Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Biology Test – Module #7

Matching: Match each term with the correct definition.

|  |  |
| --- | --- |
| 1. \_\_\_\_ genetics | 1. Specialized proteins that aid in destroying infectious agents |
| 1. \_\_\_\_ gene | 1. The process by which a diploid (2n) cell forms gametes (n) |
| 1. \_\_\_\_ chromosome | 1. Haploid cells (n) produced by diploid cells (2n) for the purpose of sexual reproduction |
| 1. \_\_\_\_ centromere | 1. The science that studies how characteristics get passed from parent to offspring |
| 1. \_\_\_\_ mother cell | 1. A process of asexual reproduction in eukaryotic cells |
| 1. \_\_\_\_ diploid cell | 1. A cell with chromosomes that come in homologous pairs |
| 1. \_\_\_\_ haploid cell | 1. A cell that has only one representative of each chromosome pair |
| 1. \_\_\_\_ gametes | 1. A weakened or inactive version of a pathogen that stimulates the body’s production of antibodies which can aid in destroying the pathogen |
| 1. \_\_\_\_ virus | 1. The region that joins two sister chromatids |
| 1. \_\_\_\_ antibodies | 1. A non-cellular infectious agent that has two characteristics: 1. It has a genetic material inside a protective protein coat. 2. It cannot reproduce on its own. |
| 1. \_\_\_\_ vaccines | 1. DNA coiled around and supported by proteins, found in the nucleus of the cell |
| 1. \_\_\_\_ mitosis | 1. A cell ready to begin reproduction, containing duplicated DNA and centrioles |
| 1. \_\_\_\_ meiosis | 1. A section of DNA that codes for the production of a protein or a portion of protein, thereby causing a trait |

True or false: Determine whether each statement is true or false.

1. \_\_\_\_ Identical twins who have the exact same genetics, grow up in different parts of the world. They will be identical in every way.
2. \_\_\_\_ A cellular reproduction process results in four diploid cells. This is mitosis.
3. \_\_\_\_ If you decide to refuse vaccination, you will be protected from getting most diseases.
4. \_\_\_\_ Different cells divide at different rates/speeds.
5. \_\_\_\_ Mitosis is divided into 8 different stages.
6. \_\_\_\_ Viruses have some, but not all of the characteristics of life.
7. \_\_\_\_ Genes come in pairs

Multiple choice: Choose the best answer for each problem.

1. \_\_\_\_ An RNA strand has the following sequence of nucleotides: uracil, adenine, adenine, guanine, cytosine, cytosine. What was the nucleotide sequence in the DNA that it transcribed?
   1. Adenine, adenine, thymine, cytosine, guanine, guanine
   2. Adenine, thymine, thymine, adenine, guanine, guanine
   3. Adenine, thymine, thymine, cytosine, guanine, guanine
   4. Adenine, thymine, thymine, cytosine, cytosine, guanine
2. \_\_\_\_ In order to reproduce, a virus cell needs …
   1. Food
   2. Energy
   3. Sun
   4. A host
3. \_\_\_\_ Which of the following is NOT a way to protect you from viruses?
   1. Vaccines
   2. Anti-disease medication
   3. Antibiotics
   4. Antivirals
4. \_\_\_\_ Which of the following do NOT help determine traits.
   1. Climate factors
   2. Spiritual factors
   3. Environmental factors
   4. Genetic factors
5. \_\_\_\_ When we look at a living thing, we mostly see…
   1. Enzymes
   2. Nucleotides
   3. Proteins
   4. Lipids

Extra Credit (worth 5 points): What does DNA stand for? (spelling must be correct ☺)

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