

Bio.12-Q1W3- Test 1

Multiple Choice

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

- ____ 1. Which country would you expect to have the greatest biodiversity?
a. Ecuador c. England
b. United States d. Norway
- ____ 2. Cyclosporine, an antirejection drug given to people with organ transplants, was originally isolated from —
a. willow bark. c. a soil fungus.
b. penicillium mold. d. rosy periwinkle.
- ____ 3. The different conditions that arise along the boundaries of an ecosystem are called an edge effect. Which of the following is most likely to cause an increase in the edge effect in an ecosystem?
a. Habitat fragmentation c. Habitat corridors
b. Acid precipitation d. All of the above
- ____ 4. Strips of land that allow the organisms to migrate from one area to another are called —
a. habitat corridors. c. ecosystem bridges.
b. habitat fragments. d. environmental pathways.
- ____ 5. Which of the following species was NOT saved from extinction by being kept in captivity?
a. Ginkgo tree c. Brown pelican
b. California condor d. Black-footed ferret
- ____ 6. The major threat to biodiversity is _____.
a. habitat fragmentation c. habitat degradation
b. habitat loss d. exotic species
- ____ 7. The major focus of conservation biology is _____.
a. to prevent cruelty to animals
b. to keep animals in zoos for people to see
c. protect species from extinction
d. stop hunting

Table 5-1 shows the population sizes for 5 different species in four different areas.

| Area | Species U | Species V | Species W | Species X | Species Y | Species Z |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| A | 3 | 7 | 2 | 2 | 2 | 4 |
| B | 0 | 6 | 8 | 0 | 6 | 6 |
| C | 0 | 0 | 2 | 0 | 0 | 2 |
| D | 4 | 3 | 11 | 1 | 6 | 0 |

Table 5-1

- ____ 8. From Table 5-1, which species has the highest average population size?
a. Species W c. Species Y
b. Species X d. Species Z
- ____ 9. If the four areas in Table 5-1 were the only places in the world to find these organisms, which species most likely faces the greatest chance of extinction?
a. Species U c. Species Y
b. Species X d. Species Z

For many years orchid collectors searched Exotic Islands for the beautiful Kimmarrie Orchid, which is found no place else in the world. After they found the orchid, they brought it back to their homes. In the last couple of years the Kimmarrie Orchid has not been found on the island. As a result, hobbyists are now sending the Kimmarrie Orchid to be replanted on the island.

- ___ 10. The Kimmarrie Orchid became extinct in the wild due to ____.
- habitat loss
 - exotics
 - habitat degradation
 - overcollection
- ___ 11. Which one of the following is NOT a cause of acid precipitation?
- sulfur dioxide from burning coal
 - nitrogen oxides from car exhaust
 - destruction of the ozone layer
- ___ 12. *Salvinia molesta*, a floating aquatic plant, first entered Lake Naivasha in Kenya when a person's fish ponds flooded. The plant quickly grew, changing the habitat of parts of the lake. This is an example of a problem due to ____.
- reintroduction programs
 - exotic species
 - habitat fragmentation
 - edge effect
- ___ 13. Which is NOT true of the U.S. Endangered Species Act?
- It was responsible for the creation of Yellowstone National Park.
 - President Nixon signed it into law in 1973.
 - It was partially responsible for the recovery of some threatened species.
 - Other countries have created similar laws.
- ___ 14. A conservation biology organization wants to raise money to buy a strip of land to connect Protected Area A to Natural Park Area B. This strip would most likely serve ____.
- as a road for tourists
 - as a wildlife corridor
 - to fragment the habitat
 - to slow ozone destruction
- ___ 15. Which of the following species is extinct?
- American bald eagle
 - bison (buffalo)
 - passenger pigeon
 - giant panda
- ___ 16. Which country has the fewest species of mammals?
- Canada
 - United States
 - Mexico

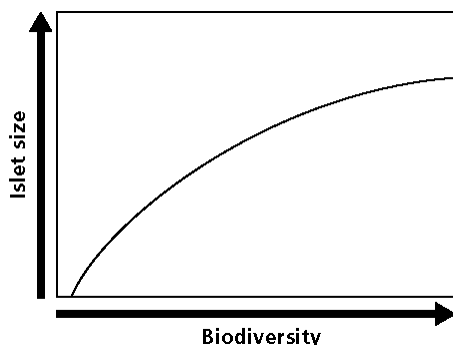


Figure 5-5

- ___ 17. What does the graph in Figure 5-5 tell you?
- the farther from land, the more biodiversity

- b. the larger the islet, the more biodiversity
- c. islet size and biodiversity are not related
- d. biodiversity decreases with islet size

- ___ 18. Using the graph in Figure 5-5, extrapolate what would happen to biodiversity on a large island or continent.
- a. biodiversity would increase greatly
 - b. biodiversity would decrease greatly
 - c. biodiversity would first increase, then decrease
 - d. biodiversity would remain constant
- ___ 19. Using the information from the graph in Figure 5-5, predict what would happen to biodiversity if the ocean level increased.
- a. it would increase
 - b. it would remain the same
 - c. it would decrease
 - d. it would disappear

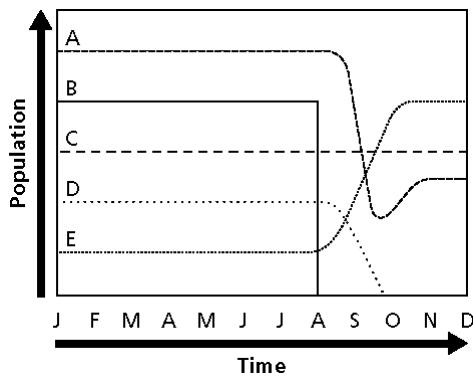


Figure 5-6

- ___ 20. What happened to species B in the graph shown in Figure 5-6?
- a. it increased in biodiversity
 - b. it decreased in population slightly
 - c. it became carnivorous
 - d. it became extinct
- ___ 21. What effect did the loss of species B have on species A and D in Figure 5-6?
- a. it caused the populations of A and D to decrease
 - b. it caused the populations of A and D to increase
 - c. it caused the populations of A and D to become extinct
 - d. it had no effect on the populations of A and D
- ___ 22. Suggest what happened to species E in Figure 5-6.
- a. it became extinct
 - b. it replaced species B in its niche
 - c. it stopped eating species B
 - d. it started eating species A

Table:
Populations and Extinctions

| Island | Area (km ²) | Initial No. of Species | Extinctions |
|--------|-------------------------|------------------------|-------------|
| A | 850,000 | 175 | 25 |
| B | 300,000 | 140 | 35 |
| C | 90,000 | 80 | 50 |

Figure 5-7

- ___ 23. What is the percent loss of species on island A, according to Figure 5-7?
- a. 12.5%
 - b. 14%
 - c. 25%
 - d. 30%

- ____ 24. What factor, according to the data in Figure 5-7, has the greatest impact on species loss?
- | | |
|-----------------------------------|---------------------------|
| a. the original number of species | c. the area of the island |
| b. the distance from the mainland | d. the climate |
- ____ 25. Using Figure 5-7, predict what the approximate species loss would be on an island that is 500,000 km² in size.
- | | |
|----------------------|----------------------|
| a. less than 25 | c. between 35 and 50 |
| b. between 25 and 35 | d. more than 50 |

Modified True/False

Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

- ____ 26. The number of species in an area is a measure of biodiversity. _____
- ____ 27. Temperate deciduous forests have more biodiversity than any other terrestrial biome.

- ____ 28. Habitat fragmentation is the biggest threat to biodiversity. _____
- ____ 29. A plot of protected land may have different conditions at the edges than in the middle. This is known as corridor effect. _____
- ____ 30. A species that is brought to a place where it never lived is considered a(n) native species.
