Name: _____ Date: _____

Quiz: Life in the Earth System

Read each question. Circle the letter of the correct answer.

1. Which statement is true of the many parts of the biosphere?

A. Each part includes salt water.

B. Each part is completely unique.

C. Each part is isolated from the others.

D. Each part is connected to all the others.

2. On a construction site, a worker moves some debris and a bulldozer moves a different pile of debris. Which of these best explains how the worker and the bulldozer are alike?

A. Their physical properties are similar.

B. They are both systems that are performing similar functions.

C. They both use the same kind of fuel to provide them with energy.

D. They have control centers that made from the same components.

3. An organized group of related parts that interact to form a whole is a(n) _____.

A. theory

B. system

C. adaptation

D. arrangement

4. Which of these best explains the organization of the biosphere?

A. Groups of biomes make up a community, and groups of communities make up an ecosystem.

B. Groups of communities make up a population, and groups of populations make up a biome.

C. Groups of individuals make up populations, and groups of populations make up communities.

D. Groups of populations make up an ecosystem, and groups of ecosystems make up a community.

5. Which of these is an example of a connection between Earth systems?

A. ice melting on a lake

B. deer drinking from a stream

C. a robin hatching from an egg

D. minerals forming under Earth's surface

6. Which of these lists abiotic components of an ecosystem?

A. river, grass, soil

B. rocks, insects, trees

C. minerals, water, air

D. sand, saltwater, seabirds

7. The geosphere is one of four interconnected systems and includes _____.

A. all nonliving parts of Earth

B. every living thing on Earth

C. continents, rocks, and sea floor only

D. the features on and below Earth's surface

8. Which of these is not a characteristic of all living things?

A. They require an energy source.

B. They are made up of more than one cell.

C. They maintain stable internal conditions.

D. They respond to changes in the environment.

9. The atmosphere and the hydrosphere work together _____.

A. to maintain a consistent temperature for life on Earth

B. to provide homes for most organisms living on Earth

C. to keep ice caps from melting and sea levels from rising on Earth

D. to allow the water cycle to constantly provide fresh water for Earth.

10. An engineer is designing a driverless car, in which a computer will control the car and make all of the driving decisions. Both the computer and a normal human driver are systems. Which of these explains a difference between the systems?

A. The computer is a complex system, but the human driver is a simple system.

B. The computer uses electricity as an energy source, while the human driver uses chemical energy.

C. The computer processes information and uses it to make decisions, while the human driver does not.

D. The computer responds to both internal and external stimuli, but the human driver responds only to external stimuli.

Read each statement. Write your answer on the lines.

11. Describe a difference between complex systems and simple systems.

12. Explain how matter may move from the hydrosphere into the biosphere.

13. A team of engineers is designing a new ship. The engineers first build several models of the ship. Explain why the models could help the engineers.

14. Humans are part of complex ecosystems. What are some of the abiotic and biotic factors of the ecosystem in which humans live?

Identify three abiotic factors and their roles in the ecosystem.

Identify three biotic factors and their roles in the ecosystem.

15. Think about homeostasis.

Describe homeostasis what homeostasis is.

Explain why it is important to living organisms.