1. The \_\_\_\_\_\_\_\_\_\_\_ structure is the amino acid sequence. \_\_\_\_\_
2. Tertiary
3. Primary
4. Alpha helix
5. Beta sheet
6. The \_\_\_\_\_\_\_\_\_ structure is how proteins are related to one another. \_\_\_\_\_
	1. Quaternary
	2. Protein
	3. Secondary
	4. Antiparallel
7. \_\_\_\_\_\_\_\_ bonds are between strands while \_\_\_\_\_\_\_\_ bonds are within the strand. \_\_\_\_\_
	1. Peptide hydrogen
	2. Hydrogen hydrogen
	3. Disulfide peptide
	4. Hydrogen peptide
8. \_\_\_\_\_\_\_\_ bonds are categorical of the secondary structure of proteins. \_\_\_\_\_
	1. Peptide
	2. Nonpolar
	3. Salt bridge
	4. Hydrogen
9. The \_\_\_\_\_\_\_\_\_\_ structure is defined as the overall protein structure or the spatial \_\_\_\_\_

 arrangement of secondary structures.

* 1. Quaternary
	2. Beta sheet
	3. Tertiary
	4. Peptide backbone
1. Which amino acid sidechain has a positive one charge? \_\_\_\_\_\_
	1. Valine
	2. Glutamic acid
	3. Histidine
	4. Serine
2. The third residue in the following peptide sequence is \_\_\_\_\_\_\_\_ and has \_\_\_\_\_

\_\_\_\_\_\_\_\_\_ peptide bonds. Ala-Trp-Ile-Asp-Tyr-Pro

* 1. Aspartic acid five
	2. Isoleucine four
	3. Aspartic acid four
	4. Isoleucine five
1. Draw a tetrapeptide containing only nonpolar residues. Label the amino terminis, carboxyl terminus, and the peptide bonds.

REVIEW MULTIPLE CHOICE

1. What is the name of the following molecule? \_\_\_\_\_

CH3CH2(CO)NHCH3

* 1. N-propyl methanoic acid
	2. Methyl propyl amide
	3. N-methyl propanamide
	4. Methyl acetamide
1. \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ will react to form N,N-dimethyl butanamide. \_\_\_\_\_
	1. CH3-NH-CH2CH3 and CH3CH2COOH
	2. CH3-NH-CH3 and CH3CH2CH2COOH
	3. NH3 and CH3C(CH3)2CH2COOH
	4. CH3NCH3 and CH3CH2CH2COOH
2. The ammonium cation has what type of charge? \_\_\_\_\_
	1. +2
	2. -2
	3. Neutral
	4. +1
3. What the IUPAC name for the following molecule? \_\_\_\_\_



* 1. N-methyl-hexanamine
	2. Methyl 2-pentanamine
	3. N-methyl-2-pentanamine
	4. Methyl pentyl amine
1. A diacid and a diamine react to form a \_\_\_\_\_\_\_\_\_\_. \_\_\_\_\_
	1. Amino acid
	2. Polyamide
	3. Heterocyclic amine
	4. Quaternary ammonium salt
2. Two examples of polyamides are \_\_\_\_\_
	1. Kevlar and nylon
	2. Kevlar and pumiliotoxins
	3. Quinine and caffeine
	4. Nylon and decongestants
3. **Label each as either being a globular protein or fibrous protein description.**
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ consists of various secondary structures
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ long fibers or strands
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ consists of a single secondary structure
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ functional proteins
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ compact
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ few residues that repeat
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ most or all 20 residues
11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ structural proteins
12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ insoluble in water
13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be water soluble
14. **Answer the Following Questions.**
15. What are two examples of fibrous proteins? Describe them.
16. Describe the process of getting your hair chemically straightened or curled.
17. Name the globular protein responsible for oxygen transport protein in muscles.
18. What is the name of the protein coat that surrounds a virus (DNA or RNA core)? What is this made of?
19. **\_\_\_\_\_\_\_\_\_\_\_\_\_**  is the disruption of some part of the secondary, tertiary, or quaternary structure.
20. **Since ions and polar compounds cannot pass through the lipid bilayer, trasnsmembrane channels are required for transport across cell membranes. Match each type of transport with its description.**
21. Diffusion (passive transport)
22. Facilitated transport
23. Active transport
24. Uses protein channels to increase the rate of diffusion
25. Moves particles from a higher to lower concentration
26. Moves ions against a concentration gradient