Name:			

1. Of the 26 letters of the English alphabet, circle the ones that symbolize naturally occurring amino acids regularly incorporated into proteins:

A B C D E F G H I J K L

 $M \quad N \quad O \quad P \quad Q \quad R \quad S \quad T \quad U \quad V \quad W \quad X$

Y Z

2. Circle the letters that represent amino acids with nonpolar sidechains:

M N O P Q R S T U V W X

 \mathbf{Y}

3. Circle the letters that represent amino acids which when converted to their corresponding keto acid by a transaminase are an intermediate of glycolysis or the TCA cycle:

A B C D E F G H I J K L

 $M \quad N \quad O \quad P \quad Q \quad R \quad S \quad T \quad U \quad V \quad W \quad X$

 \mathbf{Y} \mathbf{Z}

- 4. For the above chemical structure:
 - a. Circle the portion of the structure that composes the amino acid.
 - b. Name the amino acid.