

Populations and Biodiversity

Name: _____

Date: _____

1. How can humans *best* help an endangered species avoid extinction?
 - A. They can feed the animals.
 - B. They can put the animals in a zoo.
 - C. They can protect the animal's habitat.
 - D. They can take the animal to new habitats.

2. American alligators used to be an endangered species, but they are not endangered anymore. Which of the following is the *best* reason why there are more American alligators in Louisiana today than there were 50 years ago?
 - A. American alligators have learned to live in new places.
 - B. American alligators are bigger now than they were 50 years ago.
 - C. American alligators are now protected from hunting by humans.
 - D. American alligators have much more habitat than they did 50 years ago.

3. A wetland was drained to build a mall. Two years later, there were no more toads in that area. Why did the toads disappear?
 - A. The toads were destroyed by the construction equipment.
 - B. The toads died because toads cannot breathe out of water.
 - C. The toads were frightened and went into the woods.
 - D. The toads got their food from the wetland ecosystem.

4. Which statement *best* describes how birth and death rates compare in a population at carrying capacity?
 - A. The birth rate is greater than the death rate.
 - B. The birth rate is less than the death rate.
 - C. The birth rate is equal to the death rate.
 - D. The birth rate and the death rate are zero.

5. The marsh willow herb is a plant native to the northeastern United States. It grows *best* in damp habitats.

Which of the following environmental changes would *most likely* cause a decrease in the marsh willow herb population in an area?

- A. a rainstorm lasting several weeks
- B. a drought lasting twelve months
- C. unusually low temperatures during the month of July
- D. unusually high temperatures during the month of January

6. A hurricane sweeps across a small Caribbean island, killing 50 percent of the herbivore species on the island. Which of the following is the most immediate result?

- A. a reduction in biodiversity
- B. an acceleration of the carbon cycle
- C. an increase in predator populations
- D. a decline in decomposer populations

7. Black terns are a species of bird living in marshes, ponds, and marshy lakes. They feed on insects, fish, and crustaceans. They usually make their nests on loose, floating vegetation.

Which of the following environmental changes would *most likely* decrease the size of the black tern population?

- A. A competing bird population decreases in size.
- B. Fish species have a more successful breeding season than usual.
- C. A new plant species invades the environment and creates a dense cover of vegetation.
- D. Insect larvae experience lower than average rates of predation and survive to adulthood.

8. The northern spotted owl is listed under the Endangered Species Act as a threatened species in its primary range of Washington, Oregon, and California. Which of the following *most likely* contributed to the northern spotted owl's population decline?

- A. increases in rodent populations
- B. loss of trees from forest habitat
- C. prevention of wildfires in forests
- D. decreases in mountain lion populations

9. Which of the following *best* explains why tropical insects may be at greater risk for extinction from global warming than insects from higher latitudes?

- A. Many tropical insects lay eggs year-round.
- B. Tropical insects include more pollinator species.
- C. Many tropical insects are herbivores rather than carnivores.
- D. Tropical insects have narrower ranges of tolerance for temperature changes.

10. Which of the following human activities **reduces** biodiversity?

- A. prohibiting hunting in wildlife preserves
- B. taking tissue samples from members of endangered species
- C. planting only native grass species to prevent erosion beside highways
- D. planting only red pine trees to replace native hardwood forests cut for lumber

11. Continuing development of land in the southeastern United States has resulted in large sections of forest being broken into smaller, isolated fragments. Scientists studying these forest fragments have found that the smaller the forest fragment, the closer together birds build their nests.

As a result of the nests being close together, which of the following will *most likely* happen to the birds in a particular forest fragment?

- A. Finding food will become easier for the birds.
- B. Most of the birds will lay eggs later in the year.
- C. Fewer birds will migrate out of the region for the winter.
- D. Viral diseases will spread among the birds more quickly.

12. Woodpeckers are birds that make holes in trees for various purposes, including finding food and making nests. In a small forest region of Southeast Asia, scientists have identified at least 14 different species of woodpeckers.

Which of the following will *most likely* occur if most of the large mature trees in the forest region are cut down?

- A. The woodpecker populations will raise more young per nest.
- B. The woodpecker populations will experience greater immigration.
- C. The woodpecker populations will use new food sources and nesting sites.
- D. The woodpecker populations will lack adequate resources and will decrease.

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

The drawing below shows a field habitat.



Which of these changes would be *most* harmful to the organisms in the field habitat?

- A. more birds flying to the field habitat
- B. increase of rainfall in the field habitat
- C. students walking through the field habitat
- D. construction of a building near the field habitat

14. Nitrogen, a nutrient found in fertilizer, helps plants increase in size. Rainwater runoff often carries fertilizer into ponds and lakes.

What effect does excess nitrogen have on organisms in a pond or lake ecosystem?

- A. Algae grows rapidly.
- B. Mutations occur gradually in fish.
- C. Clam shells are slowly weakened.
- D. Frogs adapt quickly to new food sources.

1.
Answer: C
2.
Answer: C
3.
Answer: D
4.
Answer: C
5.
Answer: B
6.
Answer: A
7.
Answer: C
8.
Answer: B
9.
Answer: D
10.
Answer: D
11.
Answer: D
12.
Answer: D
13.
Answer: D
14.
Answer: A