Environmental Science: Biomes Test

1. Eland are large herbivores with loose skin under the throat and neck. This patch of skin aids in lowering the body temperature when temperatures are high. Eland are able to run at speeds over 40 miles per hour. They run long distances in their open environment. Eland live in large herds. In which of the following biomes would the adaptations of the eland have the greatest survival benefit?

A. The taiga, due to its plentiful vegetation for herbivores
B. The grassland, because of its warm open fields for grazing
C. The tundra, because of its treeless open spaces for running long distances
D. The desert, due to its high temperatures and empty plains for running fast

2. Which adaptive feature is expected to be found in plants native to a tropical rainforest biome?
   A. roots that store large amounts of water
   B. stems that tolerate freezing temperatures
   C. flowers that attract pollinating insects
   D. seeds that sprout only in the presence of fire

3. Purple sage is a plant with tiny hair-covered leaves. The plant is generally less than 4 meters tall, but the roots of the plant can reach lengths greater than 25 meters. Purple sage would not be expected to be native to which biome?
   A. desert
   B. rainforest
   C. grassland
   D. tundra

4. Which nesting behavior is expected in birds that are very plentiful in the grasslands?
   A. nesting on the ground
   B. nesting at the edges of lakes
   C. nesting in trees near water
   D. nesting in holes in dead trees

5. Which two biomes have the least amount of precipitation?
   A. Taiga and temperate forest
   B. Tropical rainforest and desert
   C. Grasslands and taiga
   D. Desert and tundra

6. Which biome is characterized by seasonal drought, occasional fires, and grazing by large mammals, all of which prevent woody shrubs and trees from invading and becoming established. The soils tend to be thick and nutrient-rich, and the roots of perennial plants are often very deep.
   A. Tundra
   B. Desert
   C. Grassland
   D. Tropical Rainforest
7. Snowshoe hares have large rear feet and toes that spread out to help them move on top of thick snow. Their feet also have fur on the bottom, which protects them from cold and gives them traction to move quickly. In the summer, the snowshoe hare's fur is a light coat of rusty, grayish brown but its fur grows thick and pure white in the winter. These adaptations help it hide from predators like the lynx.

In which of the following biomes would the adaptations of the snowshoe hare have the greatest survival benefit?

A. The desert, due to its high temperatures and empty plains for running fast  
B. The taiga, because of its cold, snowy winters and variety of wildlife  
C. The tropical rainforest, due to its high biodiversity and heavy rainfall  
D. The tundra, because of its frozen subsoil and limited animal populations

8. Which biome has low-growing plants with shallow leaves because of a layer of subsoil that almost always remains frozen.
   A. Taiga  
   B. Tundra  
   C. Desert  
   D. Grassland

9. Which biome is characterized by moderate rainfall, fields of grasses, and few trees?
   A. Grassland  
   B. Temperate forest  
   C. Desert  
   D. Taiga

10. Which of the following is NOT an abiotic factor in a biome?
    A. kinds of birds  
    B. sunlight  
    C. amount of rainfall  
    D. soil

11. The state of Mississippi has fertile soil rich in humus with mostly deciduous trees that shed their broad leaves in the winter as colder temperatures cause plant growth to slow. The average rainfall in the state is 145 centimeters each year. There is enough precipitation to support an abundance of plant life. In which biome is Mississippi as well as most of the eastern United States?
    A. Taiga  
    B. Temperate forest  
    C. Tropical rainforest  
    D. Desert

12. Most of the nutrients in a tropical rain forest are found in plants, so
    A. the rain forest soil is very rich.  
    B. there are few plants in the rain forest.  
    C. there are few animals in the rain forest.  
    D. the rain forest soil is poor in nutrients.

13. Which biome has a variety of weather?
    A. Tropical Rainforest  
    B. Taiga  
    C. Temperate Forest  
    D. Desert

14. This biome is characterized by stands that typically consist of only one or a few species of evergreen trees, often so dense that little undergrowth is present. Heavy snowfall may accumulate several meters each winter, releasing a great deal of water in spring. Biome present in much of Canada, Siberia, etc. 
    A. Taiga (Coniferous Forest)  
    B. Deciduous Forest
15. Temperate deciduous forests have all of the following EXCEPT _________.
   A. poor soil for plants
   B. four seasons
   C. trees that lose leaves in autumn
   D. precipitation throughout the year

16. What is permafrost?
   A. An area of soil frozen only during winter
   B. An area where polar bears live.
   C. Thick layer of ice just below the soil surface
   D. Special treat from Dairy Queen

17. Which biome is most likely represented in the climatogram below?

![Climatogram]

A. Desert    B. Grassland    C. Tropical rainforest    D. Tundra

Match the location and wildlife with the correct biomes. Biomes may be used more than once or may not be used at all.

A. Taiga
B. Temperate Forest
C. Desert
D. Grassland
E. Tropical Rain Forest
AB. Tundra

18. Located in the eastern U.S. & Europe
19. Has an average of 100 in/yr of rainfall
20. Located just south of the tundra biome; Cone-bearing evergreen trees, elk
22. Located near the equator, including in South America
23. Animals include cactus, scorpions, kangaroo rats
25. Contains the greatest number of grazing animals on Earth
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   B. precipitation throughout the year
   C. Very little light that reaches the forest floor
   D. four seasons

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![Climatogram](image.png)

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