

Pretest: Ecosystems: Stability and Change

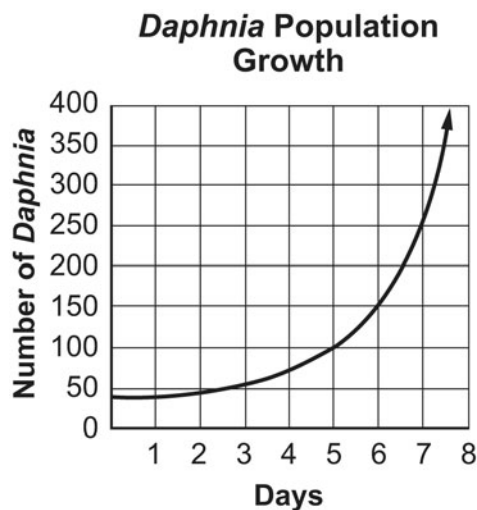
Read each question. Circle the letter of the correct answer.

1. What is the movement of a single caribou into a herd an example of?
A. emigration
B. population
C. immigration
D. competition
2. Which of these is a sequence of biotic changes that regenerates or creates an ecological community?
A. erosion
B. factors
C. migration
D. succession
3. Which of these is a biotic factor that affects population size?
A. air
B. food
C. temperature
D. precipitation
4. What pattern of growth will a population with limited resources show?
A. logistic
B. exponential
C. density-dependent
D. density-independent
5. The development of an ecosystem in an area that has been covered by lava begins with the _____.
A. appearance of soil
B. migration of animals
C. growth of trees and shrubs
D. breakdown of rock by pioneer species
6. Which of these describes lichens and mosses that first colonize a previously barren area?
A. primary species
B. pioneer species
C. non-native species
D. secondary species
7. Which of these will increase the size of a population?
A. emigration and births
B. emigration and deaths
C. immigration and births
D. immigration and deaths
8. What is the reestablishment of a damaged ecosystem in an area where the soil is intact?
A. pioneer succession
B. primary succession
C. secondary succession
D. symbiotic succession
9. Zebra herds that live and move together are an example of what type of dispersion?
A. clumped dispersion
B. uniform dispersion
C. random dispersion
D. territorial dispersion
10. Which of these often describes an ecosystem with high biodiversity?
A. resilient
B. competitive
C. susceptible to disease
D. challenging to survival

11. Which of these is true when individuals in a population usually tend to produce more than one offspring?

A. individuals tend to die quickly
B. populations remain stable in size
C. populations tend to increase in size
D. the number of individuals declines rapidly

12. The graph shows the population size of *Daphnia* over time.



What type of population growth is shown in the graph?

A. logistic growth
B. exponential growth
C. carrying capacity growth
D. density-dependent growth

13. What does it mean to say that most large mammals have type I survivorship curves?

A. roughly equal survivorship rates at all ages
B. high numbers of offspring so that a few will survive
C. very high levels of predation and uniform dispersion
D. low infant mortality and high rates of survival into old age

14. Diseases may spread more rapidly when an area is crowded, so disease is considered to be a _____.

A. population crasher
B. type I survivorship curve
C. requirement for logistic growth
D. density-dependent limiting factor

15. Fourteen beavers live in a pond with an area of 2 square kilometers. What is the population density of the beavers?

A. 7 beavers per square kilometer
B. 14 beavers per square kilometer
C. 16 beavers per square kilometer
D. 28 beavers per square kilometer