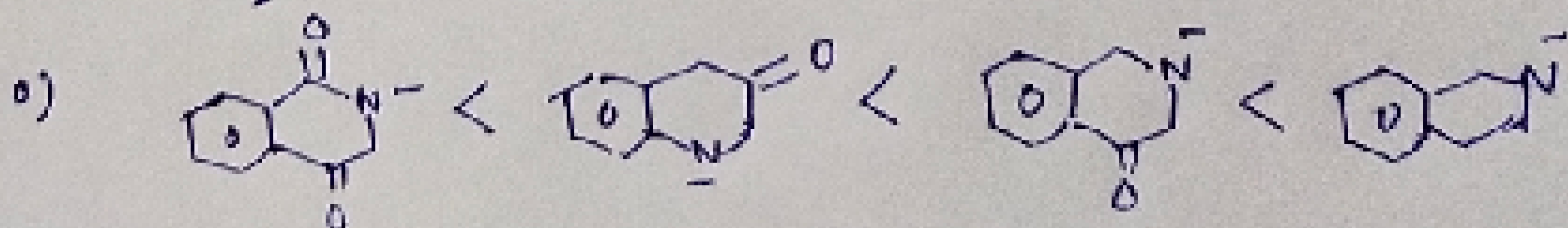
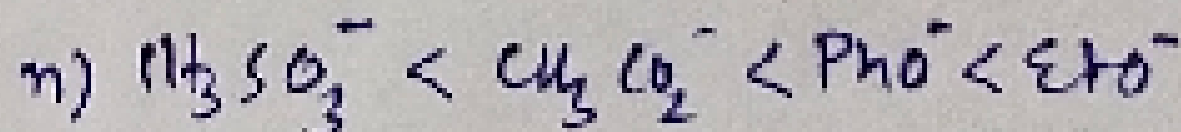
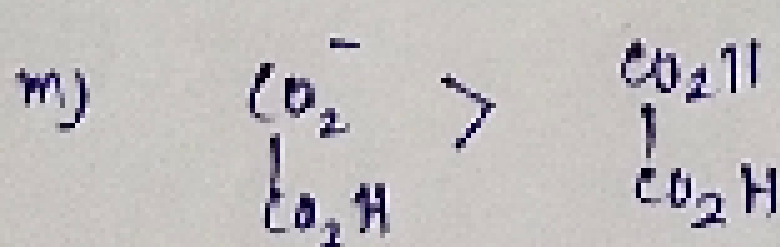
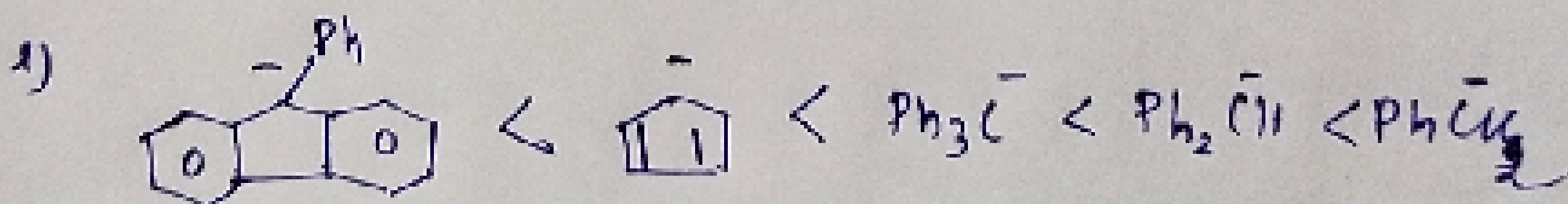
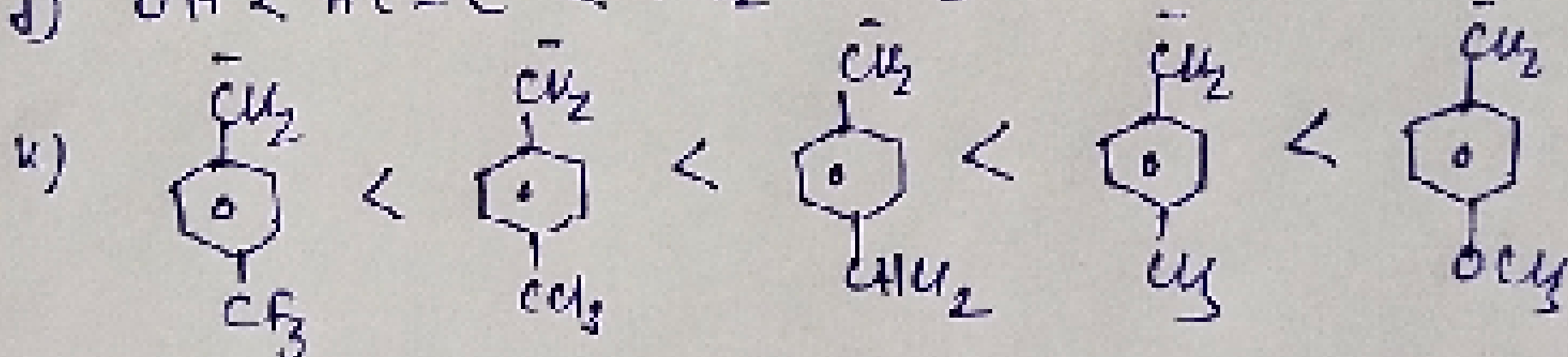
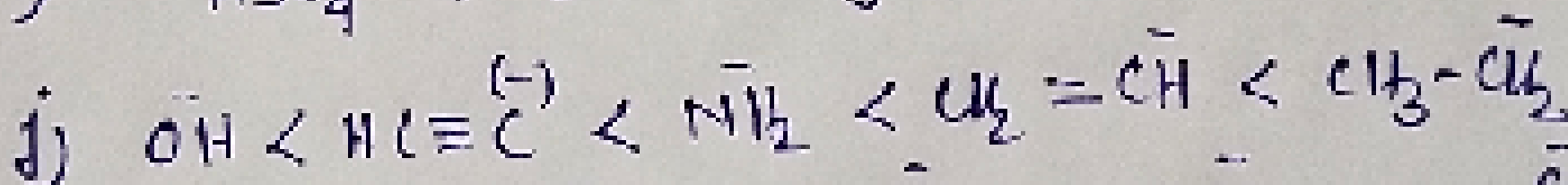
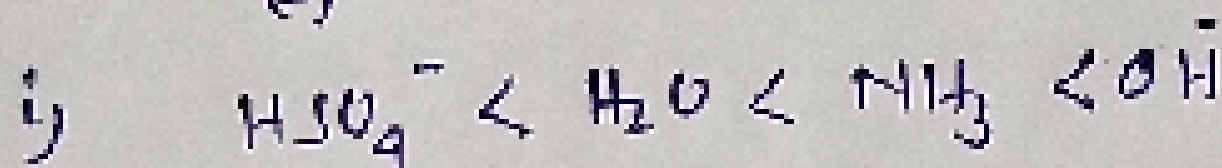
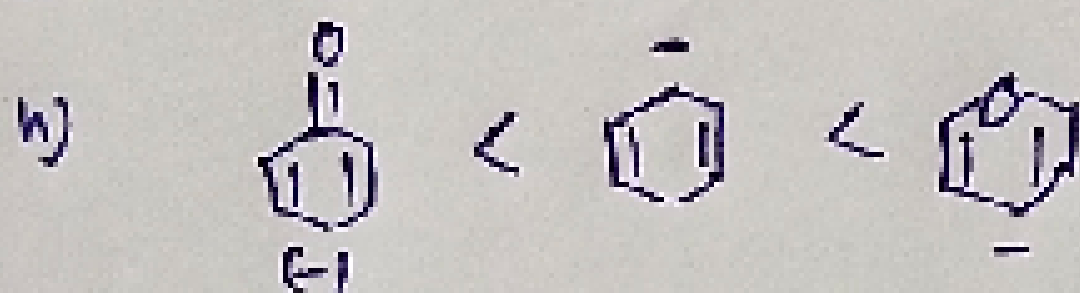
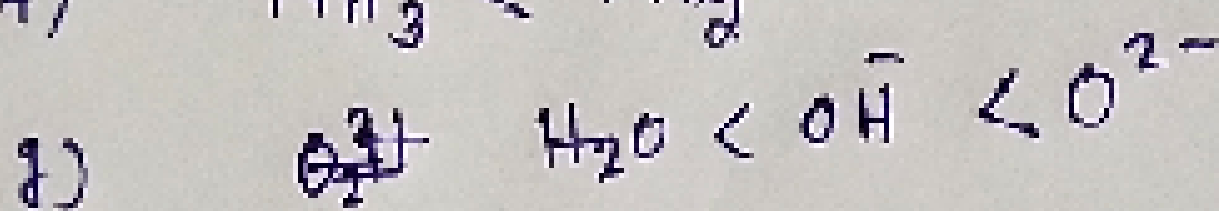
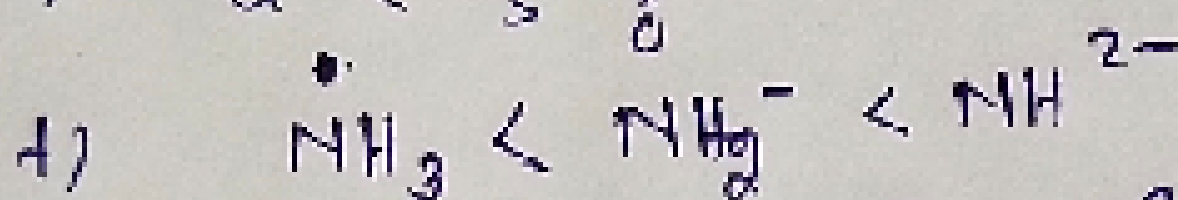
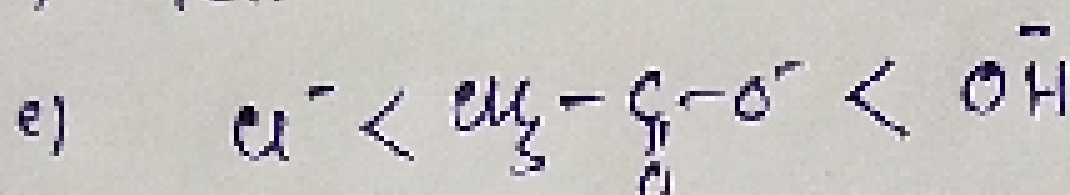
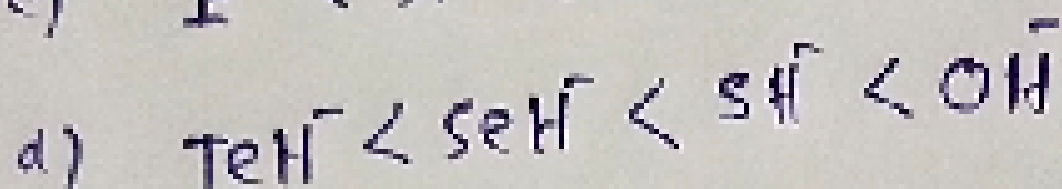
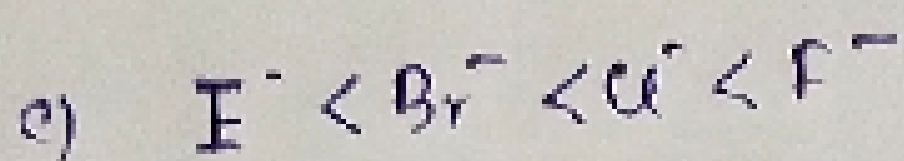
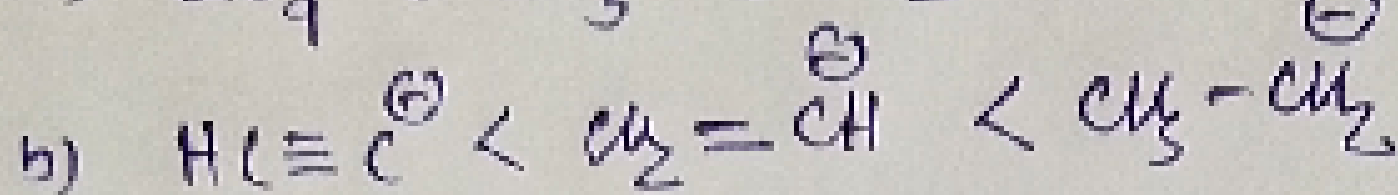
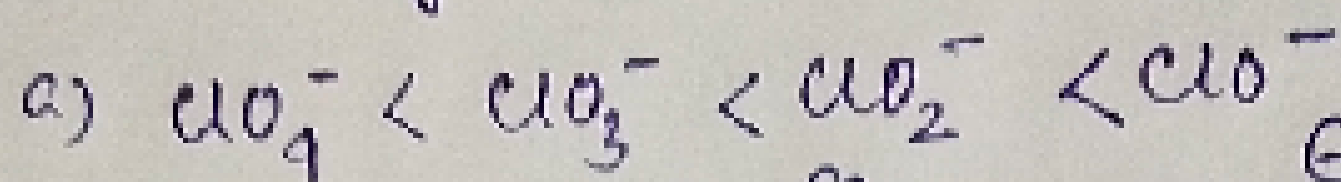


: Basic strength :

1

— recharged ion/species:



Stability order is reverse
⇒ ordering basic strength
order

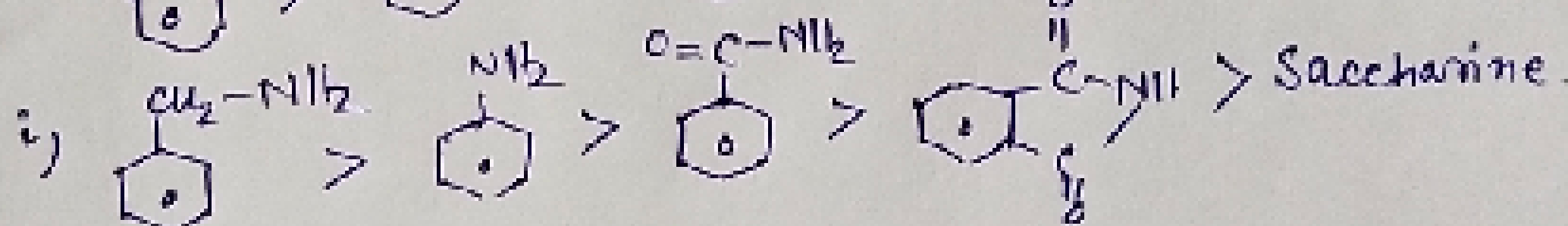
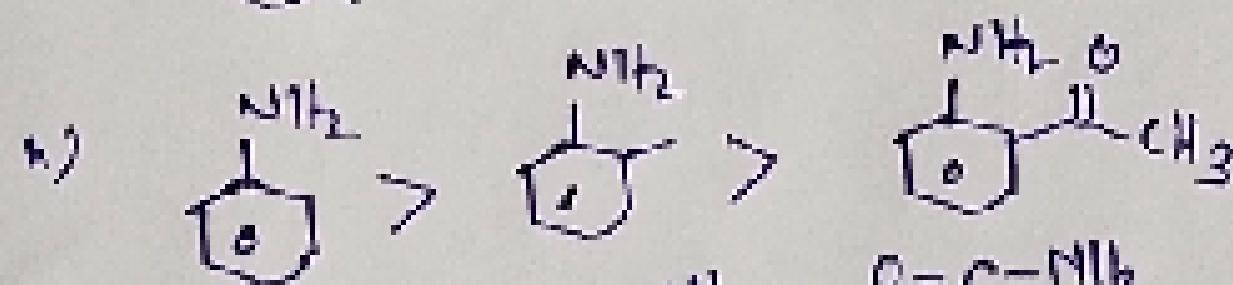
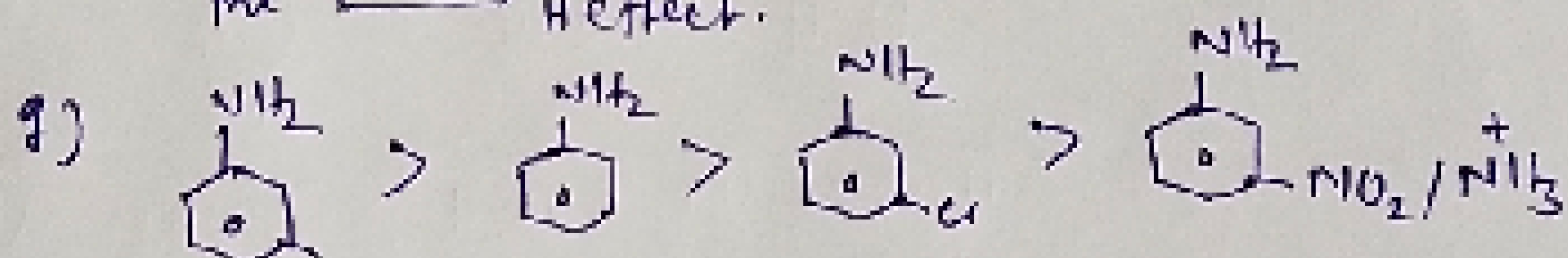
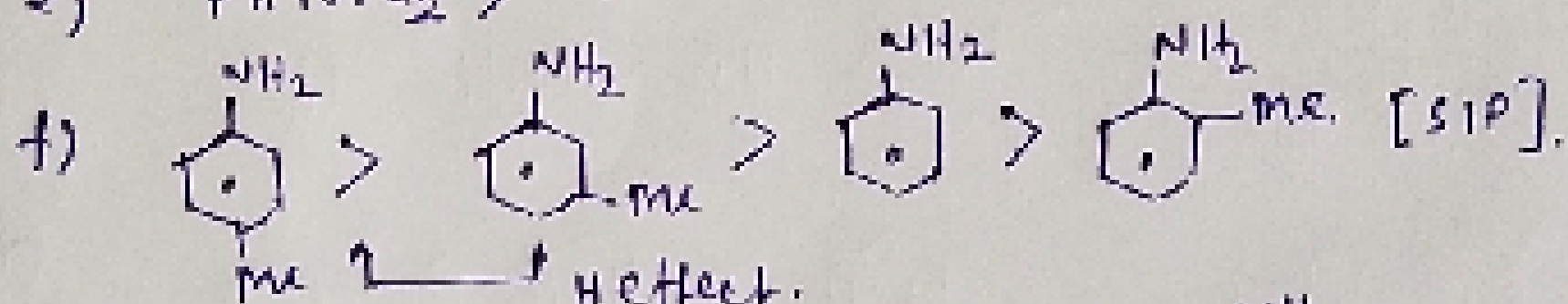
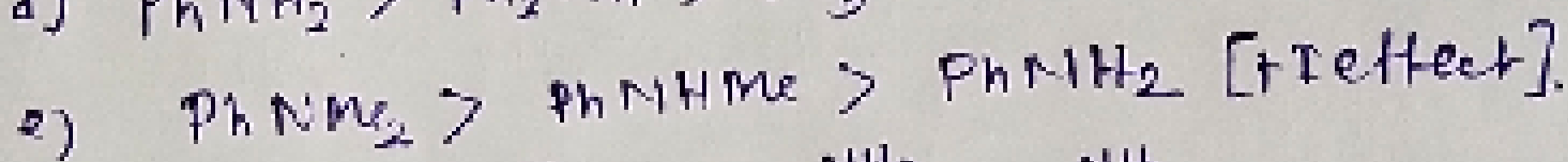
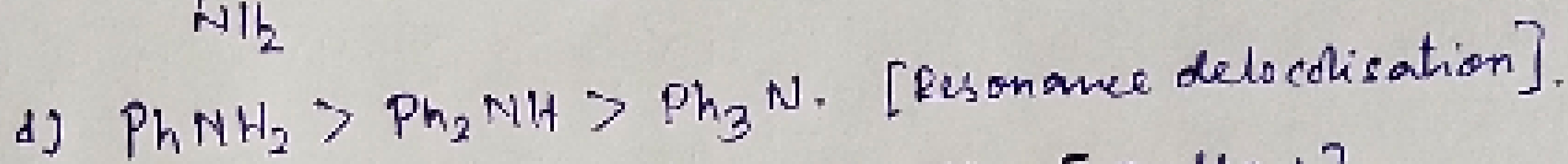
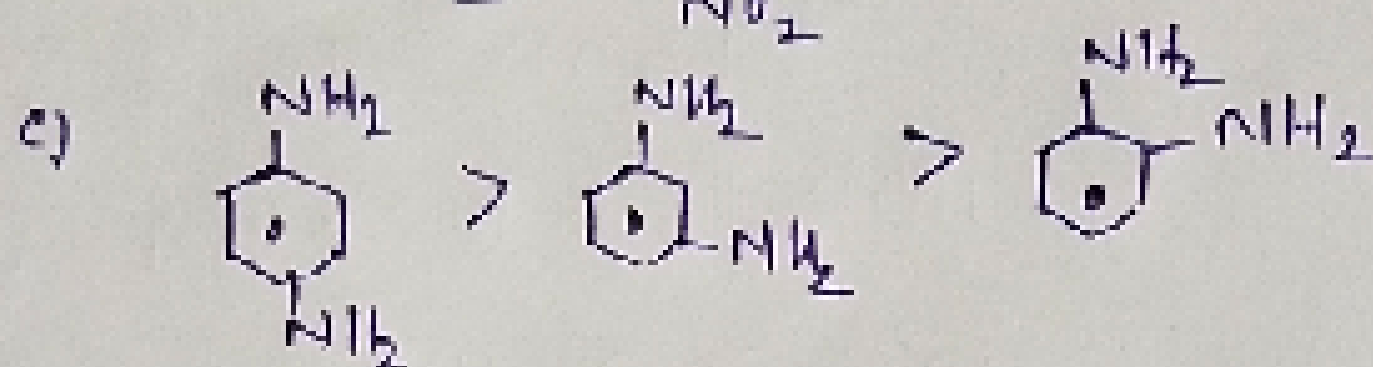
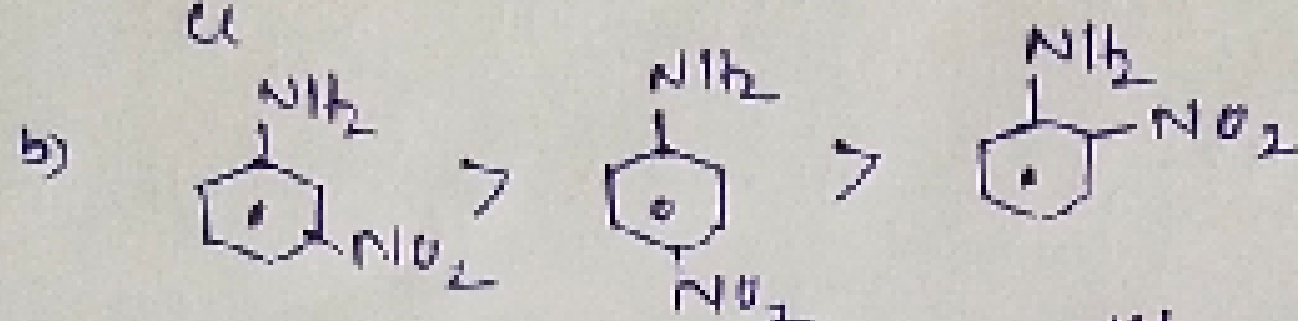
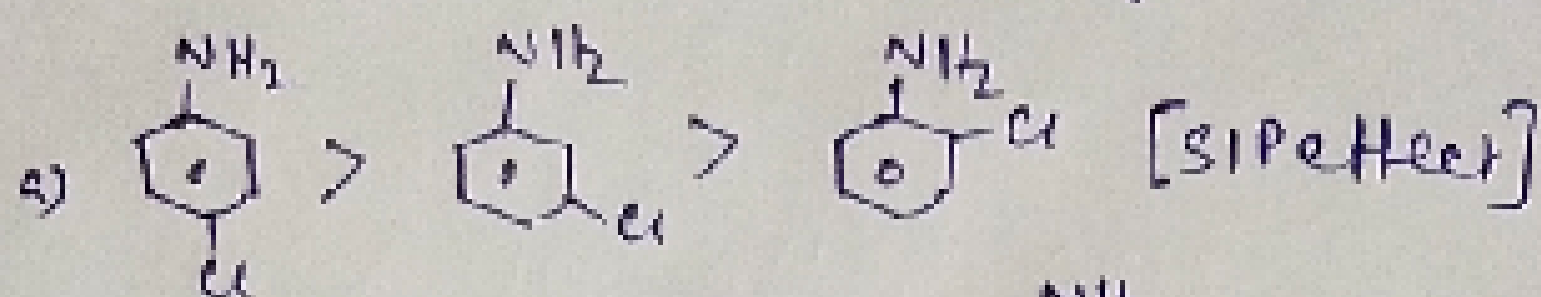
⇒ sp hybridized carbon
is more electronegative than N
but less electronegative than O.

⇒ R^\ominus is the strongest base

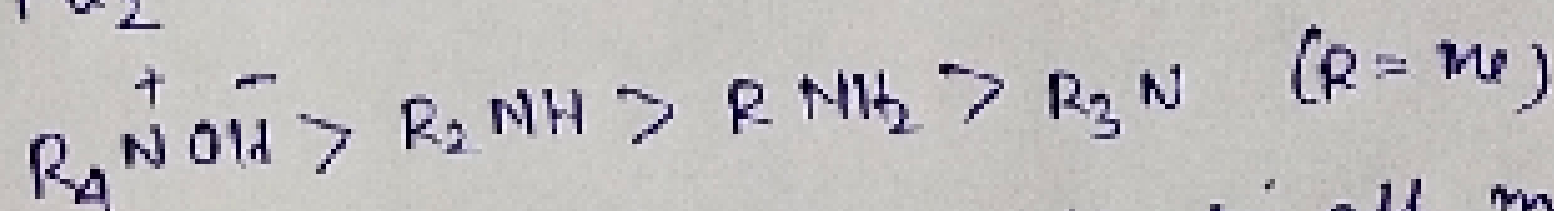
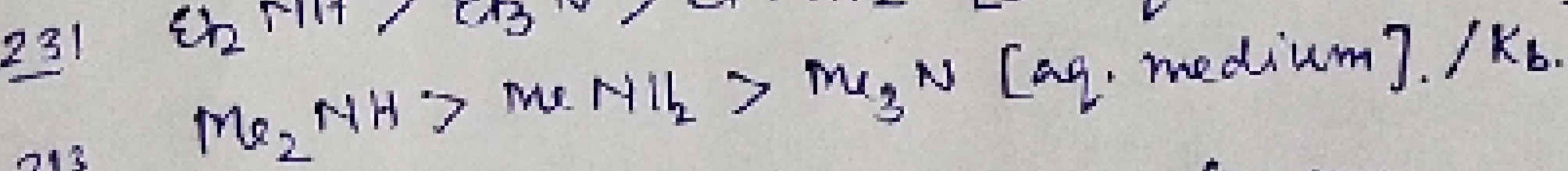
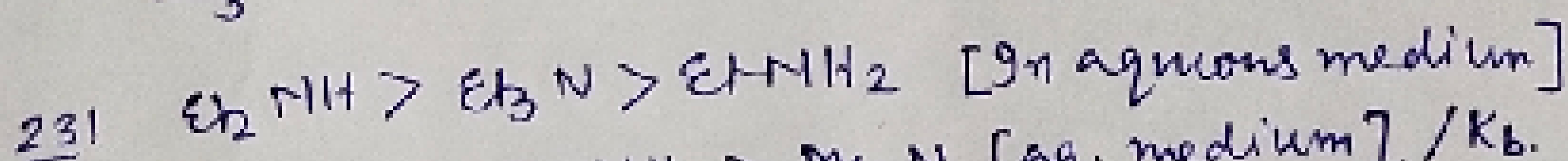
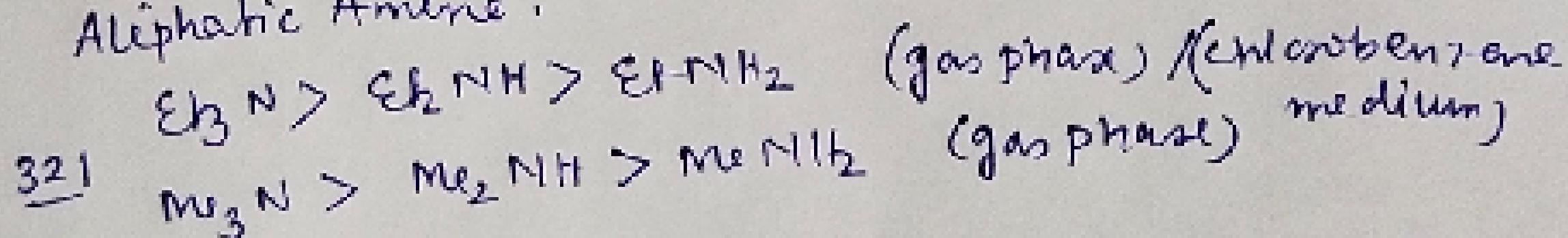
⇒ FC-SO_3^- is the
weakest organic
base.

: Aniline derivative: [Basic strength order].

2



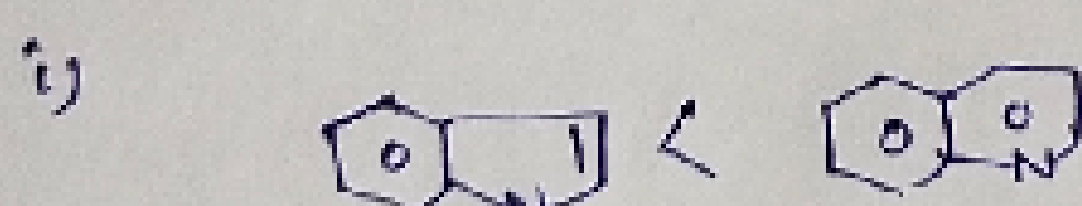
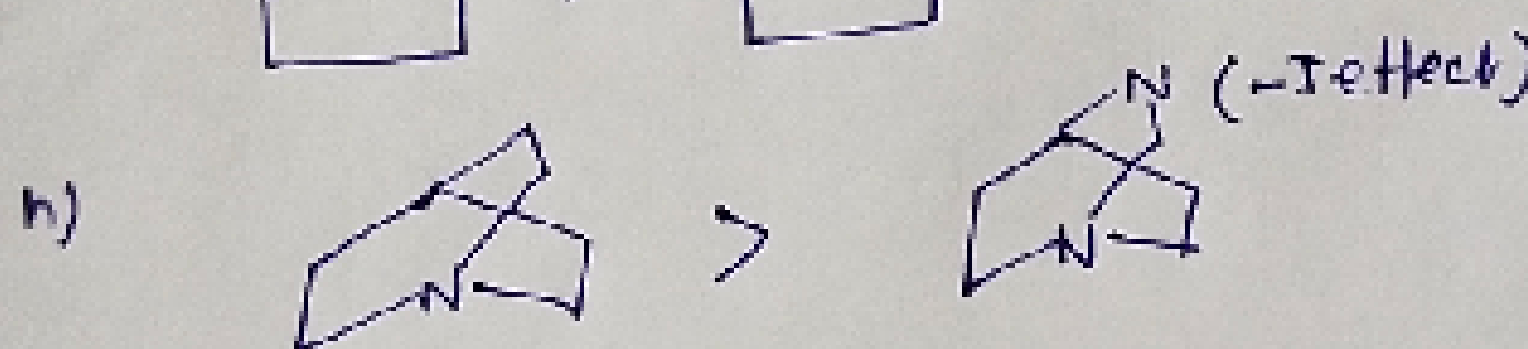
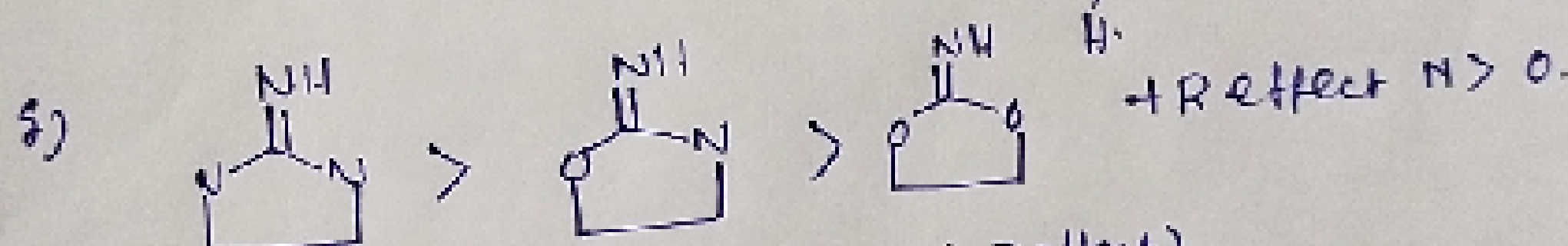
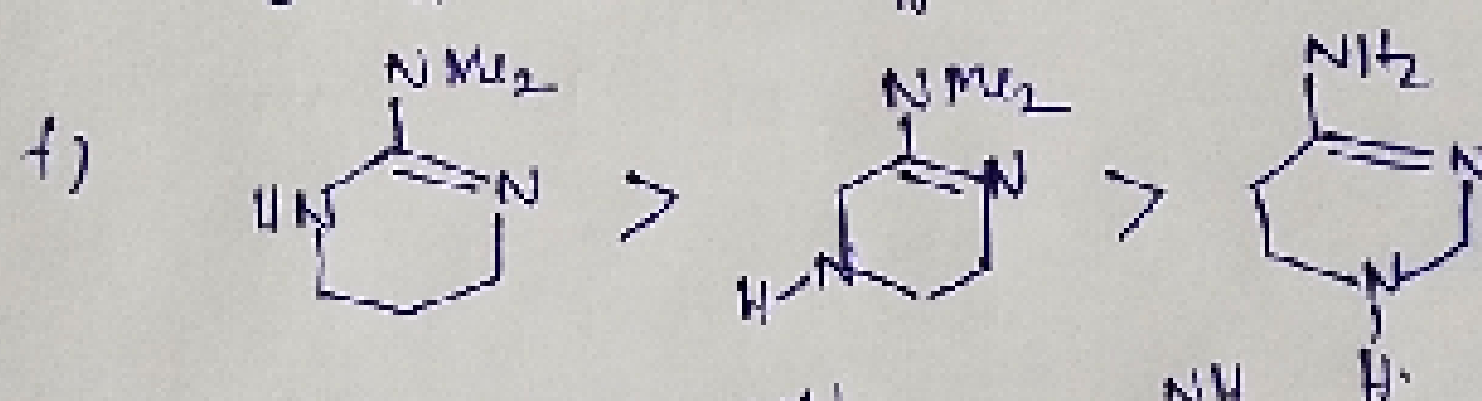
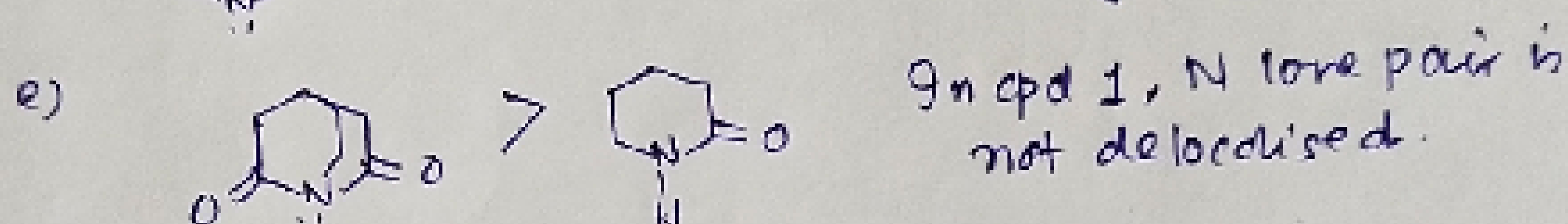
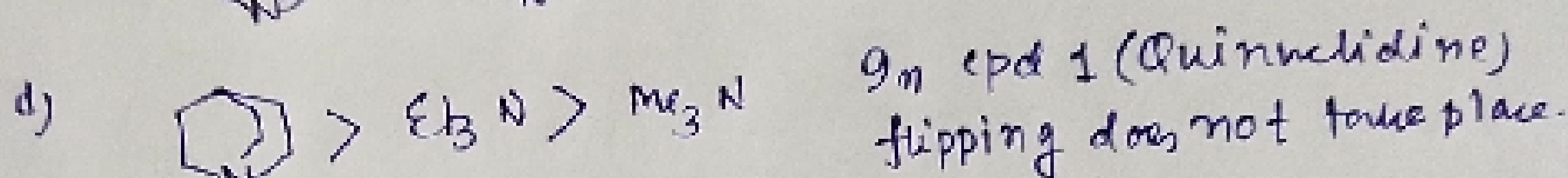
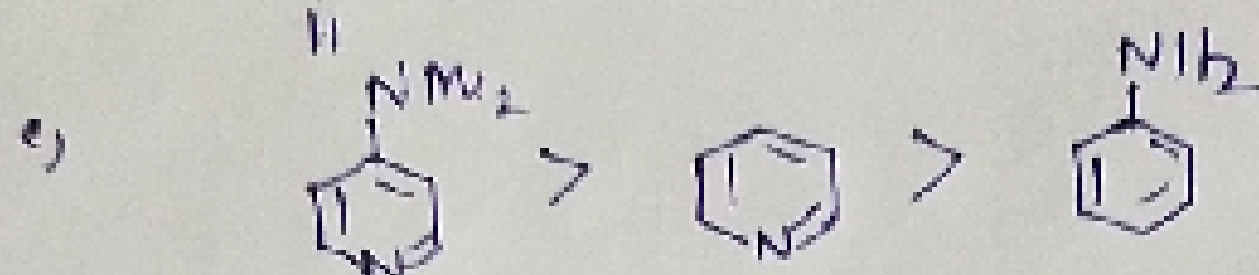
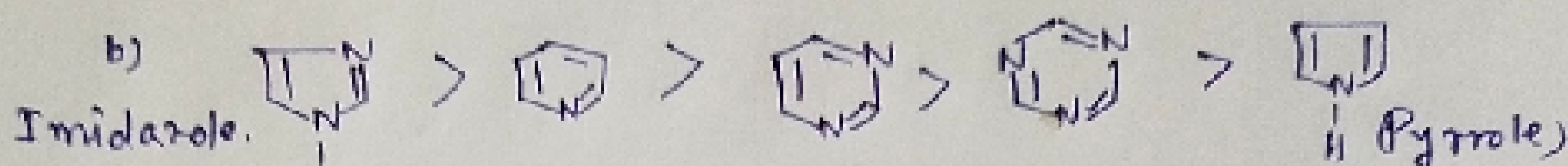
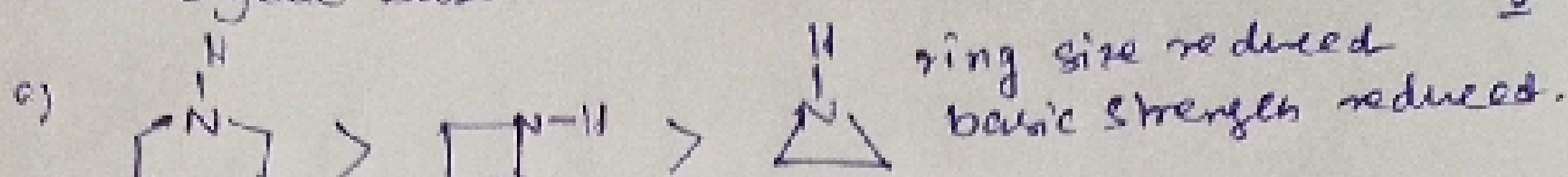
Aliphatic Amine:



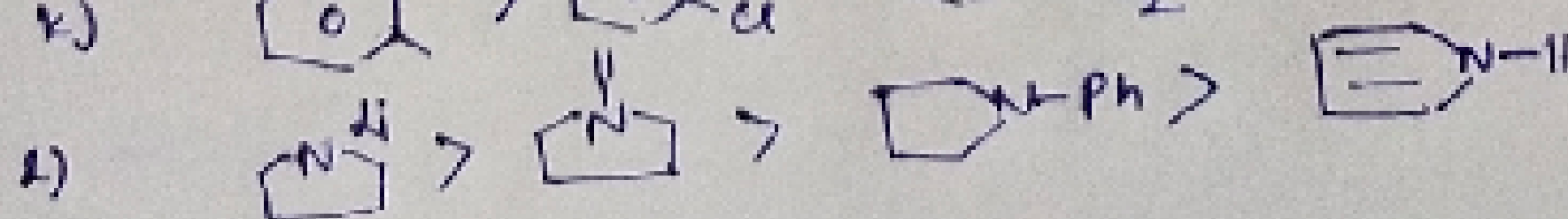
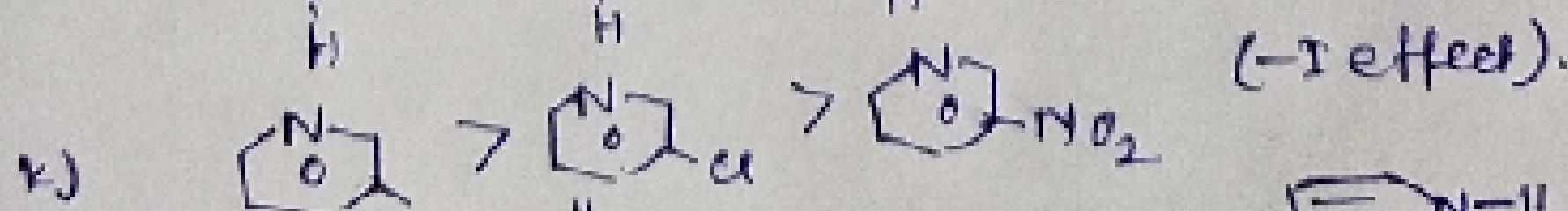
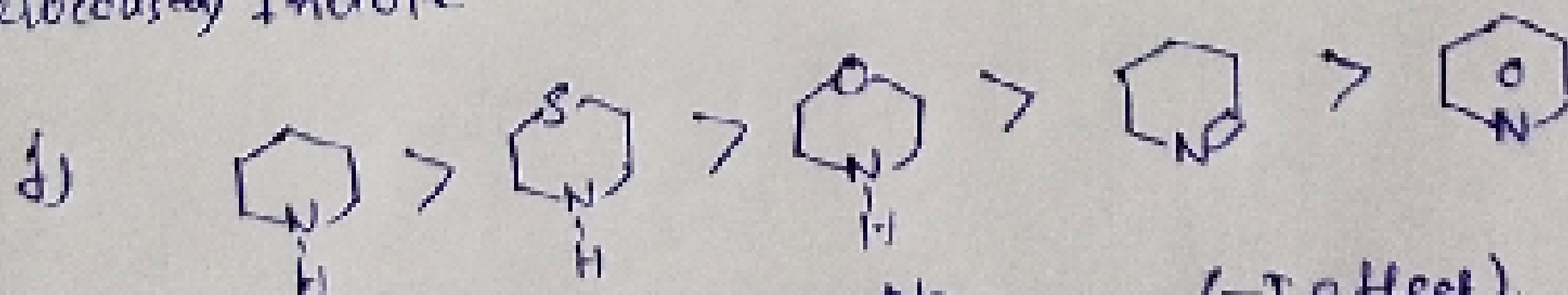
NH_3 is least basic w.r.t all in all medium

: Heterocyclic base:

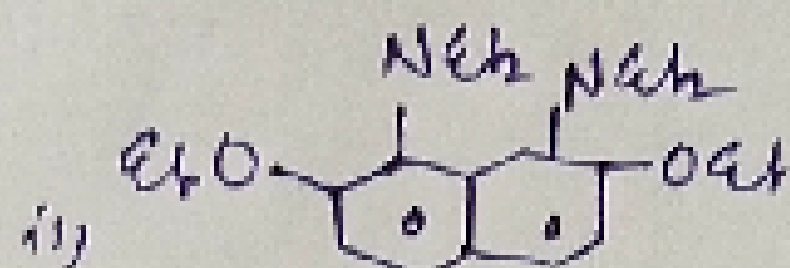
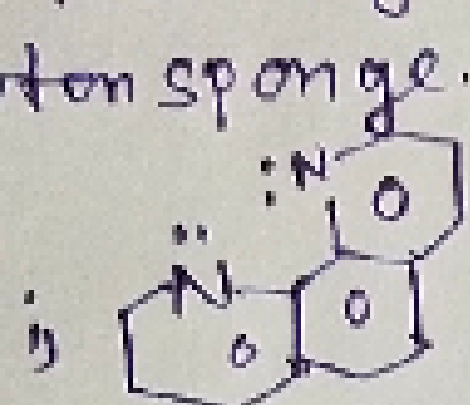
3



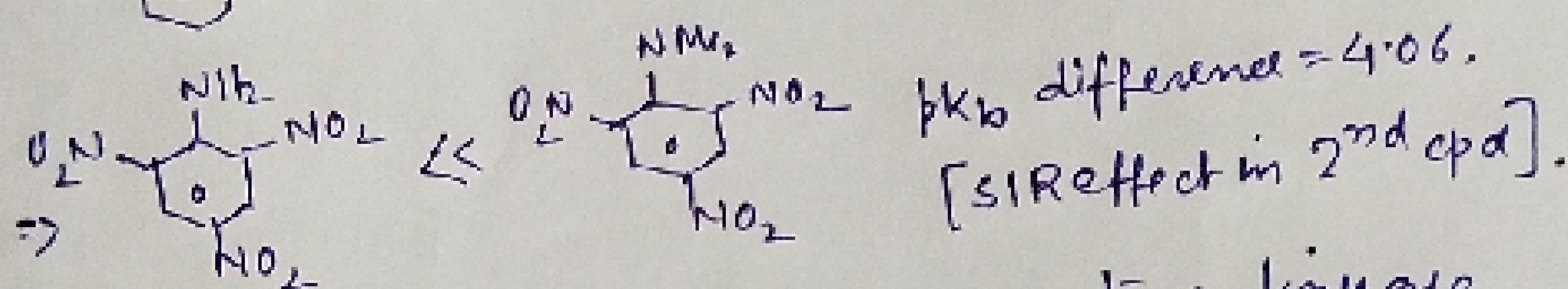
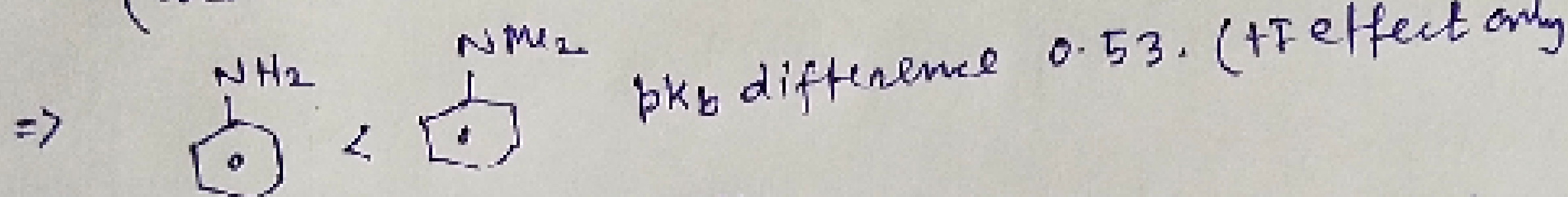
(delocalised) Indole Quinoline (localised lone pair)



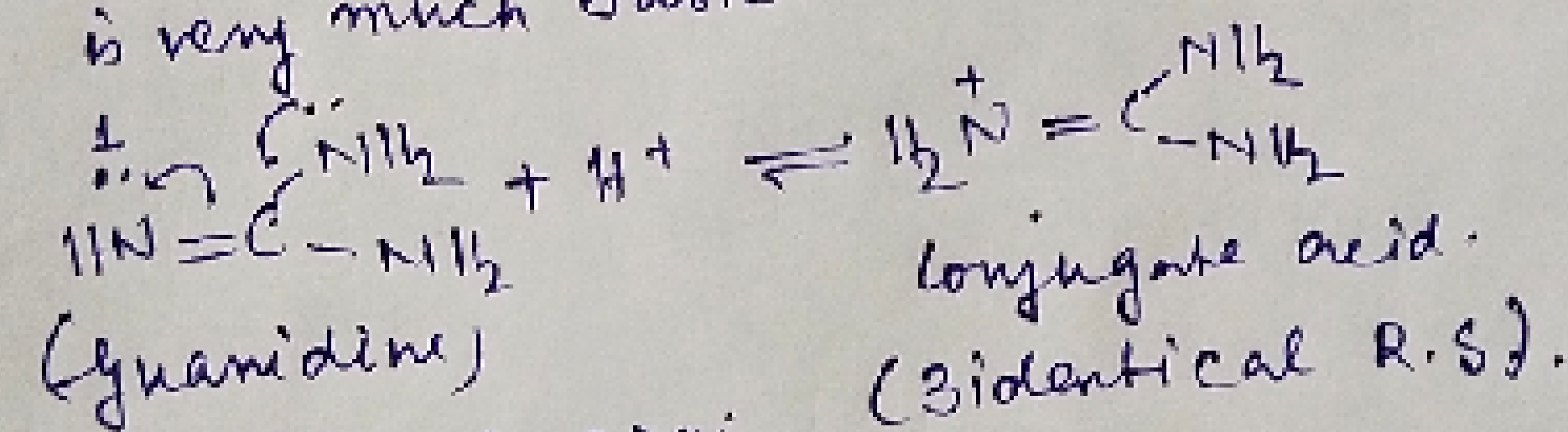
⇒ The following nitrogenous bases are called proton sponge.



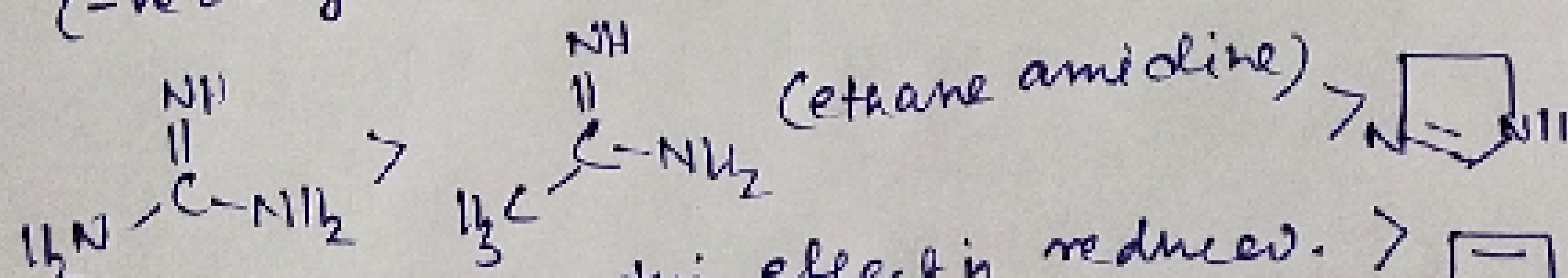
conjugate acid is stabilised through chelation. Compound itself has lone pair - lone pair repulsion (localised lone pair) which makes it very much basic.



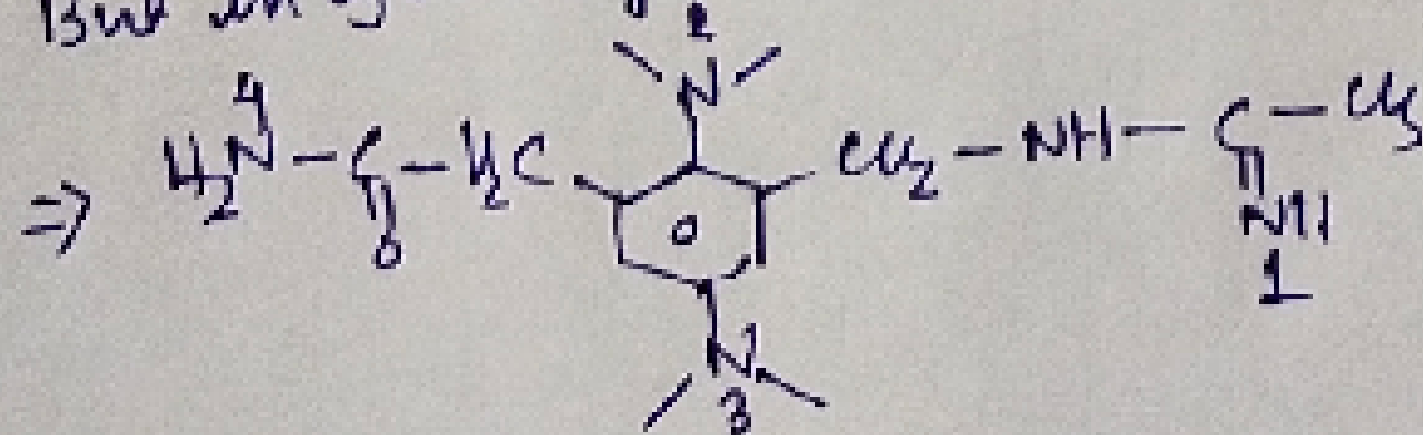
⇒ Compounds having guanidine type linkage is very much basic.



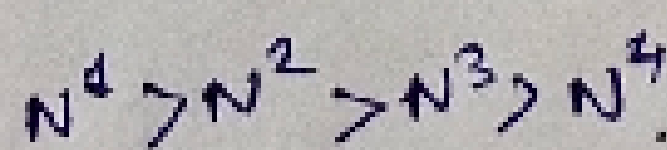
localised lone pair (-ve charge on N) → makes it very much basic.



But in cyclic system this effect is reduced. > C1=CN=CN1

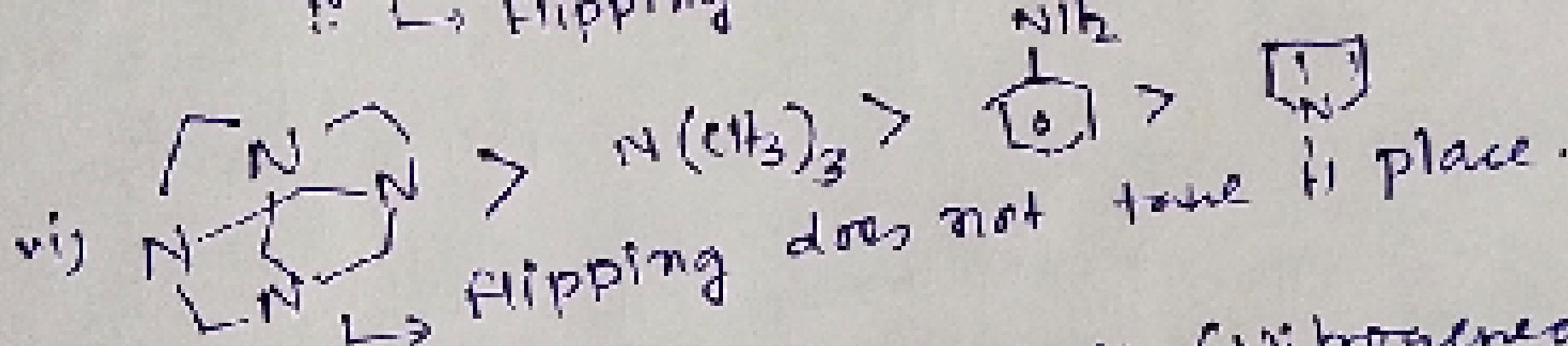
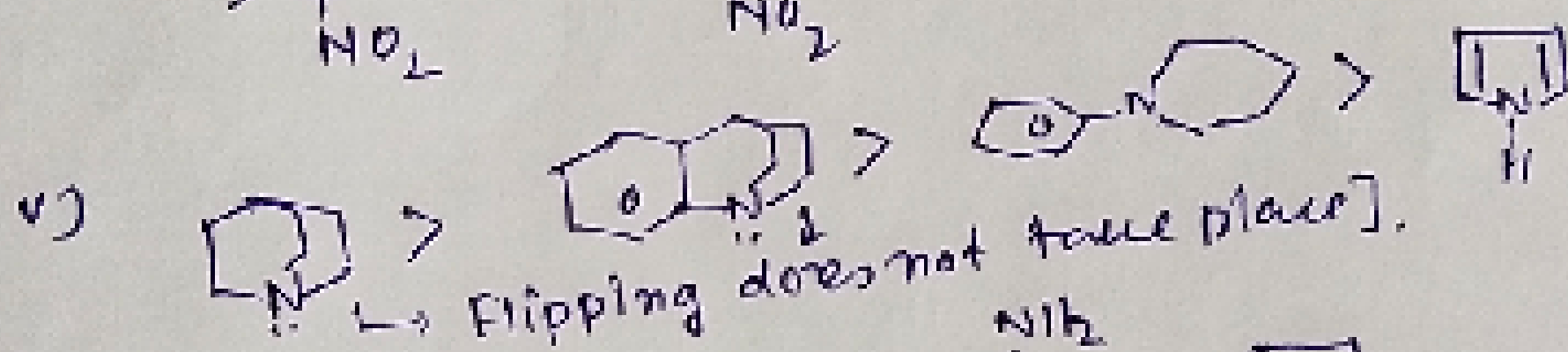
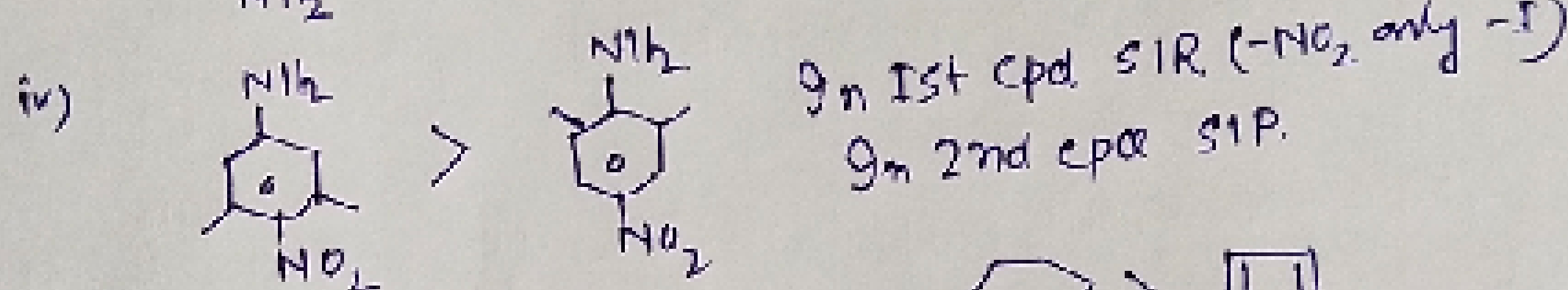
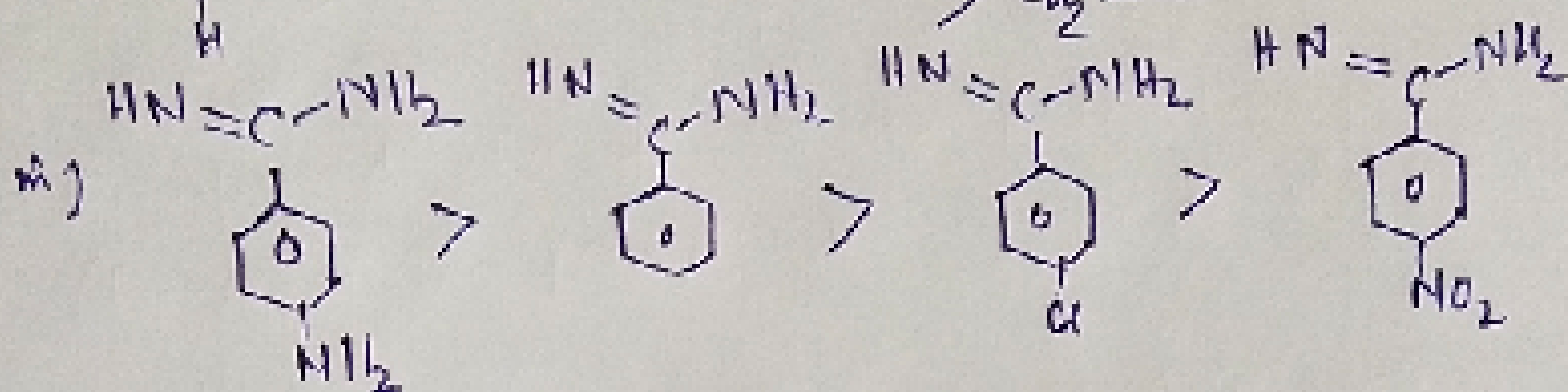
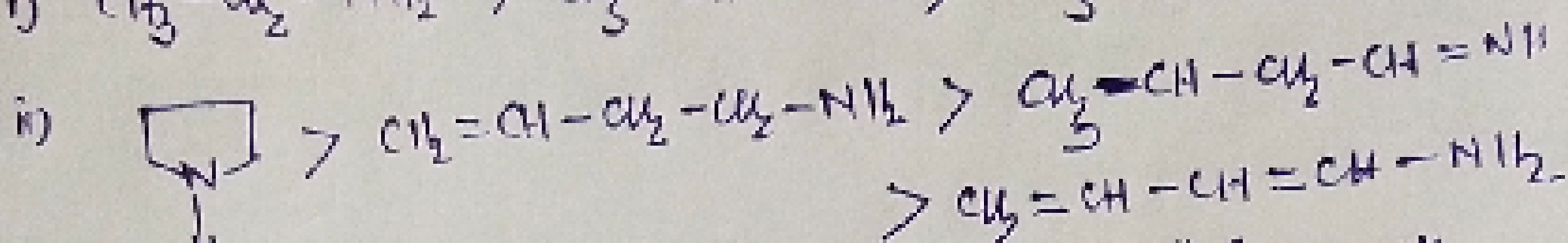
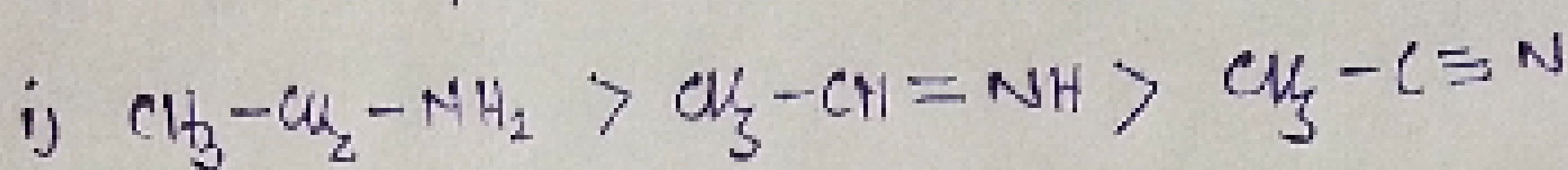


Basic strength:

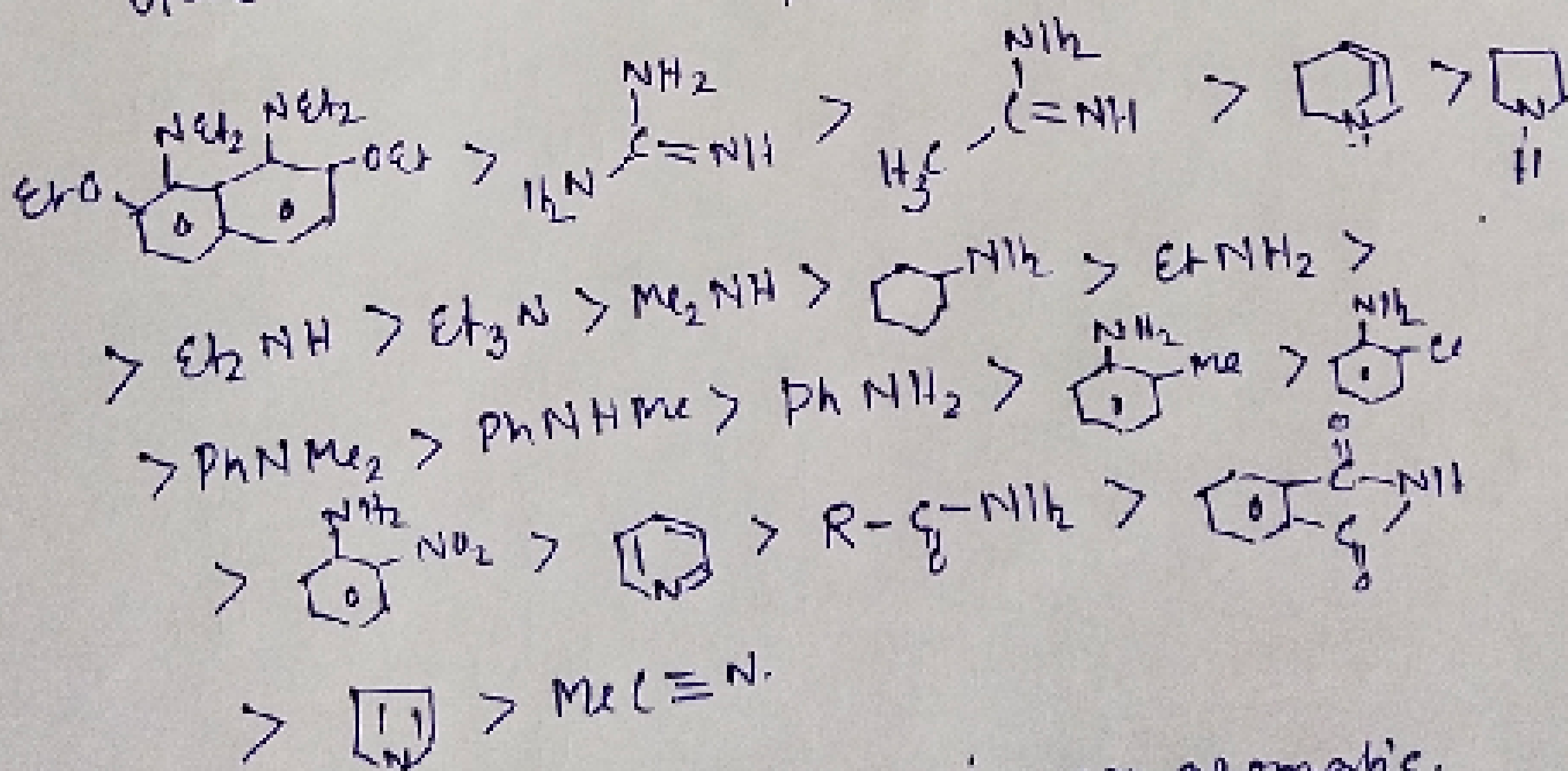


Other examples of basic strength:

5



General order of basic strength (Nitrogenous).
 pKa order \equiv Basic strength order.



\Rightarrow conjugate acid of Pyrrole is nonaromatic.