***CHEM-115 Quiz 7 (Chapter 11) November 10, 2017***

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which component of an amino acid makes it a “*chiral*” molecule?
2. alpha carbon c) carboxylic acid e) R-group
3. amine d) hydrogen
4. **Circle** the chiral carbon(s) in the molecule shown to the right:
5. The overall charge on acidic amino acids at pH 1 is:

 a) 0 b) +1 c) -1 d) +2 e) -2

1. The peptide bond formed between two amino acids in a polypeptide is a type of \_\_\_\_\_\_ bond.

 a) ester b) amide c) amine d) thioester e) ether

1. Alpha helicies and beta sheets are examples of what kind of protein structure?

 a) primary b) secondary c) tertiary d) quaternary

1. Enyzmes are catalytic proteins, which mean they alter the \_\_\_\_\_\_\_\_\_\_\_\_ of a reaction.
2. enthalpy change (H) c) activation energy (EA) e) b & d
3. rate (or speed) d) a & b f) all of the above
4. The intermolecular force that is most responsible for secondary structure folding in proteins is:

 a) dispersion forcesb) salt bridgesc) disulfide bondsd) hydrogen bonds

1. In the tripeptide shown to the right:
	1. Draw **rectangles** around the peptide bonds
	2. Draw **circles** around the R-groups

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2. hydrogen c) carboxylic acid e) R-group
3. carboxylic acid d) alpha carbon
4. **Circle** the chiral carbon(s) in the molecule shown to the right:
5. The peptide bond formed between two amino acids in a polypeptide is a type of \_\_\_\_\_\_ bond.

 a) amide b) ester c) ether d) thioester e) alcohol

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2. activation energy (EA) c) enthalpy change (H) e) b & d
3. rate (or speed) d) a & b f) all of the above

1. Which of the following types of tertiary interactions involves acidic amino acids?

 a) dispersion forcesb) salt bridgesc) disulfide bondsd) hydrogen bonds

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