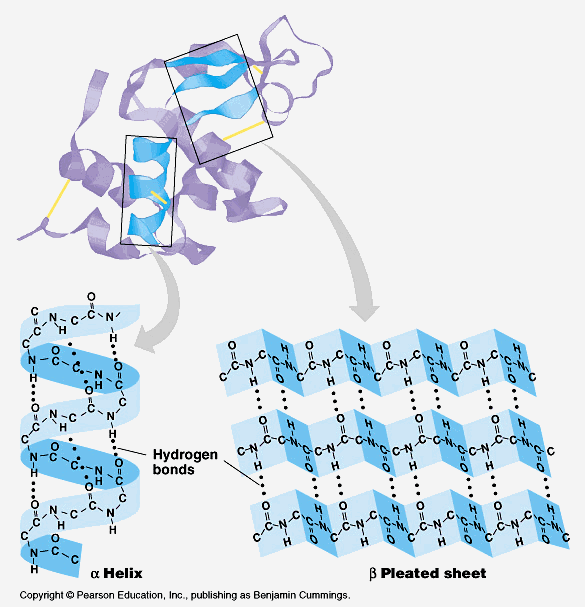
Protein Folding Quiz C. Kohn, Waterford WI

Name: Hour Date: Score:

1. Which of the following amino acids forms a special bond called a disulfide bond, a bond which causes it to bind to other amino acids that are the same kind as itself?
   1. Glutamine b. Tyrosine c. Serine d. Cysteine
2. The shape of a protein determines its…
   1. Amino acid sequence b. Function c. Lifespan d. Location
3. Hydrophilic amino acids will always move to the of a protein
   1. Inside b. Outside c. Top d. Bottom
4. Hydrophobic amino acids will always move to the of a protein
   1. Inside b. Outside c. Top d. Bottom
5. Oppositely charged amino acids will always…
   1. Bond with each other
   2. Repel each other
   3. Move to the inside
   4. Move to the bottom
6. Similarly charged amino acids will always…
   1. Bond with each other
   2. Repel each other
   3. Move to the inside
   4. Move to the bottom
7. The primary structure of an amino acid refers to…
   1. The overall structure of the protein
   2. The combination of alpha helixes and beta sheets
   3. The order of amino acids
   4. The formation of an alpha helix or a beta sheet
8. The tertiary structure of an amino acid refers to…
   1. The overall structure of the protein
   2. The combination of alpha helixes and beta sheets
   3. The order of amino acids
   4. The formation of an alpha helix or a beta sheet
9. A frameshift mutation is one that…
   1. Causes a deletion
   2. Causes an insertion
   3. Causes all of the bases downstream to shift
   4. Causes no change to the protein structure
10. A frameshift mutation will change the of a protein
    1. Shape b. Function c. Secondary and Tertiary structure d. All of the above
11. Which of the following is shown in X to the right?
    1. Alpha Helix b. Beta Sheet c. Amino Acid d. Polypeptide
12. Which of the following is shown in Y to the right?
    1. Alpha Helix b. Beta Sheet c. Amino Acid d. Polypeptide
13. X and Y together would make which of the following?
    1. Alpha Helix b. Beta Sheet c. Amino Acid d. Polypeptide
14. Which of the following would be the correct transcribed mRNA molecule for the DNA sequence below?  
      
    . 3’ TAC-TTA-CGA-TGG-TAC-ACG-TGT-ACC-TTG-AAC-CTG-ACT 5’  
    1. 5’ – ATG-AAT-GCT-ACC-ATG-TGC-ACA-TGG-AAC-TTG-GAC-TGA- 3’
    2. 5’ – AUG-AAU-GCU-ACC-AUG-UGC-ACA-UGG-AAC-UUG-GAC-UGA- 3’
    3. 3’ – ATG-AAT-GCT-ACC-ATG-TGC-ACA-TGG-AAC-TTG-GAC-TGA- 5’
    4. 3’ – AUG-AAU-GCU-ACC-AUG-UGC-ACA-UGG-AAC-UUG-GAC-UGA- 5’
15. Which of the following would be the correct order of translated amino acids from the mRNA strand above?
    1. Met – Asn – Ala – Thr – Met – Cys – Thr – Trp – Asn – Leu – Asp
    2. Ser – Gln – Val – Gln – Gly – Thr – Arg – Val – Pro – Ser- Term
    3. Asn – Ala – Thr – Met – Trp – Pro – Arg – Val – Met – Asp – Trp
    4. Ile – Phe – Ser – Cys – His – Arg – Val – Ala – Asp – Glu – Leu - Term

