

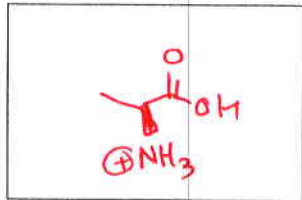
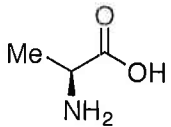
Quiz 5a

Name:

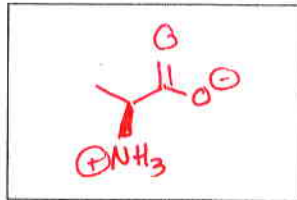
Recitation Instructor:

The following quiz will begin 5 minutes into your recitation and you will have 30 minutes to complete it.
Good Luck!

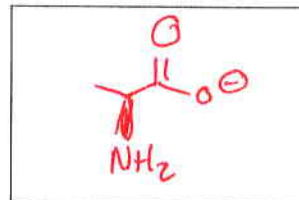
1. Predict the protonation state of the following amino acid pH 2, pH7, and pH12 (8 points)



pH = 2 (acidic)

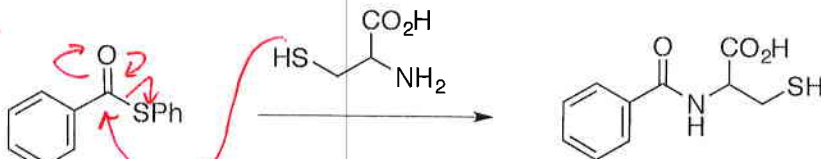


pH = 7 (neutral)

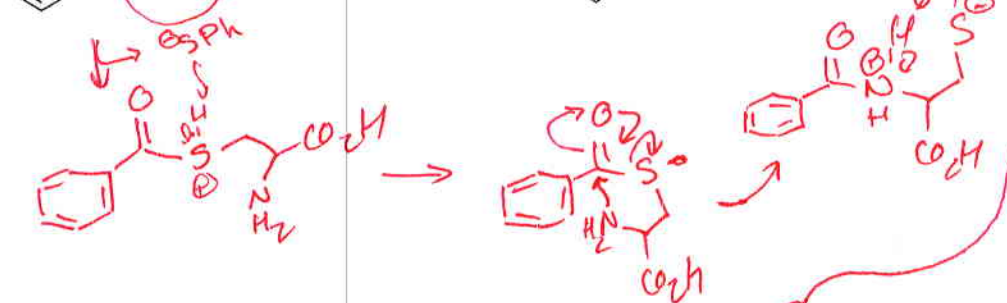


pH = 12 (basic)

2. Show the mechanism of the following transformation (8 points)



could also go in w/ deprotonated -SH



you can also play w/ protonation states @ different intermediates

3. Identify the hydrogen bond donor (put a circle around them) and acceptor (put a square around them) sites for adenine that participate in hydrogen bonding in standard DNA helix (4 points)



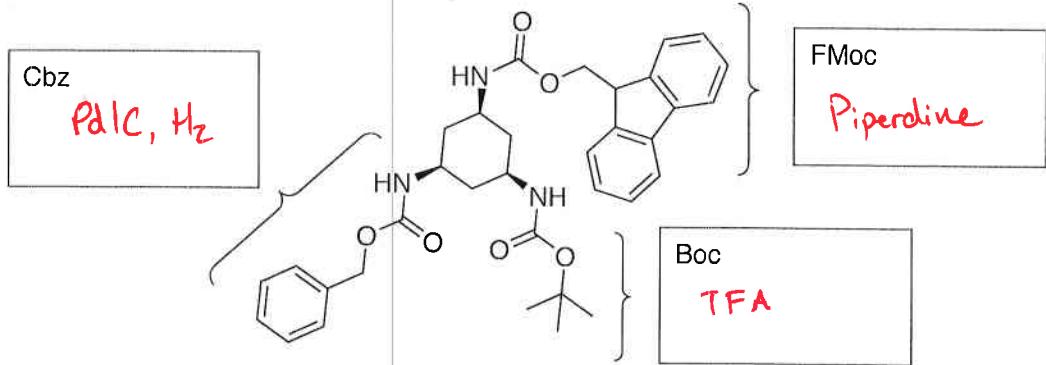
Quiz 5b

Name:

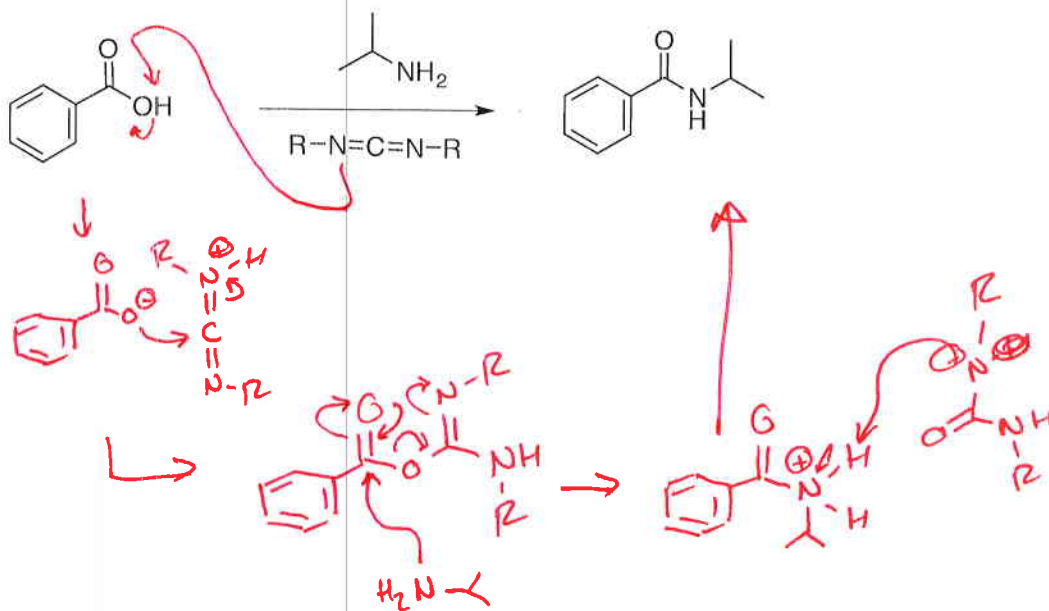
Recitation Instructor:

The following quiz will begin 5 minutes into your recitation and you will have 30 minutes to complete it.
Good Luck!

1. Provide examples of reagents necessary to selectively deprotect the following amines. (8 points)



2. Show the mechanism of the following transformation (8 points)



3. Identify the hydrogen bond donor (put a circle around them) and acceptor (put a square around them) sites for guanine that participate in hydrogen bonding in standard DNA helix (4 points)



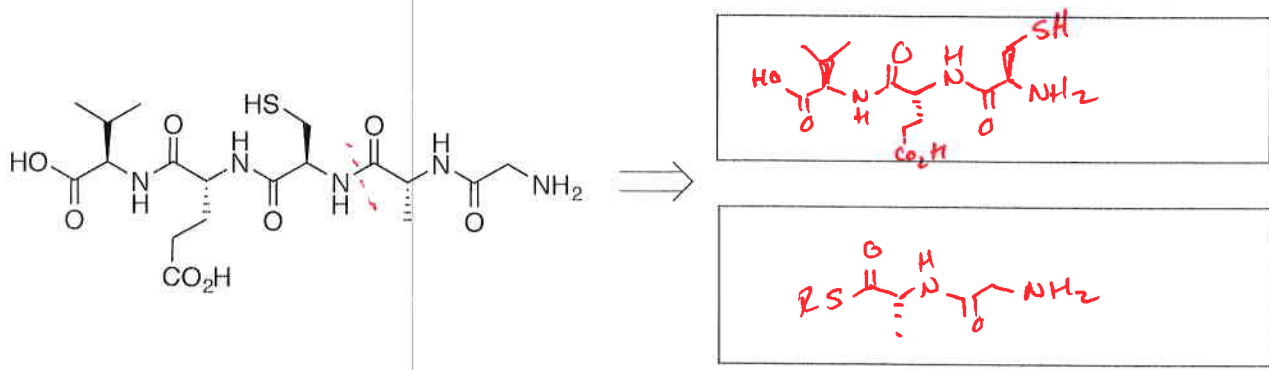
Quiz 5c

Name: *Kay*

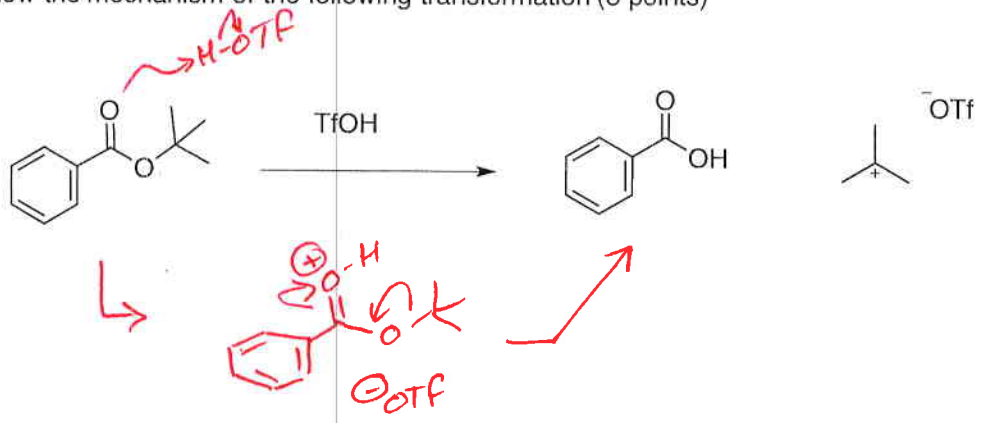
The following quiz will begin 5 minutes into your recitation and you will have 30 minutes to complete it. Good Luck!

Recitation Instructor:

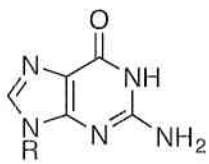
1. Dissect the following pentapeptide into two peptide-based compounds that when combined would make the peptide through native chemical ligation. (6 points)



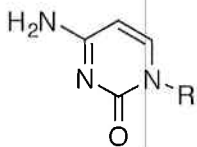
2. Show the mechanism of the following transformation (8 points)



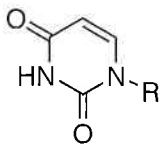
3. Guanine pairs with one of the following base pairs in DNA helices. Which one, and show how the hydrogen bond network makes these two pair. (6 points)



guanine



cytosine



thymine

