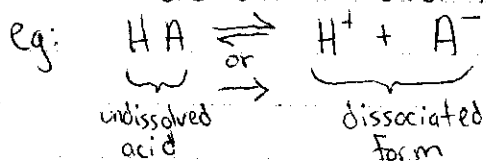


Acid Base Strength / Conjugate Acid  
Base Pair Equilibrium Reactions (war of better base)

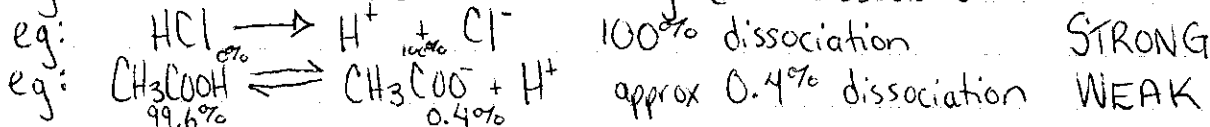
January 15, 2009

- concentration refers to the amount of acid (or base) per L of solution / does not matter if the acid is in dissolved form or not



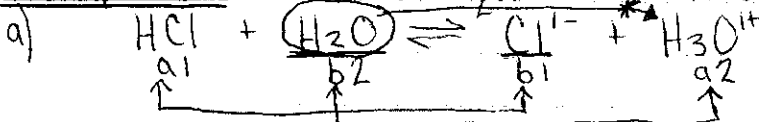
total concentration determines the acid's titration ability  
 $C_A$  is used to represent total acid concentration irrespective of dissociation

- strength refers to % dissociation or degree of dissociation



- weak acids have correspondingly stronger conjugate bases that do not easily surrender their protons

Example #2 - Acid Base Equilibrium Questions



bases are competing to get protons  
 (better base)

∴ lies right (more products than reactants)

∴ acidic ( $H_3O^+$  is present)

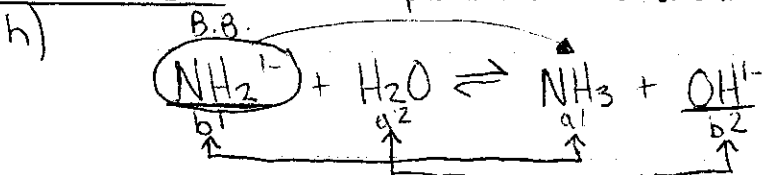
IF  $H_3O^+$  present - acidic

$OH^-$  present - basic

- could be reactants or products

- both are present - tough problem! \*@%!?@

Question #4 - all examples from #3 are intended to be bases



∴ lies right

∴ basic (ie:  $OH^-$  is present)