

Exam 2

④ pH 0.15M KF $K_a = 7 \times 10^{-4}$

$K_a \cdot K_b = K_w$
 $K_b = \frac{1 \times 10^{-14}}{7 \times 10^{-4}} = 1.43 \times 10^{-11}$

BASE (H⁺ acceptor)

$$\text{F}^- + \text{H}_2\text{O} \rightleftharpoons \text{OH}^- + \text{HF}$$

I	0.15M			
D	-x		+x	+x
E	0.15-x		x	x

$K_b = \frac{(x)(x)}{0.15-x} = 1.43 \times 10^{-11}$

$x = 1.46 \times 10^{-6} = [\text{OH}^-]$

pOH = 5.83

pH = 8.17

Apr 16-8:36 AM

⑤

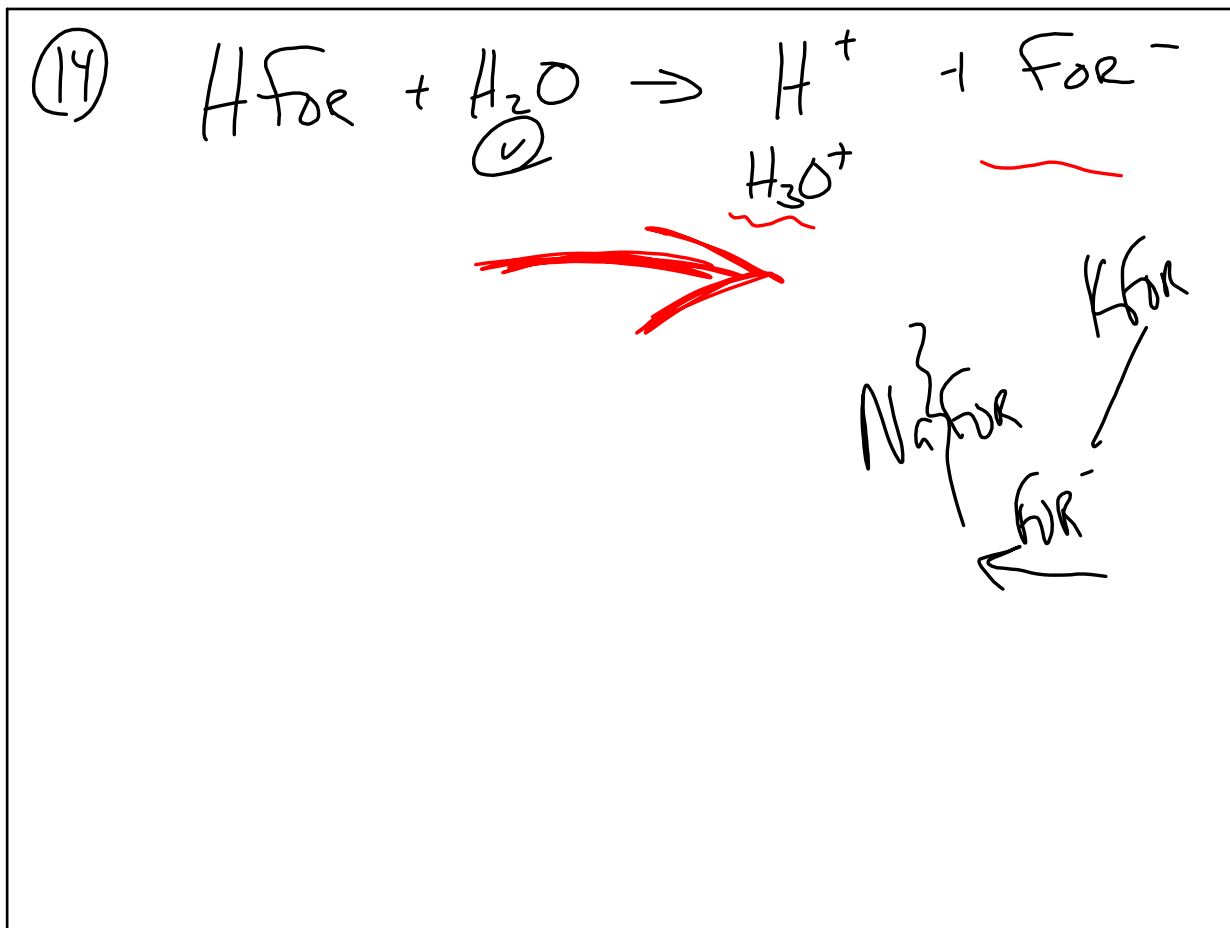
$$\text{HA} \rightleftharpoons \text{H}^+ + \text{A}^-$$

I	0.01M		
D	-x	+x	+x
E	0.01-x		x

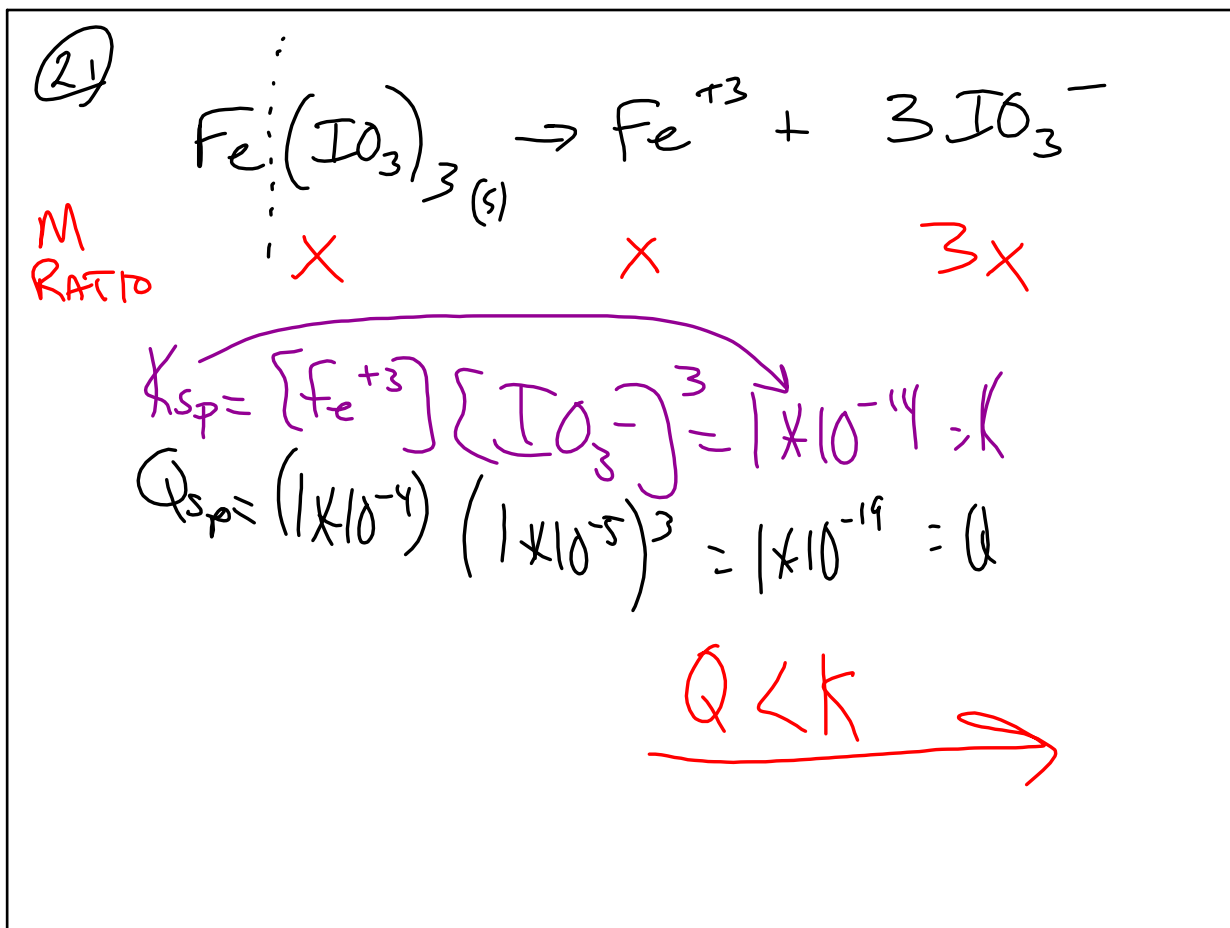
$K_a = \frac{(x)(x)}{0.01-x}$

$\text{pH} = 5.24$
 $\text{pH} = -\log[\text{H}^+]$
 $-5.24 = \log[\text{H}^+]$
 $[\text{H}^+] = 5 \times 10^{-6}$

Apr 16-8:52 AM



Apr 16-8:55 AM



Apr 16-8:57 AM

ORGANIC

Has C ← 8 million organic compounds

~ 750,000 inorganic compounds

-C- CH₄ methane

-C-C- ethane

C-C-C

C-C-C-C

C-C-C-C-C

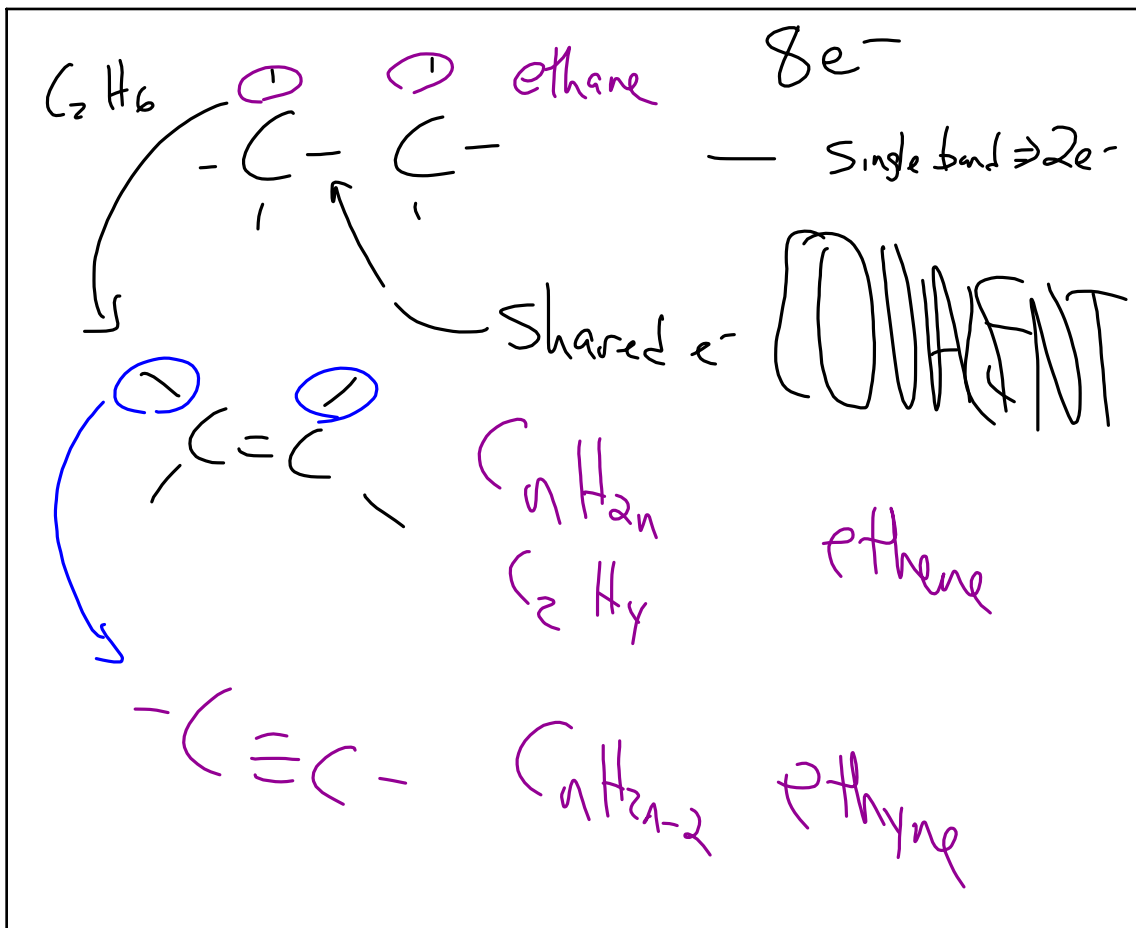
Apr 16-9:02 AM

Name of GO compds by hydrocarbons
C + H

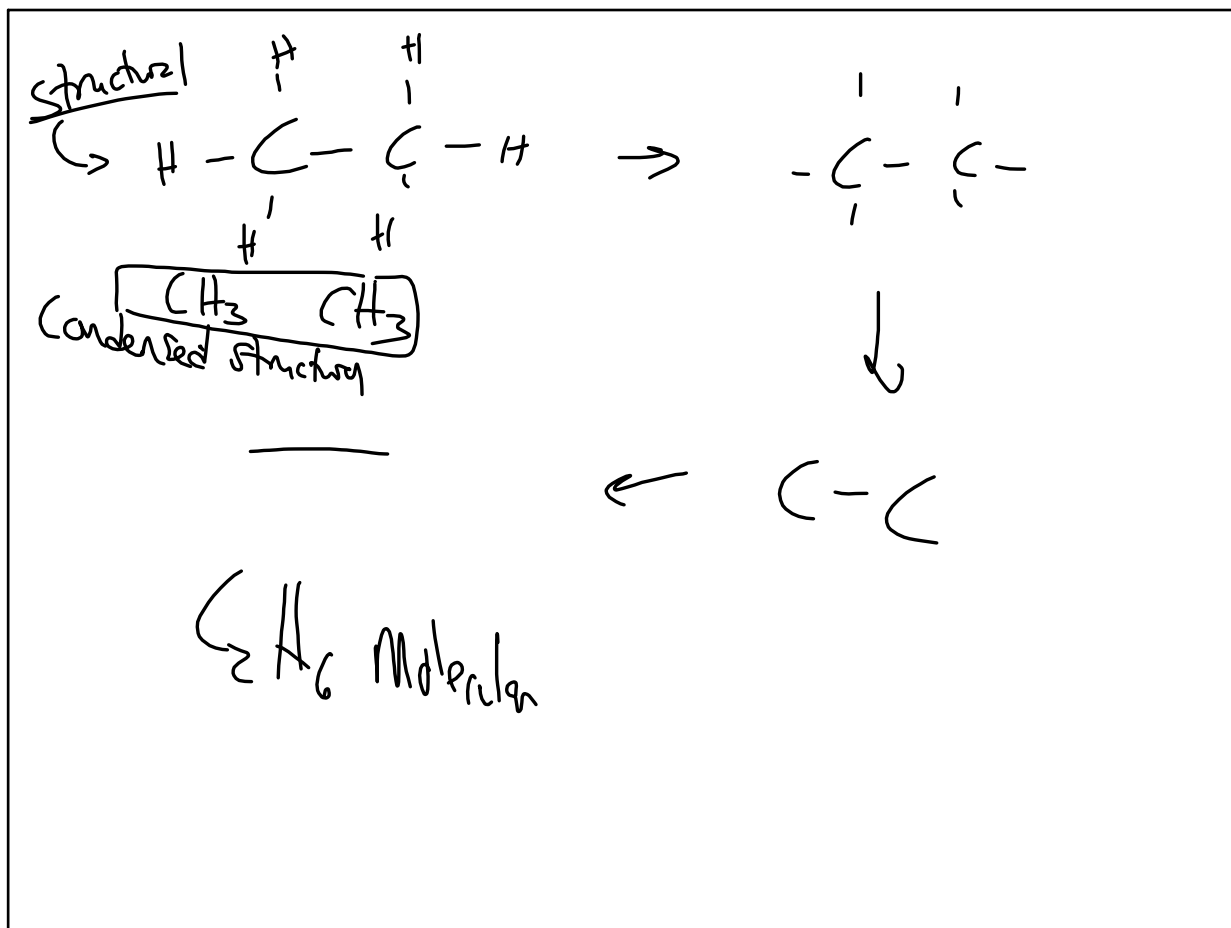
① # carbons	(in main chain)
② Bond type	
	— C _n H _{2n+2} ane
	= C _n H _{2n} ene
	≡ C _n H _{2n-2} yne

$\begin{array}{c} | \\ -C- \\ | \end{array} -OH$
 Alcohol

Apr 16-9:07 AM



Apr 16-9:10 AM



Apr 16-9:13 AM

Regents Packet

P 1, 2, 3

Apr 16-9:16 AM