

TEST NAME: **Biology Test Week 4**
TEST ID: **1923167**
GRADE: **09 - Ninth Grade**
SUBJECT: **Life and Physical Sciences**
TEST CATEGORY: **School Assessment**

Student: _____
Class: _____
Date: _____

1. Use the information in the table to answer the question that follows.

Scientific Classification

Kingdom	Animalia
Phylum	Chordata
Class	Reptilia
Order	Testudines
Family	Emydidae
Genus	Terrapin
Species	Carolina

What is the correct scientific name for the organism classified above?

- A. Reptilia testudines
 - B. Chordata reptilia
 - C. Emydidae terrapin
 - D. Terrapin carolina
2. Which set contains only kingdoms that include autotrophs?
- A. Protista, Animalia, Plantae
 - B. Protista, Plantae, Bacteria
 - C. Plantae, Fungi, Archaea
 - D. Plantae, Bacteria, Fungi
3. Which domain includes all multicellular plants and animals?
- A. Archaea
 - B. Eukarya
 - C. Eubacteria
 - D. Protista

4. The table compares a few plant and animal characteristics.

Plant and Animal Characteristics

Characteristic	Plant	Animal
Nutrition	Autotrophic	Heterotrophic
Respiration	Aerobic	Aerobic
Reproduction	Sexual and Asexual	Sexual and Asexual
Circulation	Vascular System	Circulatory System

Which characteristic separates plants from animals?

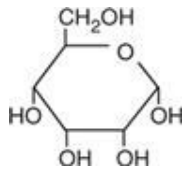
- A. the reaction that uses oxygen to generate an organism's ATP
 - B. the fusion of gametes that generate a diploid organism
 - C. the processes used to obtain energy for growth
 - D. the presence of nuclei in cells
5. Why did scientists assign organisms a two-part scientific name?
- A. It allowed them to communicate in a universal language.
 - B. They wanted to cause confusion in other parts of the world.
 - C. The animals' common names were the same in all parts of the world.
 - D. It provided a way to prevent outsiders from understanding their work.
6. Which statements explain the primary difference between the structure of a nucleic acid and the structure of a protein?
- A. A nucleic acid has alternating base pairs. A protein has alternating peptides.
 - B. Nitrogen bases form the backbone of a nucleic acid. Peptides form the backbone of a protein.
 - C. Nucleotides link together to form a nucleic acid. Amino acids link together to form a protein.
 - D. A nucleic acid is held together by the sugar-phosphate complex. A protein is held together by the carbon-carbon bonds.
7. What do bacterial cells, plant cells, and animal cells have in common?
- A. They all contain the same cell wall structure.
 - B. They all have a membrane surrounding their nucleic acid.
 - C. They all have a similar code for the production of amino acids.
 - D. They all carry out the light dependent reactions in organelles.

8. Which of these groups of nitrogenous bases are found in strands of RNA?

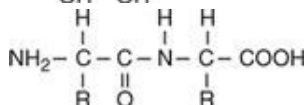
- A. A, T, C, G
- B. A, T, C, U
- C. A, C, G, U
- D. T, C, G, U

9. Proteins function to provide structure for tissues and organs. Which of the following are the building blocks of proteins?

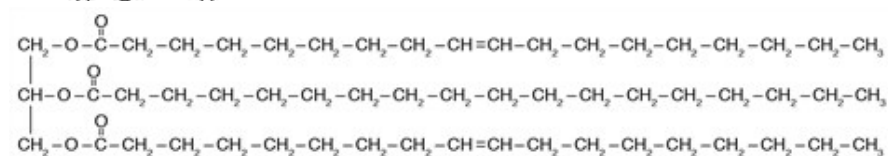
A.



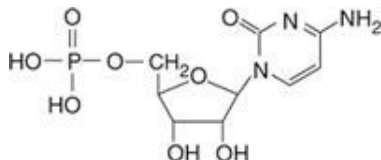
B.



C.



D.



10. Which organic molecule would a long-distance runner **most likely** choose to eat before a race?

- A. A protein, because it builds muscle mass.
- B. A carbohydrate, because it gives quick energy.
- C. A carbohydrate, because it stores and releases energy.
- D. A protein, because it transports oxygen in the blood stream.

11. According to cell classification, prokaryotic cells are separated from eukaryotic cells. Which feature is often used to distinguish prokaryotic cells from eukaryotic cells?

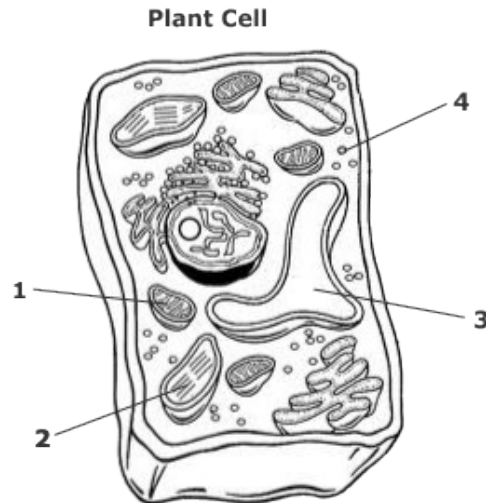
- A. life processes
- B. size differences
- C. plasma membranes
- D. energy molecules

12. Which protects most prokaryotic cells from the surrounding environment and provides structural support?
- A. flagella
 - B. nucleus
 - C. ribosome
 - D. cell membrane
13. The organelle pictured below may increase in number in response to changes within a muscle cell. Which situation would **most likely** result in increased numbers of this organelle?



- A. an increase in energy use by the cell
 - B. a decrease in protein production by the cell
 - C. a decrease in active transport of ions out of the cell
 - D. an increase in passive transport of molecules into the cell
14. **Where are proteins synthesized?**
- A. mitochondria
 - B. ribosomes
 - C. centrioles
 - D. lysosomes

15. Which will **most likely** occur when a few of the mitochondria within a cell are slightly damaged?
- A. The mitochondria will produce less adenosine diphosphate (ADP).
 - B. The mitochondria will produce less adenosine triphosphate (ATP).
 - C. The mitochondria will produce more adenosine diphosphate (ADP).
 - D. The mitochondria will produce more adenosine triphosphate (ATP).
16. This is a diagram of a plant cell.



Which describes structure 3?

- A. It serves as the site for protein synthesis.
 - B. It contains genetic information.
 - C. It transforms the sun's energy.
 - D. It stores water and nutrients.
17. **Proteins that are synthesized in ribosomal subunits undergo extensive post-translational modification and are packaged and directed to the appropriate destination. Which structural component of a cell is involved in such modification?**
- A. endoplasmic reticulum
 - B. lysosomes
 - C. mitochondria
 - D. Golgi apparatus

18. What is a major difference between prokaryotic and eukaryotic cells?
- A. Eukaryotic cells only have a flagellum.
 - B. Prokaryotic cells do not have a cell membrane.
 - C. Eukaryotic cells do not have membrane-bound structures.
 - D. Prokaryotic cells do not have membrane-bound structures.
19. Which cell part is usually the largest and **most** easily seen while observing cells under the microscope?
- A. chloroplast
 - B. mitochondria
 - C. nucleus
 - D. vacuole
20. **Cell membranes allow some molecules to move freely across the membrane, while other molecules are restricted. Which term BEST describes this capability of a cell membrane?**
- A. semipermeable
 - B. impervious
 - C. resilient
 - D. unyielding