

TxCETP Course Component: Protein Folding and Shape

This material is based on work supported by the National Science Foundation under Grant No. DUE 9987332.

IV. Appendix of Resources

- A. Protein models or transparencies that might include: actin, ATPase, catalase, cytochromes, DNA polymerase, hemoglobin, insulin, microtubules, myosin, ribosomes, Pepco, RNA polymerase, Rubisco, or others that are provided by your textbook package.
- B. Pre- and Post-Test
- C. Article from the *New York Times*.

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Test

1. What is the primary type of chemical bonding that allows for the helical and plaited sheet structures found in proteins?
 - A) covalent.
 - B) disulfide bonds.
 - C) ionic bonds.
 - D) hydrogen bonds.
 - E) none of the above are correct.
2. The level of protein folding which involves combining different subunits is
 - A) primary.
 - B) secondary.
 - C) tertiary.
 - D) quaternary.
 - E) none of the above are correct.
3. **Choose all that apply.** The pieces of tape on the pipe cleaners used in the model of protein folding represented
 - A) sulfhydryl groups.
 - B) hydrogen bonding R-groups.
 - C) non-hydrogen bonding R-groups.
 - D) amino acids.
 - E) covalent bonds.
4. Which of the following proteins are functional at the tertiary level?
 - A) catalase.
 - B) hemoglobin.
 - C) insulin.
 - D) ribosome.
 - E) no proteins are functional at the tertiary level.
5. When enzymes fold and form particular shapes with regions that fit substrates, these regions are called
 - A) A-sites.
 - B) P-sites.
 - C) allosteric sites.
 - D) active sites.
 - E) none of the above are correct.