

Bio.12-Q1W2-H.W-Population Ecology

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 1. Limiting factors whose effects increase as the size of the population increases are
 - a. abiotic factors.
 - b. density-dependent factors.
 - c. exponential in nature.
 - d. density-independent factors.
- ___ 2. The movement of individuals from a population is
 - a. immigration.
 - b. a reproductive pattern.
 - c. a life-history pattern.
 - d. emigration.
- ___ 3. Unrestricted populations of organisms experience
 - a. exponential growth.
 - b. linear growth.
 - c. infertility.
 - d. biotic growth.
- ___ 4. For a particular species, the carrying capacity is the maximum number of individual organisms that
 - a. the species could reach in a given time period if all the offspring survive and reproduce.
 - b. can be supported by a given environment.
 - c. are in their post-reproductive years.
 - d. can be supported if there are no limiting factors.
- ___ 5. Initially, population growth can be illustrated as a J-shaped curve. What is this type of growth called?
 - a. Sinusoidal
 - b. Linear
 - c. Exponential
 - d. None of the above
- ___ 6. A new species of mouse is introduced into an environment. These mice reproduce and the population grows. As the population grows, food resources diminish and predation by hawks increases. Eventually, the number of mice in the environment levels off so that the rate of birth equals the rate of death. What is this nearly constant number of organisms called?
 - a. Carrying capacity
 - b. Exponential growth
 - c. Linear growth
 - d. None of the above
- ___ 7. You are studying organisms in an artificial environment. The environment is constantly changing and is unpredictable. What life-history pattern would you expect to be most common in this environment?
 - a. Rapid reproduction and short life span
 - b. Rapid reproduction and long life span
 - c. Slow reproduction and short life span
 - d. Slow reproduction and long life span
- ___ 8. Which of the following limiting factors is NOT density-dependent?
 - a. Disease
 - b. Drought
 - c. Competition
 - d. Food supply
- ___ 9. Which of the following is NOT studied by demographers?
 - a. Growth rate
 - b. Age structure
 - c. Geographic distribution
 - d. None of the above
- ___ 10. In analyzing the age structure of a population, you discover that an extraordinarily high percentage of the population is younger than the age of reproductive maturity. What kind of growth will the population probably experience in the future?
 - a. Growth rate will remain the same.
 - b. Slow, steady growth increase
 - c. Rapid growth
 - d. None of the above
- ___ 11. What are forest fires, temperature fluctuations, and floods all examples of?
 - a. Biotic, density-dependent factors
 - b. Biotic, density-independent factors
 - c. Abiotic, density-dependent factors
 - d. Abiotic, density-independent factors
- ___ 12. Which of the following problems do immigration and emigration pose for demographers?
 - a. Demographers must provide for more city services.

- b. Demographers cannot identify the age structure of immigrants.
 - c. Demographers find it difficult to make predictions about populations.
 - d. Demographers study growth rates, age structures, and geographic distributions of populations.
- _____ 13. The effect of movement of people between counties has _____ effect on total world population.
- a. a damaging
 - b. little
 - c. a great
 - d. no
- _____ 14. A country that has a stable population is characterized by an age structure that is _____.
- a. about the same among all groups
 - b. largest among pre-reproductive years
 - c. largest among reproductive years
 - d. largest among post-reproductive years
- _____ 15. The giant land tortoises of the Galapagos Islands and sequoias of California have among the longest life spans of any organisms. This indicates that they likely employ a strategy of _____.
- a. rapid reproduction
 - b. slow growth
 - c. early sexual maturity
 - d. all of these
- _____ 16. Organisms that employ a strategy of slow reproduction usually require an environment that _____.
- a. is stable
 - b. fluctuates from year to year
 - c. has cold days
 - d. has 24-hour growing periods
- _____ 17. Density-independent factors are limiting factors whose effects are _____.
- a. confined to the habitat of the population
 - b. determined by the degree of competition for resources
 - c. not influenced by population densities
 - d. determined by the difference between birthrate and population density
- _____ 18. Unrestricted populations of organisms experience _____.
- a. exponential growth
 - b. linear growth
 - c. fertility
 - d. biotic growth
- _____ 19. The statement, "proportions of a population expressed in terms of the reproductive years of the individual organisms," refers to the population's _____.
- a. fertility rate
 - b. reproductive strategy
 - c. age structure
 - d. carrying capacity
- _____ 20. Population control factors whose effects increase as the size of the population increases are _____.
- a. abiotic factors
 - b. density-dependent factors
 - c. limiting factors
 - d. density-independent factors