Homework Assignment #3
Acid/Base Chemistry

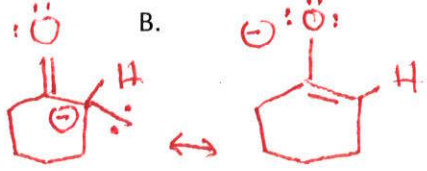
Organic Chemistry 1
due Wednesday Sept 20, 2017

Name Answers

/30

1. Practice problem 3.34 (Draw the conjugate base) (3 pt)

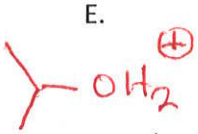
A. 

B. 

F. 

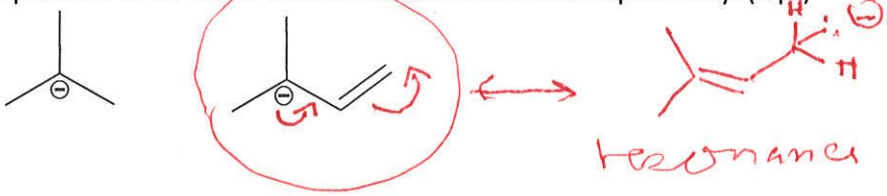
2. Practice problem 3.35 (Draw the conjugate acid) (3 pt)

A. 

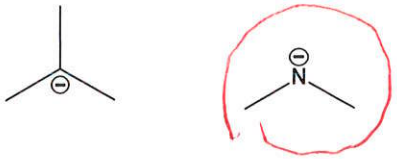
E. 

F. 

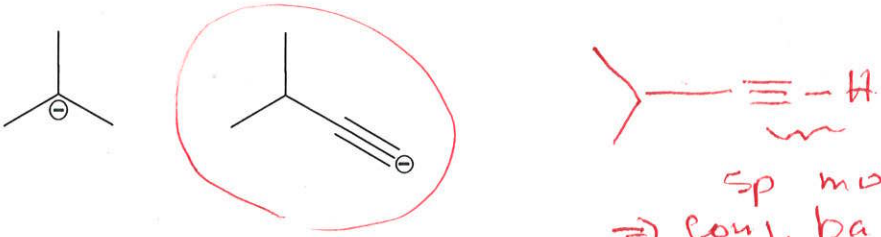
3. Practice problem 3.43. Circle the more stable anion and Explain why. (6 pt)

a) 

resonance stabilized

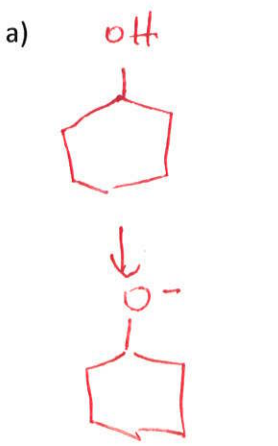
b) 

$\chi_N > \chi_C$

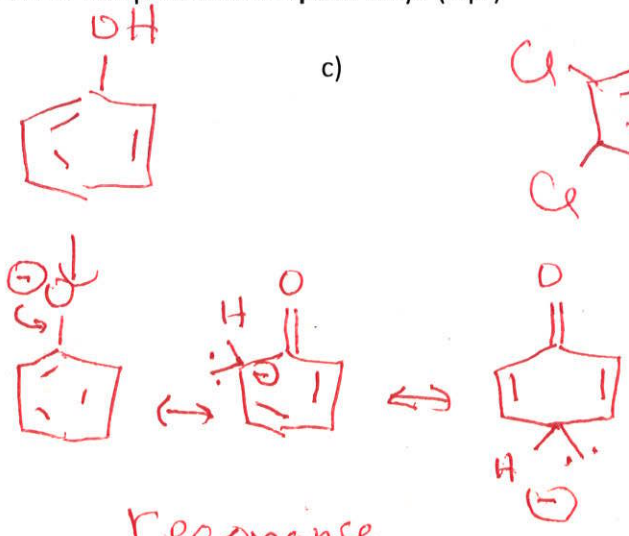
c) 

sp more acidic
⇒ conj. base more stable

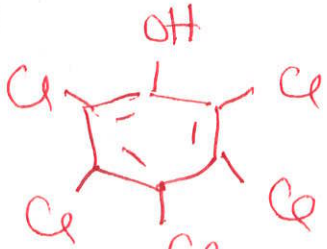
4. Practice problem 3.44. Identify the more acidic compound and **Explain** why. (6 pt)

a) 

$\chi_O > \chi_S$

B) 

resonance stabilized

c) 

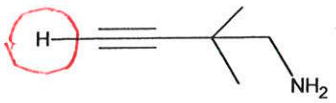
Cl induction w/ Cl

Homework Assignment #3
Acid/Base Chemistry

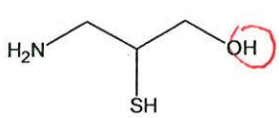
Organic Chemistry 1
due Wednesday Sept 20, 2017

5. Practice problem 3.48. Circle the most acidic **proton** in the compound. (3 pt)

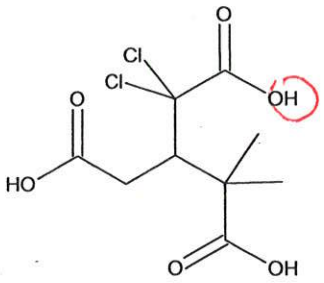
a)



b)

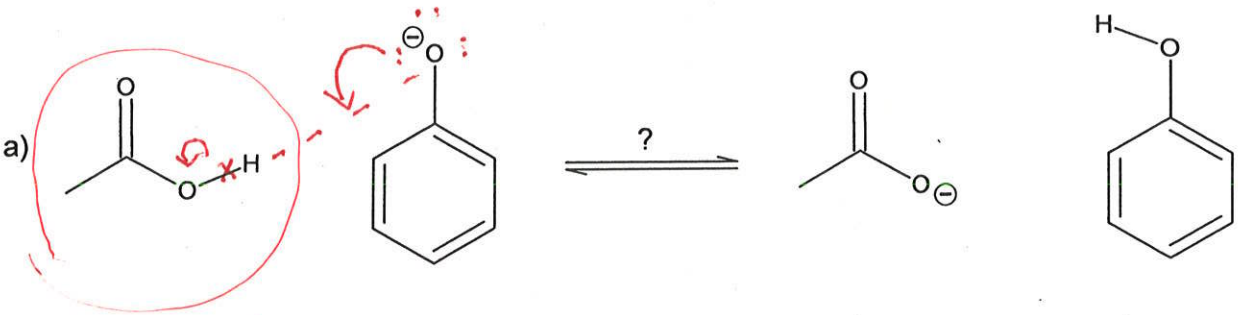


g)



6. For each reaction below, draw a mechanism (curved arrows), circle the stronger acid, and predict which side of the reaction is favored under equilibrium conditions (Left or Right). (6 pt)

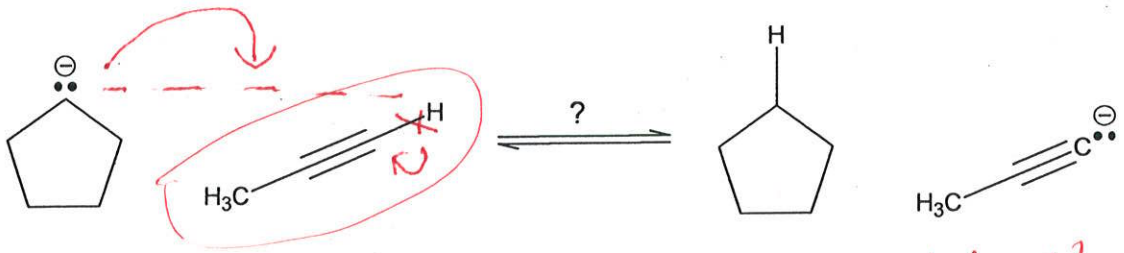
a)



R

conjugate base has resonance hybrid

b)



R

sp orbit makes more acidic H ⇒ more stable conjugate base

7. Show the mechanism for the reaction that takes place when you mix the amide ion (NH_2^{1-}) with the following compound, as well as the product.