is more en than N

but less en than o.

=> RO is the strongertbane

weakest erganic

## : Basic strength:

- we charged ion/species:

a) 
$$uo_{4}^{-} < uo_{5}^{-} < uo_{2}^{-} < cuo_{5}^{-} < c$$

m) 
$$(0\frac{1}{2} > \frac{co_2 11}{co_2 H})$$
 n)  $11\frac{1}{3} so_3^{-1} < cu_3 co_2^{-1} < Pho^{-1} < E+\sigma^{-1}$ 

## : Anileine desirative: [Basic strength order]. a) July Silver [silver] PhNH2 > Ph2NH > Ph3N. [Resonance delocalisation]. PhNM27 PhNHMe > PhNH2 [treffect]. 1) \( \frac{\mathbb{N}{\mathbb{H}\_2}}{\mathbb{N}} > \frac{\mathbb{N}{\mathbb{H}\_2}}{\mathbb{N}} > \frac{\mathbb{N}{\mathbb{H}\_2}}{\mathbb{N}} > \frac{\mathbb{N}{\mathbb{H}\_2}}{\mathbb{N}} \) Heffect. 11/2 > 11 1) 1/2 > 1/2 > 1/4 o c/43 i) cu2-NIb NIb c=c-NIb Contine > Saccharine. Aléphatic Americ: EBN > ELNH > EL-NH2 (gas phase) (encorbentane medium) Mez NH > Mez NH > Me NH2 (gas phase) medium)

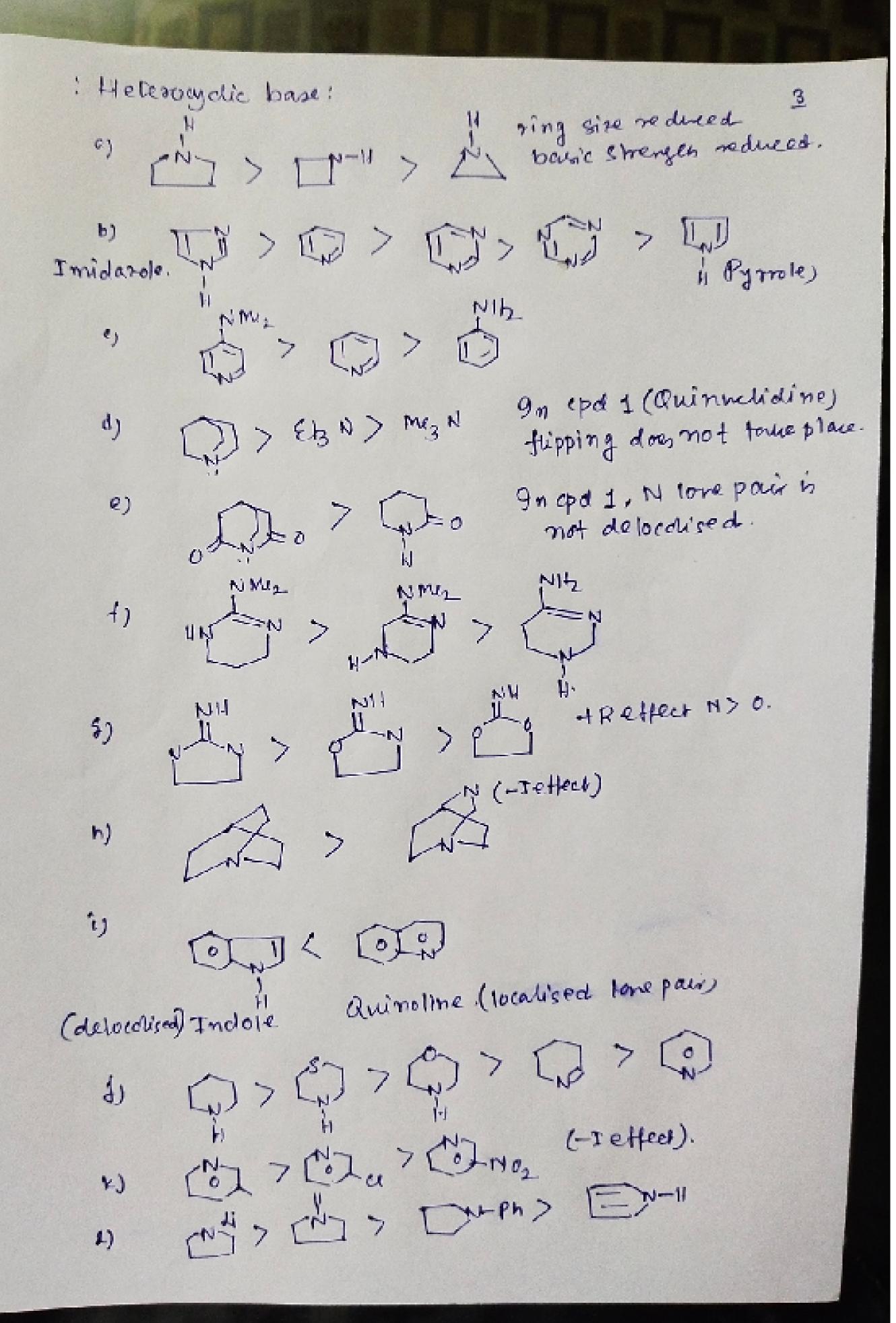
231 Etz NIH > Etz N > Et NIH2 [911 agricons medium]

Mez NH > Me NIL > Mez N [aq. medium]. / Kb.

213

RANOII > R2 NH > R NIL > R3 N (R= Me)

RANOUT > K2 MM / P. 1.2 M all medium



=) The following nibrogene one bases are called 4 proton sponge.

in ero Web Nah

in ero our conjugate acid is stabilised through chrelation. Compound it self has lone pair - lone pair repulsion (localised lone pair) which makes it very much basic. NH2 NM2 pkb difference 0.53. (+Felfect only pkb difference = 4.06. O'N TO NOT K O'N TO NOT [SIReffect in 2nd cpd]. => Compounds having quanidine type lineage is very much basic. 11N=C-N112 + 4+ = 12N = C-N112 (guanidine) longugate areid.

1 localised Imepair (3identical R.S). (-recharge on N) L-, makes it very much basic. NII (ethane amioline) 7 Juli

12N C-NII2 13C C-NUZ

But in cyclic system this effect is reduced. > Juli

3 H2N-G-12C Of cuz-NH-G-cy

NII Basic strength:

NI 7N2 > N3 > N4.

General order of basic strength (Ni trogeneous).

The order = Basic strength oster.

> ELZNH > Et3N > ME2NH > OTHE > ELNH2 >

> PHNMe2 > PHNHME > PHNH2 > OTHE > OTHE

THE > 2 Nor > 10 > R-8-11/2 > COTE-MIL

=) constignée accid of Pyrrole is non acomatic.