

Name: _____

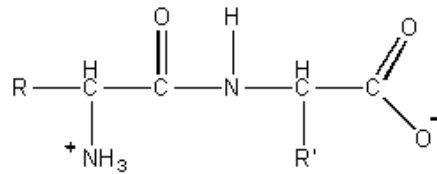
SPT 161: Food Chemistry

Homework 3: Due September 16, 2015

If you are asked to explain your reasoning, your answers should be written in complete sentences.

1. What are the structural characteristics common to all amino acids found in naturally occurring proteins?

2. In the figure below identify the amine, the carboxylic acid, the peptide bond and amino acid



3. Sketch an a-helix and a b-sheet. Show the hydrogen bonds that keep the molecules into the correct shape.

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4. What does protein denaturing mean, and what is happening at the chemistry level?

5. What are the causes of protein denaturation? Give a cooking example of each of the 4 causes.

6. Why is it a bad idea to use pineapple as a fruit in your Jell-O® mold?

7. Given the enzyme activity graph below answer the following questions;

1. With increasing temperature what happens to the activity?
2. As the temperature goes from 300°C to 400°C, what is happening to activity of the enzyme?

