Name: Key Class: _____ Date: _____ ID: A

CHAPTER 4 REVIEW

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

D 1. What word describes the mammals, fish, birds, and plants that live in an environment?
a. abiotic
b. the population
c. the biosphere
d. biotic

A 2. A community is several species of animals interacting, while a population is
a. members of one species in an area.
b. the biotic and abiotic elements of an area.
c. the nonliving elements of a habitat.
d. a single organism.

D 3. Which of the following is abiotic?
a. a gar
b. an alligator
c. grass
d. water

C 4. Organisms that can make their own food from sunlight are called
a. decomposers.
b. consumers.
c. producers.
d. carnivores.

D 5. Grass is eaten by a prairie dog. The prairie dog is eaten by a coyote. This is an example of
a. an abiotic element.
b. an omnivore.
c. a herbivore.
d. a food chain.

B 6. One food web arrow goes from a prairie dog to a coyote, showing that
a. the coyote is bigger.
b. the coyote eats the prairie dog.
c. the prairie dog eats the coyote.
d. the prairie dog is a producer.

A 7. Without wolves, Yellowstone Parkwould have
a. too many elk.
b. too much grass.
c. too many rabbits.
d. too many cows.

B 8. A bird eats a worm. Who is the predator?
a. the worm
b. the bird
c. both the bird and the worm
d. neither the bird nor the worm

B 9. Rocks, temperature, and water are what part of the environment?
a. biotic
b. abiotic
c. population
d. living

C 10. What do several different populations living together make?
a. a biosphere
b. an organism
c. a community
d. an ecosystem

B 11. Which is an example of an abiotic element changing an area?
a. introducing a new type of grass
b. water flooding the area
c. two species of birds competing
d. algae growing on crabgrass

D 12. Grass that gains energy from the sun is an example of a
a. consumer.
b. parasite.
c. decomposer.
d. producer.

C 13. A diagram with arrows showing energy flow from grass, to a rabbit, to a fox is
a. an energy pyramid.
b. a food web.
c. a food chain.
d. a population chart.

C 14. In a food web, arrows point in just one direction because they show
a. which animal is bigger.
b. which animals are related.
c. how energy goes to the animal that is eating.
d. how energy goes to the animal that is eaten.

B 15. What is the lowest level of environmental organization that three male egrets would all belong in together?
a. individual organism
b. population
c. community
d. ecosystem

C 16. If scientists are studying the egrets, herons, marsh crabs, and cordgrass, but not the water or rocks in a salt marsh, what level of organization would they be studying?
a. individual organism
b. population
c. community
d. ecosystem

D 17. Herbivores, carnivores, and omnivores are all
a. decomposers.
b. producers.
c. predators.
d. consumers.

C 18. Animals that eat a variety of meats, fruits, and vegetables are
a. producers.
b. carnivores.
c. omnivores.
d. herbivores.

C 19. A scientist studying the way egrets, herons, and crabs interact, who is not interested in abiotic factors such as the rocks, water, and temperature, is studying what level of environmental organization?
a. population
b. ecosystem
c. community
d. biosphere

B 20. Rocks, temperature, and water are what kind of things?
a. biotic
b. abiotic
c. population
d. living

C 21. What level of organization comes after population?
a. biosphere
b. organism
c. community
d. ecosystem

D 22. What living things make food from sunlight?
a. consumers
b. parasites
c. decomposers
d. producers

B 23. What happened to other living things when the wolves no longer lived in Yellowstone?
a. They were better off.
b. They were out of balance.
c. They died.
d. They were not changed.

C 24. If you made a chart showing all the organisms living in the local lake, with arrows drawn between the various organisms showing who ate what, what kind of chart would you have made?
a. energy pyramid
b. food chain
c. food web
d. ecosystem chart

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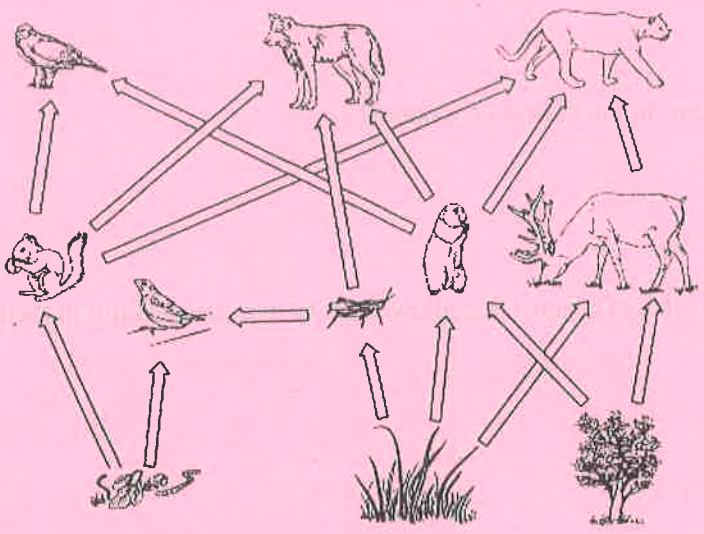
Use the image below to answer the following questions.



A 25. The arrows on the food web show that
a. prairie dogs eat grass.
b. deer eat prairie dogs.
c. squirrels eat grass.
d. squirrels eat coyotes.

D 26. Three organisms on the food web have arrows pointing away from them and no arrows pointing toward them. They are
a. omnivores.
b. herbivores.
c. decomposers.
d. producers.

C 27. Three organisms on the food web have arrows pointing toward them but no arrows pointing away from them. This is because
a. they make their own food.
b. they give energy to others.
c. nothing shown eats them.
d. they need no energy.

D 28. What does the arrow between the grasshopper and the coyote represent?
a. energy flowing from producers to consumers
b. energy flowing from consumers to producers
c. energy flowing from the coyote to the grasshopper
d. energy flowing from the grasshopper to the coyote

A 29. How much energy does a secondary consumer recieve if the producer starts of with 3000 units of energy?
a. 30
b. 3
c. 300
d. 30,000

Essay

30. Part 1.Explain the two purposes of the shape of the energy pyramid.

Part 2 If the producers remained on the bottom would the explanation still work if the pyramid were upside down (narrow part on bottom)?

There are ~~less~~ fewer animals as you go up the energy pyramid.
There is less energy available as you go up the energy pyramid.

Name: _____ ID: A

B 23. 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

D 24. Which of the following is a biotic factor in the prairie ecosystem?
a. water
b. sunlight
c. soil
d. grass

D 25. The behaviors and physical characteristics of species that allow them to live successfully in their environment are called
a. habitats.
b. limiting factors.
c. biotic factors.
d. adaptations.

Essay

26. Explain why decomposers are essential to life on Earth. Support in 2 to 3 sentances.

They break down dead things and return nutrients to the soil.

27. Below describe the conditions of YOUR ECOSYSTEM and then describe at LEAST three special adaptations that may help an organism survive in it.