1. Which term includes Choose all others in the list?
   1. Monosaccharide
   2. Disaccharide
   3. Starch
   4. Carbohydrate
   5. Polysaccharide
2. The molecular formula for glucose is C6H12O6. What would be the molecular formula for a polymer made by linking ten glucose molecules together by dehydration reactions?
   1. C60H120O60
   2. C6H12O6
   3. C60H102O51
   4. C60H100O50
   5. C60H111O51
3. The enzyme amylase can break glycosidic linkages between glucose monomers only if the monomers are the alpha form. Which of the following could amylase break down? (Choose all that apply).
   1. Cellulose
   2. Chitin
   3. Glycogen
   4. Starch
   5. Amylopectin
4. Choose the pair of terms that correctly completes this sentence: nucleotides are to \_\_\_\_\_\_ as \_\_\_\_\_\_ are to proteins.
   1. Nucleic acids; amino acids
   2. Amino acids; polypeptides
   3. Glycosidic linkages; polypeptide linkages
   4. Genes; enzymes
   5. Polymers; polypeptides
5. Which of the following statements concerning *unsaturated* fats is true?
   1. They are more common in animals than in plants
   2. They have double bonds in the carbon chains of their fatty acids
   3. They generally solidify at room temperature
   4. They contain more hydrogen than saturated fats having the same number of carbon atoms
   5. They have fewer fatty acid molecules per fat molecule
6. The structural level of a protein least affected by a disruption in hydrogen bonding is the
   1. Primary level
   2. Secondary level
   3. Tertiary level
   4. Quaternary level
   5. All structural levels are equally affected
7. Which of the following pairs of base sequences could form a short stretch of a normal double helix of DNA?
   1. 5’-purine-pyrimidine-purine-pyrimidine-3’ with 3’-purine-pyrimidine-purine-pyrimidine-5’
   2. 5’-A-G-C-T-3’ with 5’-T-C-G-A-3’
   3. 5’-G-C-G-C-3’ with 5’-T-A-T-A-3’
   4. 5’-A-T-G-C-3’ with 5’-G-C-A-T-3’
   5. a, b, and d are all correct
8. Enzymes that break down DNA catalyze the hydrolysis of the covalent bonds that join nucleotides together. What would happen to DNA molecules treated with these enzymes?
   1. The two strands of the double helix would separate
   2. The phosphodiester bonds between Deoxyribose sugars would be broken
   3. The purines would be separated from the Deoxyribose sugars
   4. The Pyrimidines would be separated from the Deoxyribose
   5. All bases would be separated from the Deoxyribose sugars
9. Which of the following is *not* a protein?
   1. Hemoglobin
   2. Cholesterol
   3. Antibody
   4. An enzyme
   5. Insulin
10. Which of the following statements about the 5’ end of a polynucleotide strand is correct?
    1. The 5’ end has a hydroxyl group
    2. The 5’ end has a phosphate group
    3. The 5’ end is identical to the 3’ end
    4. The 5’ end is Antiparallel to the 3’ end
    5. The 5’ end is the fifth position on one of the nitrogenous bases