

CHEM106 Quiz 3

Please show all equations, all substitutions, all units, and all work to receive any credit

1. Draw the complete Lewis structures for each of the following amino acids in the form that is most abundant at a physiological pH of 7.4. Except for aromatic rings; show all atoms, bonds and full charges (not partial charges) for these compounds:
 - a. Tyrosine
 - b. Cysteine
 - c. Aspartic Acid
 - d. Lysine
 - e. Glycine
 - f. Alanine
 - g. Valine
 - h. Threonine
2. Glycolic acid is an alpha hydroxy acid (AHA) with a pKa of 3.83 and is often used for chemical peels. For an aqueous glycolic acid solution at a pH of 3.0, calculate the relative amounts of ionized and unionized glycolic acid. Draw the complete Lewis structure for each form and identify which is present in a greater concentration.