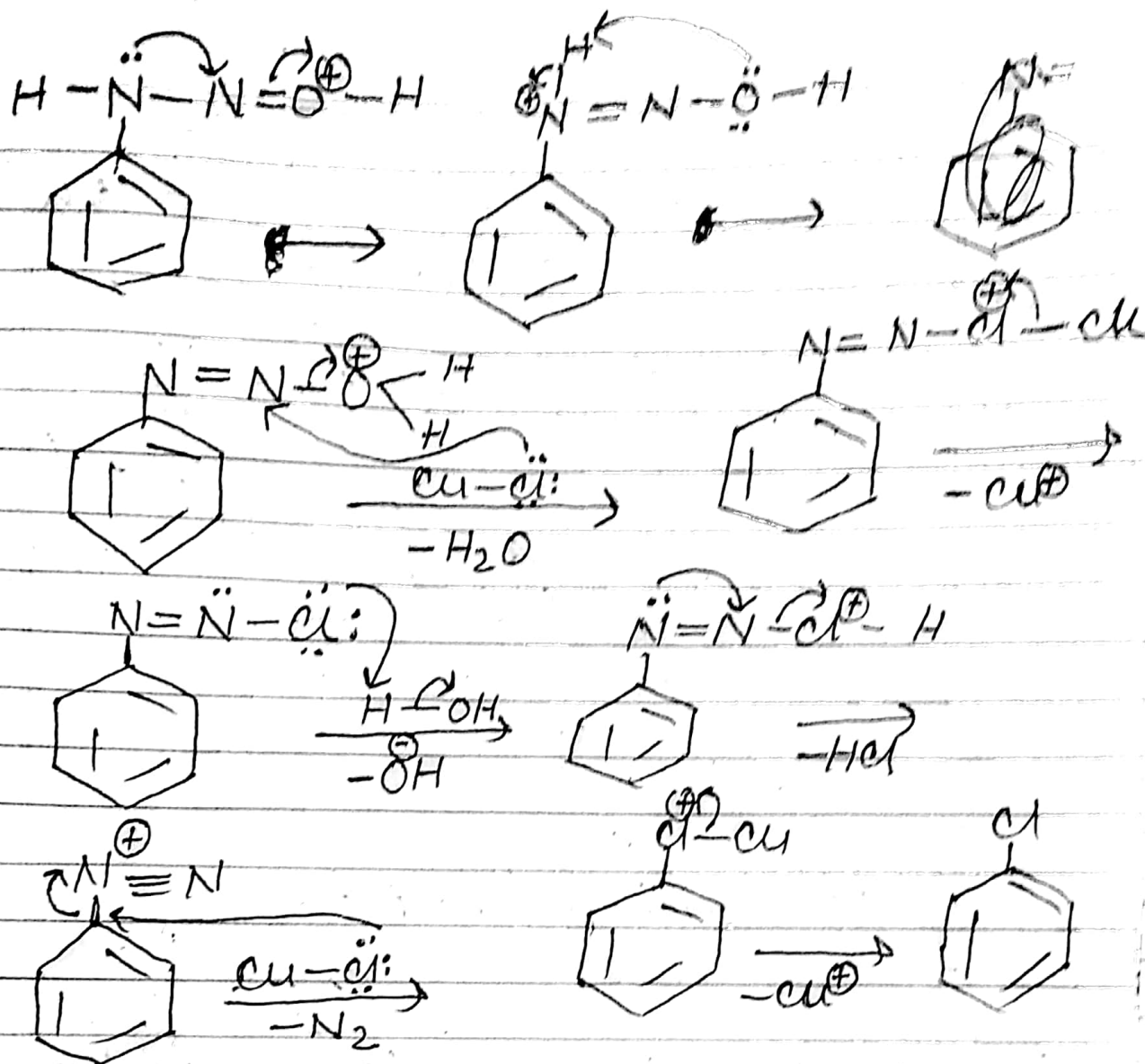
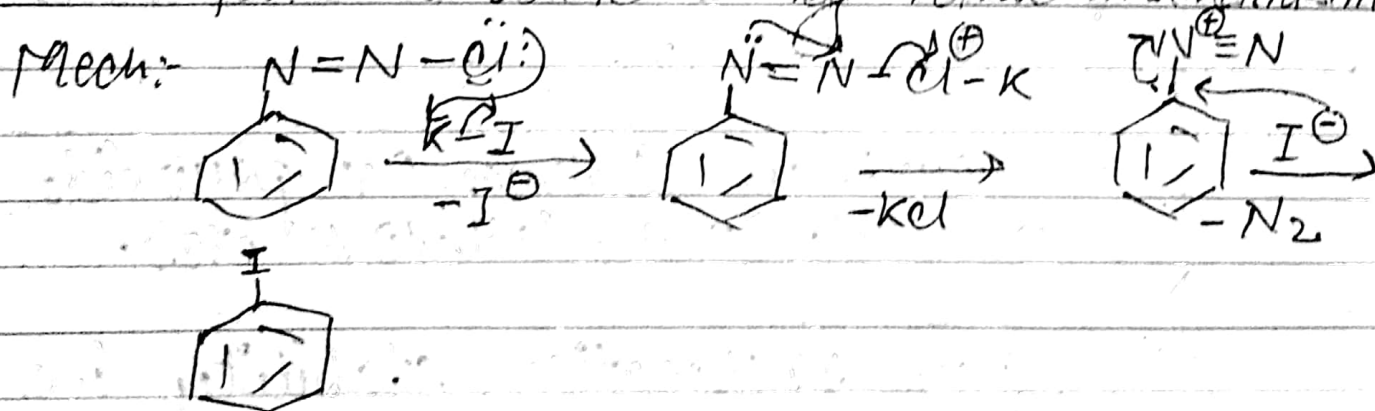


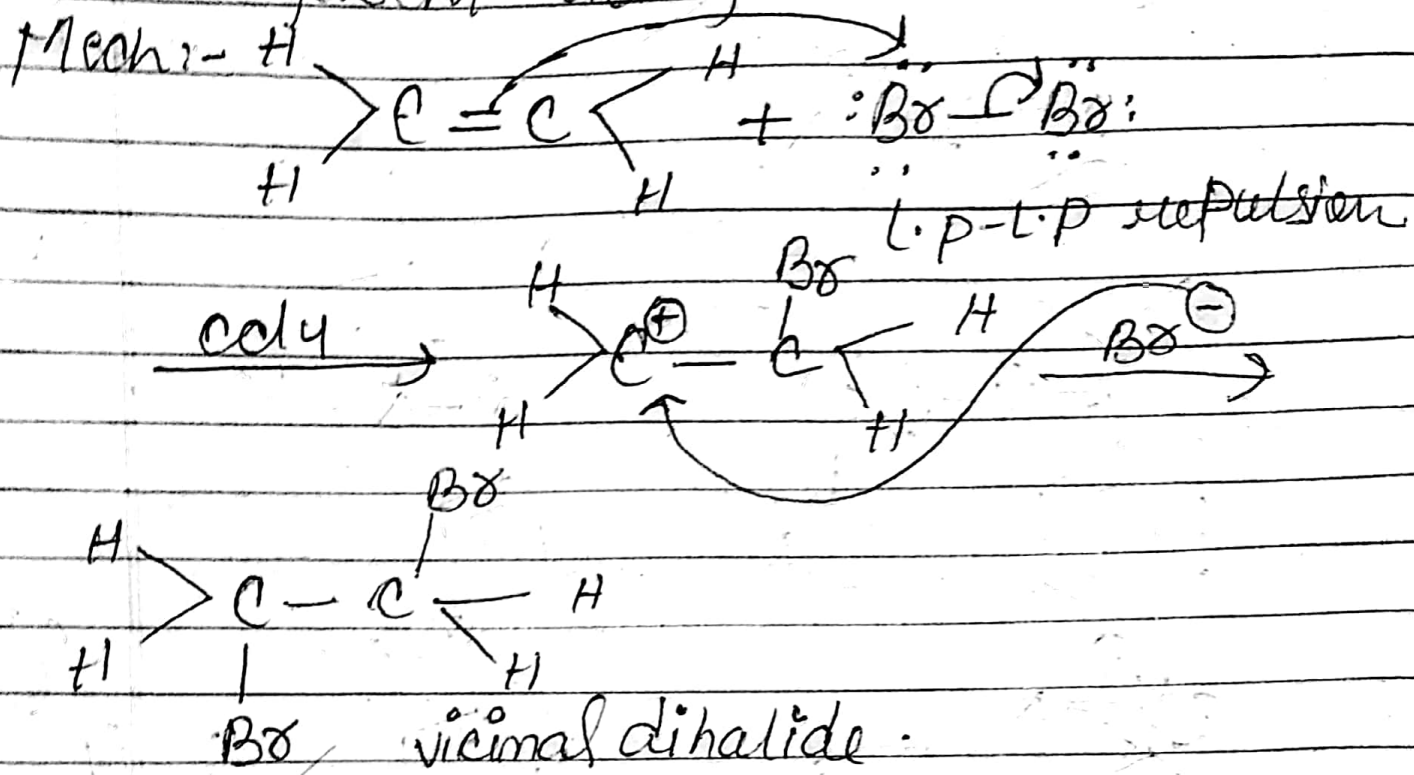


(b) ~~write~~ when benzene diazonium chloride reacts with KI then $\tilde{\text{N}}$ from iodobenzene by ionic mechanism.



(X) from alkene: - when alkene reacts with halogen in presence of FeCl_3

then form vicinal dihalide
(when two halogen present on adjacent atom).



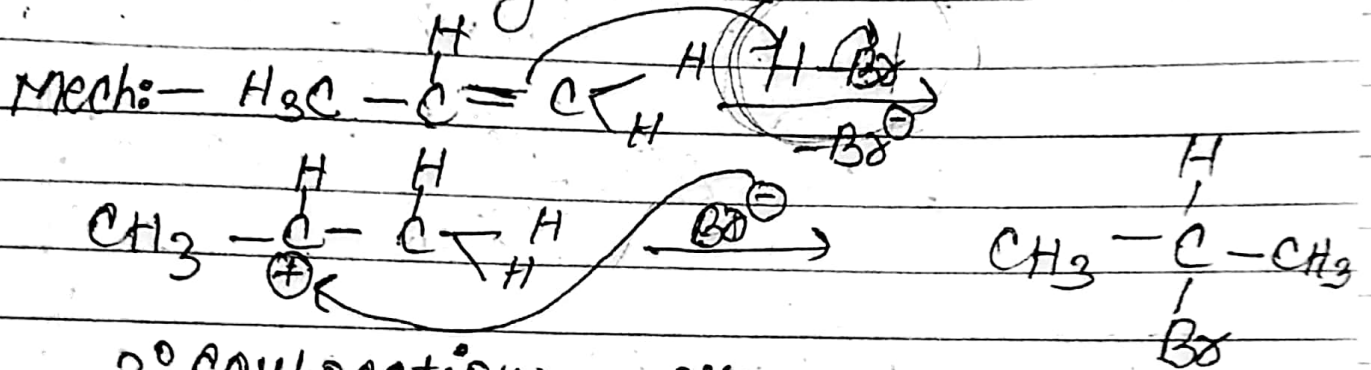
* Markovnikov's rule :- Richer becomes richer and poor becomes poor. on the basis of hydrogen atom attach with double bonded carbon atom.

→ It occurs in absence of peroxide (H_2O_2 , $\text{CH}_3\text{CO}_2\text{H}$, $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ etc).

→ It obey carbocation stability i.e negative part of reagent attack on more stable carbocation but positive part of reagent

attack on less stable carbocation.

→ when alkene react with halogen acid then form alkyl halide.



2° carbocation more stable.

* Halogen exchange reaction:-

→ those reaction in which one halogen replace to other halogen. It occurs by two methods

(a) Finkelstein and (b) Swarts.

(a) Finkelstein reaction:- when one alkyl halide react with sodium halide then form other alkyl halide by ionic mechanism. Here ^{more} E.N halogen replace to less E.N halogen (i.e. vice-versa impossible).

Mech:- $\text{C}-\text{C}-\text{Br} + \text{NaI} \rightarrow \text{C}-\text{C}-\text{I} + \text{NaBr}$

NaI * (reactⁿ does not occurs because less E.N I, cannot replace to more E.N Br.)