**Quest & Test 7 - Molecular Biology – Bio Technology – Health Assessment Study Guide**

1. Vocabulary: Identify the definitions of the following vocabulary words below.

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| 1. Cell respiration 6. Biotechnology  2. Protein synthesis 7. Cell Wall  3. Glucose 8. Chlorophyll  4. Biotechnology 9. Cytoplasm  5. DNA |

1. Short answers.
2. What is the difference between mitosis and meiosis?
3. Write the chemical reaction for cellular respiration and identify two reactants that are needed for cellular respiration to occur?
4. Write the chemical reaction for cellular respiration and identify three products of cellular respiration?
5. How do plants manufacture their own nutrients (glucose)?
6. Identify the cell functions of the following organelles:
   1. Cell membrane
   2. Nucleus
   3. Mitochondria
   4. Ribosomes
   5. Chloroplasts
7. What is ATP and how is it used inside of a cell?
8. Identify 4 types of macronutrients and describe the importance of each.
9. Which gas is responsible for cellular respiration?
10. What is the molecular formula of glucose?
11. Which two organelles do plants and animals **NOT** have in common?
12. How can smoking have a negative effect on the human body?
13. How can drinking have a negative effect on the human body?
14. Identify the chemical equation for photosynthesis.
15. What is most of the energy used for during cellular respiration?
16. What is biotechnology and provide at least two examples. The more you identify the better.
17. Lipids, triglycerides, and adipose are all forms of which macromolecule?