Name _____ Class_____Date_____

Skills Worksheet

Test Prep Pretest

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ 1. In the exponential model of population growth, the growth rate
a. remains constant.
b. declines.
c. increases.
d. rises and falls.

_____ 2. The most important element of population growth is
a. immigration.
b. emigration.
c. death rate.
d. birthrate.

_____ 3. Most density-dependent factors that affect population growth are
a. biotic.
b. abiotic.
c. stable.
d. unimportant.

_____ 4. What form of interaction is taking place when a shark devours a seal?
a. commensalism
b. mutualism
c. predation
d. parasitism

_____ 5. When lions and hyenas fight over a dead zebra, their interaction is called
a. mutualism.
b. competition.
c. commensalism.
d. parasitism.

_____ 6. Mutualism and commensalism are two types of
a. symbiosis.
b. competition.
c. parasitism.
d. predation.

_____ 7. In the face of competition, an organism may occupy only part of its fundamental niche. That part is called its
a. biome.
b. community.
c. realized niche.
d. ecosystem.

_____ 8. The unique function an organism performs in its environment is called its
a. species.
b. biodiversity.
c. niche.
d. habitat.

_____ 9. Limited resources are the main source of
a. competition.
b. disease.
c. predation.
d. All of the above

_____ 10. The resilience of an ecosystem depends largely on which factor(s)?
a. predation
b. competition
c. biodiversity
d. All of the above

Complete each statement by writing the correct term or phrase in the space provided.

11. A characteristic of _____ is that they often do not kill their prey because they depend on the prey for food and a place to live.
12. Virtually all plants contain toxic compounds that help protect the plants from _____.
13. Rabbits that were introduced to Australia in the 1850s multiplied so rapidly because they had no _____.
14. The entire range of conditions an organism can tolerate is its _____ _____.
15. Back-and-forth evolutionary adjustments between interacting members of an ecosystem are called _____.
16. When sea stars are kept out of their coastal communities, the population of mussels in the ecosystem _____.
17. One important part of a population model is the _____ _____.
18. Density-independent factors are variables that affect a population regardless of the population _____.
19. An important competition among plants is for the abiotic factor of _____.

Read each question, and write your answer in the space provided.

20. Explain how the plant toxins in milkweed benefit monarch butterflies.

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21. Explain how predation, competition, and biodiversity are related.

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22. Explain how several species of warblers that consume insects in spruce trees can occupy the same tree without competition.

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23. What are two possible outcomes of competition?

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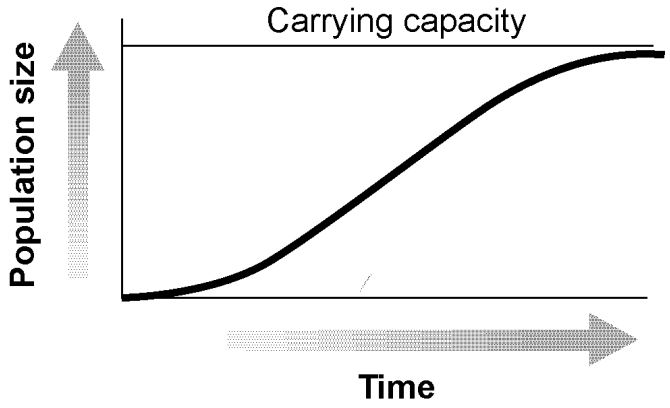
Questions 24–25 refer to the figure below, which shows a growth pattern of a population.



Read each question, and write your answer in the space provided.

24. What population growth model does this graph illustrate?

_____

25. Describe the changes in the line of the graph, and explain what causes the changes.

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