Biosphere Practice Test

Name: _____ **Date:** _____

*Test on Thursday, May 7th *Study HW #4, HW #5, article questions on Causes of Declining Biodiversity, Biome Map & Tables, Planet Earth - Seasonal Forests movie guide *Turn in this completed practice test to receive extra credit on your Biosphere Test

1. We get energy from the food we eat. The energy in the food first comes from the

   A. soil.

   B. fertilizers used by farmers.

   C. sun.

   D. vitamins added by food manufacturers.

2. How does too much fishing in an area affect its ecosystem?

   A. The fish will lay many more eggs to replace the fish that were caught.

   B. Organisms that eat the fish could become endangered due to starvation.

   C. Organisms that the fish eat will become endangered.

   D. People could eat too many fish and become ill.

3. In a large forest with many animals, there are only a small number of bears. Which of these most likely limits the population of bears in the forest?

   A. supply of food

   B. type of tree

   C. predation by carnivores

   D. amount of suitable shelter

4. The population of which of the following organisms would *most likely* decline if small animals like rats, rabbits, and snakes were eliminated from an ecosystem?

   A. earthworms B. grasses

   C. hawks D. mushrooms

5. An ocean, a forest, and a grassy meadow are each examples of a complete ecosystem. Complete ecosystems contain only

   A. animals.

   B. rocks and water.

   C. living and nonliving things.

   D. populations of plants and animals.

6. The size of a bird population increased by two percent in one year. Which of the following could have contributed to the population increase?

   A. a decrease in the death rate of baby birds

   B. an increase in the number of the birds' predators

   C. an increase in the average number of parasites per bird

   D. a decrease in the immigration of birds of the same species

7. Members of the same species found in an ecosystem are called a—

   A. family. B. population.

   C. niche. D. community.

8. Bison are grazing animals. They travel across a prairie, eating grass. If there were too many bison in an area, there would *probably* be

   A. fewer predators of bison.

   B. many other large grazing animals.

   C. tall shrubs and many trees.

   D. less grass and more bare soil.

9. When trees develop leaves in the spring, changes occur on the forest floor. Why does the development of leaves cause changes on the forest floor?

A. Rainfall increases.

B. Sunlight is reduced.

C. Wind speed increases.

D. Animal migration is stopped.

10. Tropical rain forests have more plant growth than any other type of environment. This may be because rain forests get more rain than other environments. What is another reasonable scientific explanation for rain forests having the most plant growth?

A. Temperatures are warm all year long in the rain forests.

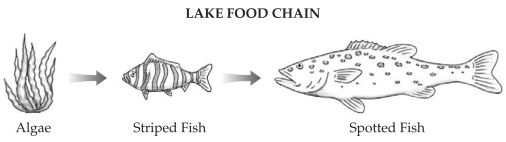
B. People do not cut down trees in the rain forest.

C. The leaves high in the rain forest canopy absorb most of the sunlight.

D. Many birds and insects in the rain forest eat plants.

11. Use the information and food chain below to answer the following question(s).

A summer camp was built near a lake in the mountains. The campers used the lake for swimming, fishing, and boating. The relationships between three organisms found in the lake are shown below.

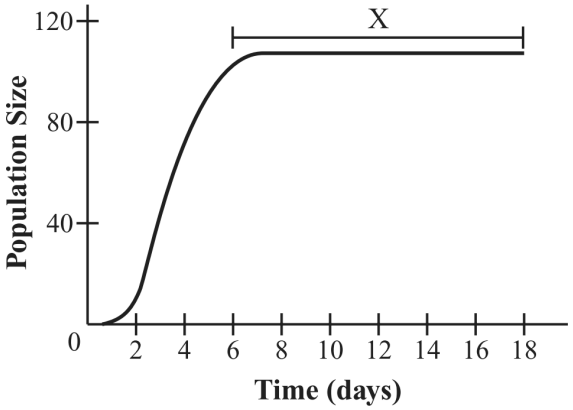


Striped fish are affected by biotic and abiotic factors in their environment. Which of these factors is biotic?

A. water temperature B. mineral nutrients

C. freshwater algae D. inorganic sediments

12. The graph below shows population growth for paramecia kept under laboratory conditions for 18 days.



Which of the following statements explains what is happening in the region of the curve labeled "X"?

A. The population's birthrate is zero.

B. The paramecia are in water that is too warm.

C. The paramecia have used up their food supply.

D. The population's birthrate equals the death rate.

13. How would building a shopping mall in a wetland area impact the environment?

A. The shopping mall would decrease the available habitat for wetland organisms.

B. The shopping mall would increase acid rain production in the wetland area.

C. The shopping mall would contribute to ozone depletion.

D. The shopping mall would accelerate global warming.

14. Which of the following is currently a primary cause of species decline worldwide?

A. habitat destruction

B. intraspecific competition

C. random mating

D. viral outbreaks

15. Brown tree snakes were accidentally carried to the island of Guam in the cargo bays of military planes after World War II. Brown tree snakes prey upon birds. There are no natural predators of brown tree snakes on Guam.

Which of the following *most likely* happened as a result of the arrival of the brown tree snakes on Guam?

A. Forest biodiversity increased.

B. Many bird populations disappeared.

C. Immigration of new species of birds decreased.

D. All reptile species experienced increases in population size.

16. Use the information below to answer the following question(s).

> A team of marine scientists is studying biotic and abiotic factors that affect the stability of a deep-sea ecosystem.

The deep-sea ecosystem is a stable ecosystem. Which of these is a characteristic of *most* stable ecosystems?

A. They contain a wide variety of organisms.

B. They contain very few organisms.

C. Organic nutrients are in short supply.

D. Sunlight is not used to make food.

17. If wolves prey on deer for food, what will *most likely* happen to the deer population if wolves are removed from an area where deer live?

A. The population of deer will increase.

B. The population of deer will decrease.

C. The population of deer will remain the same.

D. The population of deer will become extinct.

18. The brown tree snake is a nonnative species found on the South Pacific island of Guam. The brown tree snake population in Guam is so large that it negatively affects the humans there.

Which statement *best* explains why the brown tree snake has flourished in Guam?

A. There are many animals for food.

B. There are no natural snake predators.

C. The climate is ideal for snake reproduction.

D. The vegetation provides good habitat for hunting.

19. A driver traveling from the coniferous region to the tundra region would most likely observe

A. a decrease in air quality.

B. a decrease in biodiversity.

C. an increase in deciduous tree species.

D. an increase in nighttime temperatures.

20. Use the information below to answer the following questions.

The gypsy moth was accidentally brought into the United States. The caterpillars of these moths eat the leaves of hardwood trees. Eating these leaves decreases the growth of the trees and may cause the trees to die. A gypsy moth and gypsy moth caterpillar are pictured below.

Gypsy Moth

Gypsy Moth Caterpillar

How would an increase in the number of gypsy moth caterpillars affect an environment?

A. Air temperatures would decrease.

B. Tree populations would decrease.

C. The diversity of trees would increase.

D. The amount of oxygen in the air would increase.

21. A simple food chain includes hawks, lizards, and insects. Which will *most likely* happen to the lizard and hawk populations if a pesticide is sprayed to kill the insects, and the lizard and hawk populations cannot find other food in this ecosystem?

A. Both the lizard population and the hawk population will increase.

B. Both the lizard population and the hawk population will decrease.

C. The lizard population will increase, but the hawk population will decrease.

D. The lizard population will decrease, but the hawk population will increase.

22. The Great Barrier Reef has a number of endangered species that live only in that ecosystem. What would *most likely* happen if pollution killed most of the coral that made up the reef?

A. The endangered species would become extinct.

B. The animals on the reef would find a new habitat.

C. The population size of the endangered species would increase.

D. The endangered species would take the place of the dead coral.

23. In which biome are animals *most likely* to spend a season hibernating?

A. desert B. grassland

C. taiga D. tropical rain forest

24. In a forest ecosystem, which is an abiotic factor?

A. the amount of rainfall

B. the size of the deer

C. the type of trees

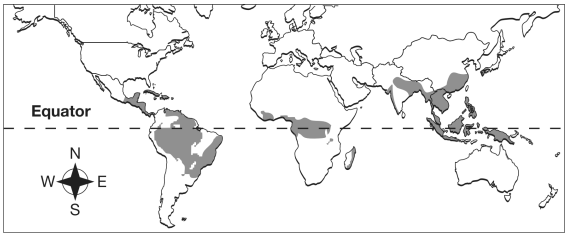
D. the number of birds

25. Use the information and map below to answer the following question(s).

Tropical Rain Forests

Tropical rain forests are located near the equator and have hot, wet climates. The tropical rain forests are home for over half of the plants and animals on Earth. The tropical rain forests in many areas are being destroyed and the land is being used for other purposes. The shaded areas on the map indicate the location of tropical rain forests.

Location of Tropical Rain Forests



Which issue *most likely* results from cutting down tropical rain forests?

A. Habitats for many species are destroyed.

B. Crops are more difficult to grow and harvest.

C. Roads and houses are more difficult to build.

D. Soil quality increases in the deforested areas.

26. Polar bears swim across large expanses of ocean while hunting for seals, their main source of food. The bears use sea ice as resting spots during their long swims. However, the sea ice is rapidly melting as a result of global warming. Which statement describes what *most likely* will happen if global warming continues at its present rate?

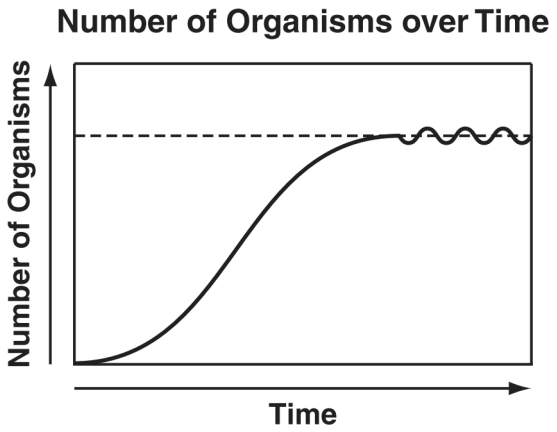
A. Polar bear and seal populations will both increase.

B. Polar bear populations will decrease, and seal populations will increase.

C. Polar bear populations will increase, and seal populations will decrease.

D. Polar bear populations will decrease, and seal populations will remain the same.

27. The graph below shows the number of organisms in an ecosystem over time.



Which biological concept is *best* illustrated by the graph?

A. natural selection

B. carrying capacity

C. geographic isolation

D. predator-prey relationships

28. Which of the following do *most* ecosystems have in common?

A. Most ecosystems have one predator.

B. Most ecosystems are located on land.

C. Energy originates from the Sun for most ecosystems.

D. Bacteria are the only producers for most ecosystems.

29. The tundra receives about as much rainfall as the—

A. taiga. B. deciduous forest.

C. coniferous forest. D. desert.

30. When an organism is first introduced into an ecosystem and has no predators, it will—

A. overpopulate. B. become extinct.

C. become a predator. D. adapt.

31. Why can frogs and snakes live in the same garden?

A. Both keep weeds out of the garden.

B. Both help different plants to grow.

C. Both occupy different niches.

D. Both compete for water.

32. Which statement *best* explains why there are fewer carnivores living in tundra environments than in other environments?

A. The short growing season limits the number of herbivores that support carnivores.

B. There is not enough sunlight for primary producers to carry out photosynthesis.

C. The large number of predators limits the number of carnivores that live in the tundra.

D. There are more disease-causing insects present in the tundra environment.

33. Which type of environment is mostly populated with oak, hickory, beech, and maple trees?

A. taiga B. deciduous forest

C. tundra D. tropical rain forest

34. As more people have moved to the beach, the sea turtle population has decreased. Which is *most likely* the cause of this decrease?

A. tropical storms

B. increase in predators

C. habitat loss

D. warmer temperatures

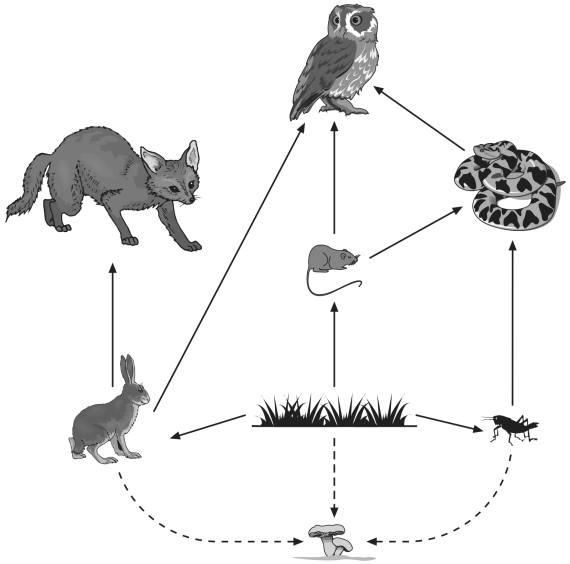
35. Which would *most* help to protect an endangered species?

A. Make the hunting season for that species longer.

B. Import additional species to encourage competition.

C. Set aside protected lands for the species to grow and reproduce.

36. This diagram represents a food web for a community of organisms.



A disease causes the rabbit population to decline drastically. How would this decline in the rabbit population impact the community?

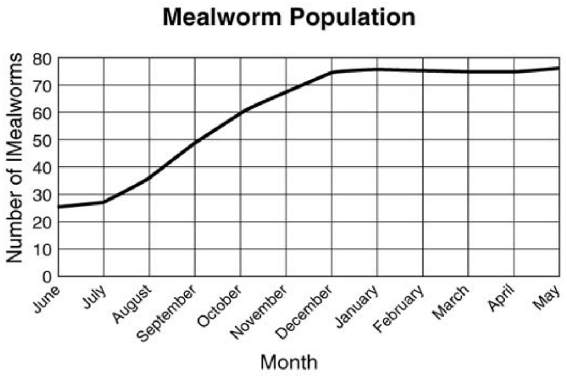
A. The mouse population would decrease.

B. The grasshopper population would decrease.

C. The fox population would decrease.

D. The snake population would decrease.

37.



The graph shows the number of mealworms in a boxed community over a two-month period. Based on the graph, what inference can be made about the mealworm population?

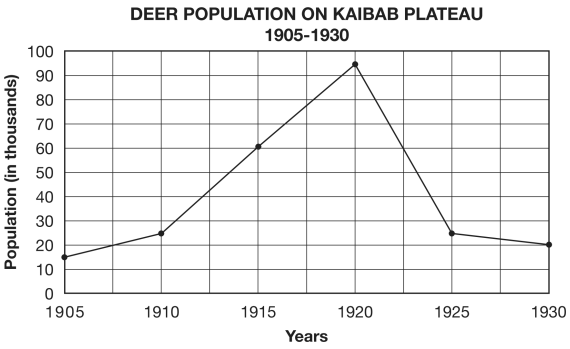
A. Some mealworms are older than other mealworms.

B. Mealworms hibernated during April.

C. The population has carnivorous members.

D. The population reached carrying capacity in December.

38. In the early 1900s, an effort was made to protect the deer population that lived on the Kaibab Plateau in Arizona. Over 6200 predators of the deer were hunted.



The *best* explanation for the increase in the deer population on the Kaibab Plateau is that the deer had

A. less exposure to diseases

B. a more favorable climate

C. an unlimited food supply

D. fewer natural enemies

Biosphere Practice Test 05/05/2015

1.
Answer: C

2.
Answer: B

3.
Answer: A

4.
Answer: C

5.
Answer: C

6.
Answer: A

7.
Answer: B

8.
Answer: D

9.
Answer: B

10.
Answer: A

11.
Answer: C

12.
Answer: D

13.
Answer: A

14.
Answer: A

15.
Answer: B

16.
Answer: A

17.
Answer: A

18.
Answer: B

19.
Answer: B

20.
Answer: B

21.
Answer: B

22.
Answer: A

23.
Answer: C

24.
Answer: A

25.
Answer: A

26.
Answer: B

27.
Answer: B

28.
Answer: C

29.
Answer: D

30.
Answer: A

31.
Answer: C

32.
Answer: A

33.
Answer: B

34.
Answer: C

35.
Answer: C

36.
Answer: C

37.
Answer: D

38.
Answer: D