Biodiversity in Ecosystems Test

Part I – Multiple Choice

Directions: Choose the best answer for each question.

1. What is biodiversity?
   A. The number of ecosystems in one area
   B. The variety of living organisms in an area
   C. The amount of rainfall in an ecosystem
   D. The number of non-living factors in an ecosystem
2. Which of the following contributes to biodiversity?
   A. Variety of species
   B. Variety of habitats
   C. Genetic differences among organisms
   D. All of the above
3. What is a **species**?
   A. A group of organisms that are similar and can reproduce with one another
   B. All organisms living in an ecosystem
   C. A group of different ecosystems
   D. A non-living part of an environment
4. Why is biodiversity important to an ecosystem?
   A. It makes ecosystems less stable.
   B. It helps ecosystems remain healthy and resilient.
   C. It prevents organisms from interacting.
   D. It eliminates competition.
5. Which ecosystem would most likely have high biodiversity?
   A. A tropical rainforest
   B. A parking lot
   C. A small area containing only one plant species
   D. A frozen patch of ice with no living organisms
6. What is **species diversity**?
   A. The number of non-living factors in an ecosystem
   B. The amount of sunlight an ecosystem receives
   C. The number of habitats on Earth
   D. The variety of species living in an ecosystem
7. What is **genetic diversity**?
   A. Differences in genes among individuals of the same species
   B. Differences between ecosystems
   C. The number of species in an ecosystem
   D. The number of predators in an ecosystem
8. What is **ecosystem diversity**?
   A. The number of genes in one organism
   B. The number of individuals in one species
   C. The variety of ecosystems in a region or on Earth
   D. The number of predators in an ecosystem
9. Which of the following is a major threat to biodiversity?
   A. Habitat destruction
   B. Conservation
   C. Recycling
   D. Reforestation
10. How can habitat destruction affect biodiversity?
    A. It can reduce the # of species that can survive in an area.
    B. It always increases biodiversity.
    C. It has no effect on organisms.
    D. It creates unlimited resources.
11. Which human activity can contribute to habitat destruction?
    A. Deforestation
    B. Planting native trees
    C. Creating wildlife preserves
    D. Recycling materials
12. What is an **endangered species**?
    A. A species that is very common
    B. A species at risk of becoming extinct
    C. A species that has already become extinct
    D. A species that lives only in water
13. What does **extinction** mean?
    A. A species becomes more common.
    B. A species moves to another habitat.
    C. A species no longer exists anywhere on Earth.
    D. A species develops a new adaptation.
14. Which of the following can help protect biodiversity?
    A. Establishing protected areas
    B. Destroying habitats
    C. Increasing pollution
    D. Introducing invasive species
15. What is an **invasive species**?
    A. A native species that is endangered
    B. A non-native organism that can harm an ecosystem
    C. A species that has become extinct
    D. A species that only lives in a protected area
16. Why can invasive species be harmful?
    A. They may compete with native species for resources.
    B. They always increase the number of native species.
    C. They eliminate all predators.
    D. They cannot reproduce.
17. How can pollution affect biodiversity?
    A. It always increases biodiversity.
    B. It can damage habitats and harm organisms.
    C. It has no effect on ecosystems.
    D. It guarantees that species will survive.
18. What is **conservation**?
    A. The destruction of habitats
    B. The removal of all predators
    C. The protection and careful management of natural resources and ecosystems
    D. The introduction of invasive species
19. Why are genetic differences within a species important?
    A. They can help populations adapt to changing environmental conditions.
    B. They prevent organisms from reproducing.
    C. They eliminate natural selection.
    D. They make all organisms identical.
20. Which action would BEST help maintain biodiversity?
    A. Destroying forests
    B. Overhunting wildlife
    C. Introducing non-native species into new environments
    D. Protecting habitats and reducing pollution

Part II – True or False - Directions: Write **T** or **F**

21. _____ Biodiversity refers to the variety of life in an area.
22. _____ Biodiversity includes genetic diversity, species diversity, and ecosystem diversity.
23. _____ An ecosystem with only one species has very high species diversity.
24. _____ Habitat destruction can cause a decrease in biodiversity.
25. _____ Extinction occurs when a species no longer exists anywhere on Earth.
26. _____ All ecosystems have exactly the same level of biodiversity.
27. _____ Genetic diversity can help a species adapt to environmental changes.
28. _____ Invasive species can negatively affect native species.
29. _____ Conservation efforts can help protect biodiversity.
30. _____ Pollution can be a threat to biodiversity.

Part III – Matching
Directions: Match each term in Column A with the correct definition in Column B.

Column A	**Column B**
31. _____ Biodiversity	A. A species that is at risk of becoming extinct
32. _____ Species diversity	B. The variety of species in an ecosystem or area
33. _____ Genetic diversity	C. The variety of genes and inherited traits within a species
34. _____ Ecosystem diversity	D. The protection and responsible management of natural resources
35. _____ Endangered species	E. The variety of ecosystems in a region or on Earth
36. _____ Extinction	F. The variety of living organisms in an area
37. _____ Conservation	G. A non-native species that can cause harm to an ecosystem
38. _____ Invasive species	H. The destruction or alteration of an organism's natural home
39. _____ Habitat destruction	I. A community of organisms interacting with one another & with their Environment
40. _____ Ecosystem	J. The permanent disappearance of a species from Earth

Part IV – Fill in the Blank

Directions: Use the word bank to complete each sentence.

Word Bank

biodiversity | conservation | extinction | habitat | endangered
invasive | genetic | species | ecosystem | pollution

41. The variety of life found in an area is called _____.
42. Differences in inherited traits among individuals of the same species are called _____ diversity.

43. A group of organisms that can reproduce with one another is called a _____.

44. A species that is at risk of becoming extinct is considered _____.

45. The permanent disappearance of a species is called _____.

46. An organism introduced into an area where it is not native & can cause harm is called an _____ species.

47. The place where an organism normally lives is its _____.

48. The protection and responsible use of natural resources is called _____.

49. Harmful substances released into the environment are forms of _____.

50. A community of organisms interacting with each other and with their physical environment is an _____.
