

Chapter 6 Drill

Directions: Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case. For answers and explanations, see Chapter 13.

- Populations have all the following characteristics EXCEPT
 - density
 - dispersion
 - habitat
 - gene pool
- Which of the following describes individuals leaving a population?
 - Birth rate
 - Carrying capacity
 - Immigration
 - Emigration
- A population has a growth rate of 2 percent per year. How long will it take for this population to double?
 - 70 years
 - 40 years
 - 35 years
 - 15 years
- An age-structure pyramid is used to
 - study the immigration rates in a population
 - calculate the doubling time of a population
 - study the carrying capacity of a habitat
 - study the number and ages of people in a country
- Which of the following are exhibited by *K*-select organisms?
 - Slow maturation
 - Many small offspring
 - Reproduction occurs late in life
 - I only
 - II only
 - III only
 - I and III only
- A population cycle that is marked by regular increases and decreases in its numbers is correctly said to be
 - boom-and-bust
 - irruptive
 - stable
 - logistic
- The demographic transition model is used to study the
 - effects of migration patterns
 - influence of industrialization on population growth or decline
 - location of large population centers
 - benefits of mass transportation projects
- Which disease is having a severe negative impact on the population in sub-Saharan Africa today?
 - Lung cancer
 - Heart disease
 - HIV/AIDS
 - Alzheimer's
- Which of the numbers below is closest to the population of India?
 - 1.3 billion
 - 1 billion
 - 700 million
 - 400 million
- Which of the following is a density-independent population factor?
 - Number of parasites in the population
 - Number of predators in the population
 - Competition for resources
 - Habitat destruction

11. When a population encounters environmental resistance it is most likely to
- (A) continue its high growth rate
 - (B) develop new mutations and continue growing
 - (C) slow down its growth rate
 - (D) move to a higher growth rate
12. A population's growth can best be calculated using which of the following?
- (A) $(\text{Births} + \text{immigration}) - (\text{deaths} + \text{emigration})$
 - (B) $\text{Immigration} + \text{emigration}$
 - (C) $\text{Emigration} + \text{births}$
 - (D) $(\text{Births} + \text{emigration}) - (\text{deaths} + \text{immigration})$
13. Overexploitation of a species can happen by all of the following EXCEPT
- (A) excessive hunting
 - (B) use of a species for food
 - (C) use of species as a pet
 - (D) habitat conservation
14. Poverty can affect population in all of the following ways EXCEPT
- (A) causing premature deaths
 - (B) increasing the total fertility rate
 - (C) decreasing the total fertility rate
 - (D) forcing the use of resources in unsustainable ways

Free-Response Question

1. A habitat's carrying capacity imposes limits on the growth of populations and their consumption of resources.
 - (a) **Define** the term *carrying capacity*. Give TWO examples of how carrying capacity can impose limits on a population.
 - (b) **Explain** how a population's consumption of natural resources might be controlled. Give TWO examples of how nature slows down the consumption of natural resources by a population.
 - (c) **Describe** TWO ways human activity can raise a habitat's carrying capacity for humans.