BIOLOGY · ALABAMA

Biology
Practice Test

Unit 4: Ecology and Ecosystems

25 Questions

Original practice test based on the Alabama curriculum. Work through each question, then check your answers at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

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Question 1

An ecosystem includes all the living organisms in an area plus the

A) Nonliving factors

B) Producers only

C) Predators only

D) Decomposers only

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Question 2

A biotic factor in an ecosystem is a

A) Rock

B) Living organism

C) Temperature

D) Rainfall

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Question 3

An abiotic factor in an ecosystem is

A) A tree

B) A bacterium

C) Soil

D) A deer

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Question 4

A population is best defined as all the members of one species in a

A) Food chain

B) Cell

C) Biome

D) Particular area

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Question 5

A community is made up of all the populations of different species living in a

A) Particular area

B) Single cell

C) Food web

D) Single habitat

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Question 6

An organism niche is its

A) Address

B) Role in its ecosystem

C) Population size

D) Food source only

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Question 7

Producers in most ecosystems make their own food by

A) Eating animals

B) Decomposing waste

C) Photosynthesis

D) Hunting

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Question 8

Decomposers help an ecosystem by

A) Making food from sunlight

B) Eating live prey

C) Hunting predators

D) Breaking down dead matter

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Question 9

In a food chain energy flows from

A) Consumers to producers

B) Producers to consumers

C) Decomposers to producers

D) Predators to prey

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Question 10

About how much energy is typically transferred from one trophic level to the next

A) 10 percent

B) 50 percent

C) 90 percent

D) 100 percent

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Question 11

If producers contain 10000 kilocalories of energy about how many kilocalories reach primary consumers

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Question 12

Competition occurs when two organisms need the same

A) Predator

B) Limited resource

C) Offspring

D) Climate

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Question 13

In mutualism both species in the relationship

A) Benefit

B) Are harmed

C) Are unaffected

D) Compete

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Question 14

In commensalism one species benefits and the other species is

A) Harmed

B) Also benefited

C) Unaffected

D) Eaten

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Question 15

In parasitism the parasite benefits and the host is

A) Unaffected

B) Also benefited

C) Harmed

D) Unchanged

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Question 16

Carrying capacity is the largest population an environment can support over a

A) Day

B) Week

C) Long period

D) Single season

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Question 17

A limiting factor is a factor that limits the

A) Size of a population

B) Age of a species

C) Color of an organism

D) Speed of an organism

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Question 18

Primary succession begins on newly exposed rock or land with no

A) Sunlight

B) Soil

C) Air

D) Water

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Question 19

Pioneer species such as lichens are important in primary succession because they help

A) Form soil

B) Remove sunlight

C) Eat trees

D) Stop rain

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Question 20

Secondary succession occurs after a disturbance in an area that still has

A) No life

B) Soil

C) No water

D) No air

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Question 21

In the carbon cycle plants remove carbon dioxide from the air by

A) Respiration

B) Photosynthesis

C) Decomposition

D) Combustion

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Question 22

Nitrogen fixing bacteria convert nitrogen gas from the air into forms that plants can

A) Breathe

B) Use

C) Ignore

D) Store as gas

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Question 23

A keystone species has a large effect on its ecosystem relative to its

A) Size

B) Age

C) Abundance

D) Color

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Question 24

An invasive species can harm an ecosystem because it often has few

A) Offspring

B) Natural predators

C) Food sources

D) Habitats

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Question 25

If a population of 200 animals grows by 10 percent in a year how many animals are added

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ANSWER KEY

1. A
2. B
3. C
4. D
5. A
6. B
7. C
8. D
9. B
10. A
11. 1000
12. B
13. A
14. C
15. C
16. C
17. A
18. B
19. A
20. B
21. B
22. B
23. C
24. B
25. 20

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