

Self-Test: Chapters 3, 4, and 5

Completion

Complete each statement.

1. _____ is the study of how organisms interact with each other and with their environment.
2. An ecosystem consists of the living and _____ environment.
3. The physical area in which an organism lives is called its _____.
4. An ecological model is limited in its application because no model can account for every _____ in an environment.
5. The _____ of an organism includes its habitat, its feeding habits, other aspects of its biology, and its interactions with other organisms and with the environment.
6. If a deer in a forest is classified as a herbivore, then the cougar that eats the deer is classified as a(n) _____.
7. Animals that eat only primary producers are classified as _____.
8. Bacteria that break down dead tissue are called _____.
9. When the interrelated food chains in an ecosystem are represented together, the model is called a(n) _____.
10. The primary productivity of an ecosystem is a measure of the amount of organic material that the _____ organisms in the ecosystem produce.
11. A one-way path of feeding relationships among organisms in an ecosystem is called a(n) _____.
12. In an ecosystem, _____ diminishes at each successive trophic level.
13. An energy pyramid shows the amount of energy contained in the bodies of organisms at each _____ level.
14. Every time energy is transferred in an ecosystem, some of the energy is lost as _____.
15. Cellular respiration and photosynthesis are the two processes that form the basis of the biogeochemical cycle known as the _____ cycle.
16. When forests are cut down, both water and nutrient _____ are disrupted.
17. Water that seeps into the soil is called _____.
18. The conversion of nitrogen gas to nitrate by the action of bacteria is called _____.
19. The process of _____ occurs when anaerobic bacteria break down nitrates and release nitrogen gas back into the atmosphere.
20. Population density refers to how many _____ are present in a particular location.
21. The way that members of a population are arranged in a given area is called the _____ of the population.
22. A population of organisms will grow when its _____ exceeds its death rate.

23. A _____ is the average mortality rate of individuals of a species, over a typical lifetime, modeled as a curve on a graph.
24. _____ is defined as the amount by which a population's size changes in a given amount of time.
25. The population size that can be sustained by an environment is called the _____ of the environment.
26. The main reason Earth's human population has increased over the past 350 years is because of a decrease in the _____ rate.
27. In a parasitic relationship, the organism that provides a benefit to another organism at its own expense is called the _____.
28. The general term for the relationship in which one organism eats another is _____.
29. A symbiotic relationship in which one organism benefits and another is often harmed but not killed is called _____.
30. A close relationship between two dissimilar organisms is called _____.
31. The struggle among organisms for the same limited natural resources is called _____.
32. The symbiotic relationship in which one organism benefits and the other neither benefits nor suffers harm is called _____.
33. A fish called a cleaner wrasse eats the tiny parasites that cling to and feed upon much larger fish. This activity benefits both kinds of fish. Therefore, the cleaner wrasse has a(n) _____ relationship to the larger fish.
34. The sequential establishment of populations in an area that has not previously supported life is called _____.
35. _____ species are adapted for growing well in habitats where other species are not yet present.
36. Secondary succession is typically completed in less time than primary succession because there is already _____ present in the habitat.
37. Stable communities are less likely to be greatly affected by _____.
38. The biome that has coniferous trees as the dominant vegetation is the _____.
39. The thick, continually frozen soil layer found in the northern tundra is called _____.
40. Zebras, gazelles, and lions usually live in the biome called the _____.
41. The biome that makes up most of the central part of the continental United States is the _____.
42. Trees that lose their leaves every year are known as _____ trees.
43. _____ are characterized by lush vegetation, abundant rain, and year-round warm temperatures.
44. A(n) _____ occurs where a major river flows into the ocean.
45. Streams in mountainous areas have _____ gradients.
46. Marshes, swamps, and bogs are examples of _____.