

## TEST: Ch. 3 Populations and Communities

### Multiple Choice

- \_\_\_\_\_ 1. An organism's habitat must provide all of the following **except**
- a. food.
  - b. water.
  - c. predators.
  - d. shelter.
- \_\_\_\_\_ 2. The nonliving parts of an ecosystem are called
- a. populations.
  - b. organisms.
  - c. biotic factors.
  - d. abiotic factors.
- \_\_\_\_\_ 3. To produce their own food, algae and plants use the abiotic factors sunlight, carbon dioxide, and
- a. soil.
  - b. salt.
  - c. water.
  - d. bacteria.
- \_\_\_\_\_ 4. A population is all the members of one species living in a particular
- a. area.
  - b. habitat.
  - c. ecosystem.
  - d. community.
- \_\_\_\_\_ 5. A group of antelope leaving the herd in search of better grassland is an example of
- a. immigration.
  - b. emigration.
  - c. increasing birth rate.
  - d. decreasing death rate.
- \_\_\_\_\_ 6. If you count 20 beetles in a garden measuring 5 square meters, the population density of the beetles is
- a. 100 beetles per square meter.
  - b. 20 beetles per square meter.
  - c. 5 beetles per square meter.
  - d. 4 beetles per square meter.
- \_\_\_\_\_ 7. An organism's particular role in its habitat, or when and how it survives, is called its
- a. carrying capacity.
  - b. ecosystem.
  - c. competition.
  - d. niche.
- \_\_\_\_\_ 8. All of the following are examples of limiting factors **except**
- a. food.
  - b. soil.
  - c. space.
  - d. weather conditions.
- \_\_\_\_\_ 9. Which of the following is an example of a predator adaptation?
- a. a porcupine's needles
  - b. a shark's powerful jaws
  - c. a frog's bright colors
  - d. a plant's poisonous chemicals
- \_\_\_\_\_ 10. A hawk building its nest on an arm of a saguaro cactus is an example of
- a. commensalism.
  - b. mutualism.
  - c. parasitism.
  - d. predation.

**Completion: Fill in the line to complete each statement.**

11. The part of an ecosystem where an organism lives and feeds is called the organism's \_\_\_\_\_.
12. Nutrients in the soil from decaying remains of animals is a(n) \_\_\_\_\_ factor of an organism's habitat.
13. All the biotic and abiotic factors in an area together make up a(n) \_\_\_\_\_.
14. The main way that populations increase in size is through the \_\_\_\_\_ of offspring.
15. A lack of places to build nests is an example of \_\_\_\_\_ as a limiting factor for a population of birds.

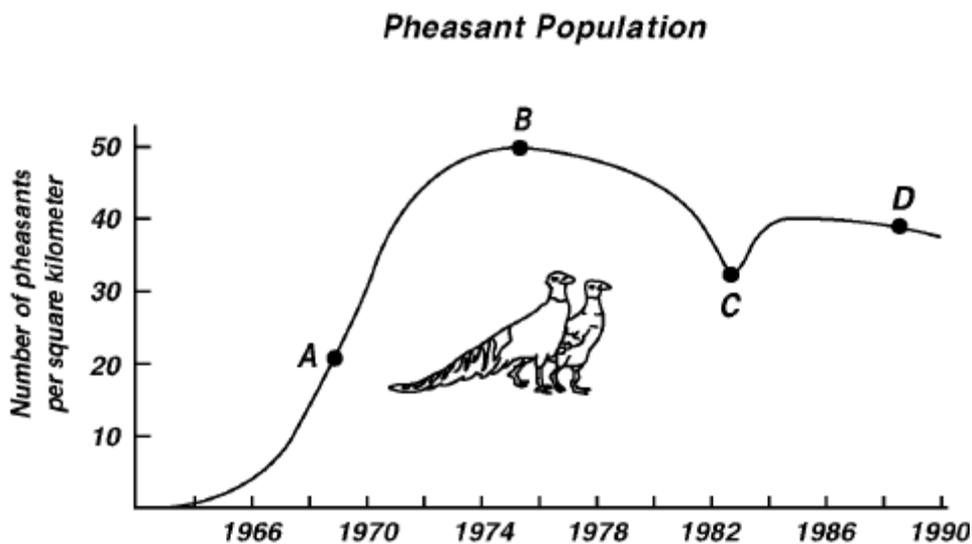
**True or False**

If the statement is true, write true. If it is false, change the underlined word or words to make the statement true.

- \_\_\_\_\_ 16. An insect looks like a leaf, so it blends in with its surroundings and is hard for predators to see. The insect's characteristic is an example of commensalism.
- \_\_\_\_\_ 17. Both species benefit in the type of symbiosis called mutualism.
- \_\_\_\_\_ 18. Population size generally increases if the birth rate is greater than the death rate.
- \_\_\_\_\_ 19. Bees and flowers are biotic factors in an ecosystem.

**Using Science Skills**

Use the figure below to answer the following questions in the spaces provided.



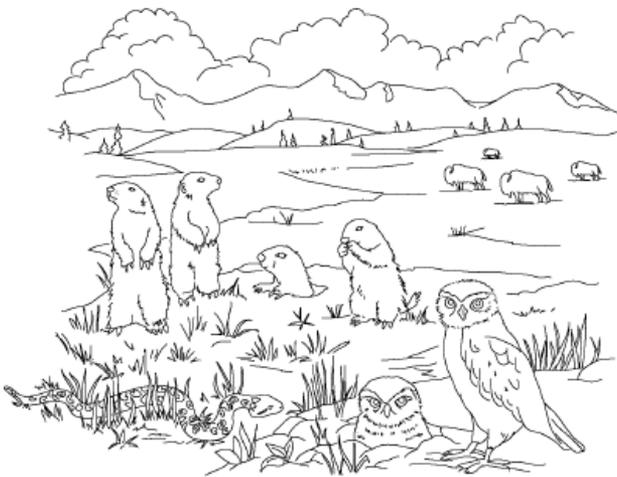
20. What happened to the pheasant population between Point B and Point C?

21. What was the approximate population density of pheasants at points A, B, and D?

Essay:

22. Explain the difference between a population and a community.

*Prairie Ecosystem*



23. What is the smallest unit of organization in an ecosystem? Give one example from the diagram.

24. List three biotic resources and two abiotic resources in the prairie ecosystem.

**25.** Explain why two different species in an ecosystem can share the same habitat but not the same niche.

**26.** Classify these examples of symbiosis by type and explain your choice: 1) Inside a human's intestine live bacteria that make vitamin K; 2) A human picks up bacteria on his or her hands. The bacteria do not cause disease but do feed on the human's dead skin cells; 3) A tick attaches itself to a human and feeds on the human's blood.