Bio.12-Q1W3-Qs.Bank

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
b. United States
c. England
d. Norway

____ 2. You are studying a chain of islands in the Pacific Ocean. They all have similar climates, but some are larger than others. The largest island will probably offer the most —
a. biodiversity.
b. niches.
c. Both A and B
d. Neither A nor B

____ 3. When the number of organisms within a species drops to a level so low that extinction is possible, what is the species called?
a. Endangered
b. Threatened
c. Degraded
d. Minimal

____ 4. Which of the following best describes the result of habitat fragmentation?
a. Increased biodiversity
b. Decreased biodiversity
c. No effect on biodiversity
d. Decreased water and land pollution

____ 5. 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
b. Acid precipitation
c. Habitat corridors
d. All of the above

____ 6. Some forms of pollution cause the soil within an ecosystem to become less fertile by removing its nutrients. Which of the following forms of pollutants is responsible for this loss of soil fertility?
a. Chlorofluorocarbons
b. Sulfur dioxide
c. DDT
d. Salt

____ 7. Which of the following most seeks to preserve habitats?
a. The U.S. Endangered Species Act of 1973
b. The Convention of International Trade in Endangered Species
c. Reintroduction programs
d. Establishment of national parks

____ 8. Strips of land that allow the organisms to migrate from one area to another are called —
a. habitat corridors.
b. habitat fragments.
c. ecosystem bridges.
d. environmental pathways.

____ 9. The major threat to biodiversity is _____.
a. habitat fragmentation
b. habitat loss
c. habitat degradation
d. exotic species

____ 10. 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

____ 11. Acid rain changes the pH of soil, killing some trees. This is an example of _____.
a. habitat fragmentation
b. global warming problems
c. habitat degradation
d. exotic species

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

____ 12. From Table 5-1, which species has the highest average population size?
a. Species W
b. Species X
c. Species Y
d. Species Z

____ 13. 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
b. Species X
c. Species Y
d. Species Z

____ 14. Which area in Table 5-1 has the greatest biodiversity?
a. Area A
b. Area B
c. Area C
d. Area D

____ 15. If all four areas in Table 5-1 had identical climate and geology, which one would probably have the smallest area?
a. Area A
b. Area B
c. Area C
d. Area D

For many years orchid collectors searched Exotic Islands for the beautiful Kimmarie 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 Kimmarie Orchid has not been found on the island. As a result, hobbyists are now sending the Kimmarie Orchid to be replanted on the island.

____ 16. The Kimmarie Orchid became extinct in the wild due to _____.
a. habitat loss
b. exotics
c. habitat degradation
d. overcollection

____ 17. The hobbyists are trying to correct the Kimmarie Orchid problem they caused by using _____.
a. exotic species
b. a reintroduction program
c. habitat corridors
d. habitat fragments

____ 18. Island A has an area of 30 square kilometers. Island B has an area of 400 square kilometers. The islands are near each other. Which of the following statements is most likely to be true?
a. Island A has greater biodiversity and a higher percentage of edge effect than Island B.
b. Island A has less biodiversity and a higher percentage of edge effect than Island B.
c. Island A has greater biodiversity and a lower percentage of edge effect than Island B.
d. Island A has less biodiversity and a lower percentage of edge effect than Island B.

____ 19. Consider the following pairs of organisms: large predators and small predators; large herbivores and small herbivores; and migratory animals and non-migratory animals. The two animals most likely to suffer the most from habitat fragmentation are the _____.
a. large predators and migratory animals
b. large herbivores and large predators
c. non-migratory animals and small herbivores
d. migratory animals and large herbivores

____ 20. Which one of the following is NOT a cause of acid precipitation?
a. sulfur dioxide from burning coal
b. nitrogen oxides from car exhaust
c. destruction of the ozone layer

____ 21. Carnivorous birds that fed on organisms exposed to this chemical produced fragile eggs. The chemical is _____.
a. CFC
b. DNA
c. DDT
d. nitrogen oxide

____ 22. Which is NOT true of the U.S. Endangered Species Act?
a. It was responsible for the creation of Yellowstone National Park.
b. President Nixon signed it into law in 1973.
c. It was partially responsible for the recovery of some threatened species.
d. Other countries have created similar laws.

____ 23. 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 _____.
a. as a road for tourists
b. as a wildlife corridor
c. to fragment the habitat
d. to slow ozone destruction

____ 24. Which of the following species is extinct?
a. American bald eagle
b. bison (buffalo)
c. passenger pigeon
d. giant panda

____ 25. Water and air pollution are examples of _____.
a. habitat fragmentation
b. habitat degradation
c. edge effect
d. sustainable use

____ 26. Which country has the fewest species of mammals?
a. Canada
b. United States
c. Mexico

____ 27. If the communities in Figure 5-4 were put in order of least to most biological diversity, they would be _____.

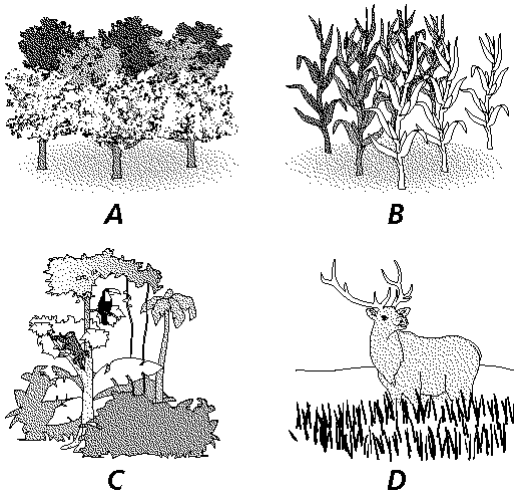

Figure 5-4

a. ABCD
b. CADB
c. DBCA
d. BDAC

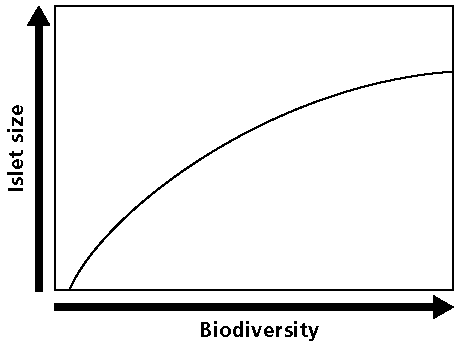

Figure 5-5

____ 28. What does the graph in Figure 5-5 tell you?

a. 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

____ 29. Using the graph in Figure 5-5, extrapolate what would happen to biodiversity on a large island or continent.

a. biodiveristy would increase greatly
b. biodiversity would decrease greatly
c. biodiveristy would first increase, then decrease
d. biodiversity would remain constant

____ 30. 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

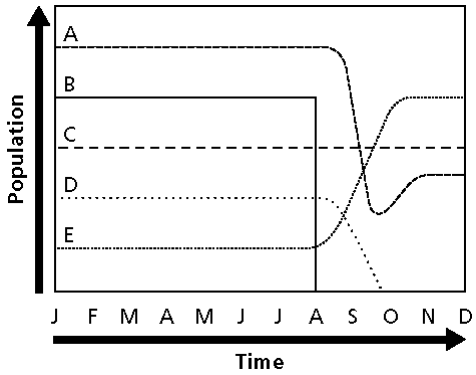

Figure 5-6

____ 31. 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

____ 32. 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

____ 33. Suggest what happened to species E in Figure 5-6.

a. it became extinct
c. it stopped eating species B

b. it replaced species B in its niche
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

____ 34. What is the percent loss of species on island A, according to Figure 5-7?
a. 12.5%
c. 25%
b. 14%
d. 30%

____ 35. 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

____ 36. Using Figure 5-7, predict what the approximate species loss would be on an island that is 500,000 km^2 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.

____ 37. Ecologists work with local people to find ways to protect wildlife habitats. _____

____ 38. The number of species in an area is a measure of biodiversity. _____

____ 39. Temperate deciduous forests have more biodiversity than any other terrestrial biome. _____

____ 40. A conservation biologist's main concern is protecting biodiversity. _____

____ 41. Habitat fragmentation is the biggest threat to biodiversity. _____

____ 42. The pesticide CFC damaged the eggs of the American bald eagle. _____

____ 43. When roads cut across natural areas, this produces habitat fragmentation. _____

____ 44. A plot of protected land may have different conditions at the edges than in the middle. This is known as corridor effect. _____

____ 45. A species that is brought to a place where it never lived is considered a(n) native species. _____

Completion
Complete each statement.

46. The amount of biological diversity in an area is called _____.

47. _____ is a branch of biology that focuses on the preservation of biodiversity.

48. The number of _____ in an area is a measure of biodiversity.

49. The biggest threat to biodiversity is _____.

50. Mexico has more biodiversity than the United States because it is _____.

51. The actions of zebra mussels and sea lamprey in the Great Lakes are examples of problems caused by _____ species.

52. _____ programs seek to establish species in areas where they once lived.

53. Allowing local people to collect fallen branches from trees in a protected forest is an example of the philosophy of _____ use.

54. The U.S. _____ Act of 1973 gave legal protection to threatened and endangered species.

55. The use of CFCs can destroy the _____ in the upper atmosphere.

Bio.12-Q1W3-Qs.Bank
Answer Section

MULTIPLE CHOICE

1. ANS: A
   Biodiversity tends to increase as one moves toward the equator. The ecosystem that houses the greatest amount of biodiversity is the tropical rain forest.

   PTS: 1
2. ANS: C
   Larger islands contain more biodiversity because they offer more opportunities for unique niches to develop.

   PTS: 1
3. ANS: A
   A species is classified as endangered when its population becomes so low that extinction is possible.

   PTS: 1
4. ANS: B
   When a habitat is fragmented, it is split into smaller islands. This results in a loss of biodiversity because smaller islands support fewer species.

   PTS: 1
5. ANS: A
   When a habitat is fragmented, it is split into smaller islands. This results in a loss of biodiversity because smaller islands support fewer species.

   PTS: 1
6. ANS: B
   The burning of coal releases sulfur dioxide, which results in acid precipitation. This acidic water leaches essential nutrients from the soil, decreasing its fertility.

   PTS: 1
7. ANS: D
   In order to protect entire ecosystems, governments create national parks, such as Yellowstone National Park.

   PTS: 1
8. ANS: A
   Habitat corridors connect protected areas in order to facilitate migration of organisms between them.

   PTS: 1
9. ANS: B PTS: 1 DIF: B OBJ: 5-2
   NAT: C4 | C5 | C6
10. ANS: C PTS: 1 DIF: B OBJ: 5-3
    NAT: C4 | C5 | C6
11. ANS: C PTS: 1 DIF: B OBJ: 5-2
    NAT: C4 | C5 | C6
12. ANS: A PTS: 1 DIF: A OBJ: 5-3

NAT: C4 | C5 | C6

13. ANS: B PTS: 1 DIF: A OBJ: 5-3
NAT: C4 | C5 | C6

14. ANS: A PTS: 1 DIF: B OBJ: 5-3
NAT: C4 | C5 | C6

15. ANS: C PTS: 1 DIF: B OBJ: 5-3
NAT: C4 | C5 | C6

16. ANS: D PTS: 1 DIF: B OBJ: 5-3
NAT: C4 | C5 | C6

17. ANS: B PTS: 1 DIF: B OBJ: 5-3
NAT: C4 | C5 | C6

18. ANS: B PTS: 1 DIF: B OBJ: 5-1
NAT: C4 | C5 | C6

19. ANS: A PTS: 1 DIF: B OBJ: 5-2
NAT: C4 | C5 | C6

20. ANS: C PTS: 1 DIF: B OBJ: 5-2
NAT: C4 | C5 | C6

21. ANS: C PTS: 1 DIF: B OBJ: 5-2
NAT: C4 | C5 | C6

22. ANS: A PTS: 1 DIF: B OBJ: 5-3
NAT: C4 | C5 | C6

23. ANS: B PTS: 1 DIF: B OBJ: 5-3
NAT: C4 | C5 | C6

24. ANS: C PTS: 1 DIF: B OBJ: 5-2
NAT: C4 | C5 | C6

25. ANS: B PTS: 1 DIF: B OBJ: 5-2
NAT: C4 | C5 | C6

26. ANS: A PTS: 1 DIF: B OBJ: 5-2
NAT: C4 | C5 | C6

27. ANS: D PTS: 1 DIF: B OBJ: 5-1
NAT: C4 | C5 | C6

28. ANS: B PTS: 1 DIF: A OBJ: 5-1
NAT: C4 | C5 | C6

29. ANS: A PTS: 1 DIF: A OBJ: 5-1
NAT: C4 | C5 | C6

30. ANS: C PTS: 1 DIF: A OBJ: 5-2
NAT: C4 | C5 | C6

31. ANS: D PTS: 1 DIF: A OBJ: 5-2
NAT: C4 | C5 | C6

32. ANS: A PTS: 1 DIF: A OBJ: 5-2
NAT: C4 | C5 | C6

33. ANS: B PTS: 1 DIF: A OBJ: 5-2
NAT: C4 | C5 | C6

34. ANS: B PTS: 1 DIF: A OBJ: 5-2
NAT: C4 | C5 | C6

35. ANS: C PTS: 1 DIF: A OBJ: 5-1
NAT: C4 | C5 | C6

36. ANS: B PTS: 1 DIF: A OBJ: 5-2
NAT: C4 | C5 | C6

MODIFIED TRUE/FALSE

37. ANS: F, Conservation biologists

PTS: 1 DIF: B OBJ: 5-3 NAT: C4 | C5 | C6

38. ANS: T PTS: 1 DIF: B
OBJ: 5-1 NAT: C4 | C5 | C6

39. ANS: F, Tropical rain forests

PTS: 1 DIF: B OBJ: 5-1 NAT: C4 | C5 | C6

40. ANS: T PTS: 1 DIF: B
OBJ: 5-3 NAT: C4 | C5 | C6

41. ANS: F, loss

PTS: 1 DIF: B OBJ: 5-2 NAT: C4 | C5 | C6

42. ANS: F, DDT

PTS: 1 DIF: B OBJ: 5-2 NAT: C4 | C5 | C6

43. ANS: T PTS: 1 DIF: B
OBJ: 5-2 NAT: C4 | C5 | C6

44. ANS: F, edge

PTS: 1 DIF: B OBJ: 5-3 NAT: C4 | C5 | C6

45. ANS: F, exotic

PTS: 1 DIF: B OBJ: 5-2 NAT: C4 | C5 | C6

COMPLETION

46. ANS: biodiversity

PTS: 1 DIF: B OBJ: 5-1 NAT: C4 | C5 | C6

47. ANS: Conservation biology

PTS: 1 DIF: B OBJ: 5-3 NAT: C4 | C5 | C6

48. ANS: species

PTS: 1 DIF: B OBJ: 5-1 NAT: C4 | C5 | C6

49. ANS: habitat loss

PTS: 1 DIF: B OBJ: 5-2 NAT: C4 | C5 | C6

50. ANS:
warmer
closer to the equator

PTS: 1 DIF: B OBJ: 5-1 NAT: C4 | C5 | C6

51. ANS:

exotic
introduced

PTS: 1 DIF: B OBJ: 5-2 NAT: C4 | C5 | C6

52. ANS: Reintroduction

PTS: 1 DIF: B OBJ: 5-3 NAT: C4 | C5 | C6

53. ANS: sustainable

PTS: 1 DIF: B OBJ: 5-4 NAT: C4 | C5 | C6

54. ANS: Endangered Species

PTS: 1 DIF: B OBJ: 5-3 NAT: C4 | C5 | C6

55. ANS: ozone layer

PTS: 1 DIF: B OBJ: 5-2 NAT: C4 | C5 | C6