ARKANSAS BIOLOGY · UNIT 4 · 25 QUESTIONS

Ecology and Ecosystems — Practice Test

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.

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

A Nonliving factors they interact with

B Only producers

C Only predators

D Only soil

Understand It with Pulse | Flag a mistake

2 **Abiotic factors in a pond include water temperature, dissolved oxygen, and**



A Algae

B Sunlight

C Fish

D Bacteria

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3 **Biotic factors in a forest include trees, deer, fungi, and**



A Rainfall

B Soil pH

C Bacteria

D Sunlight

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4 **A population is all members of one species living in**

- A Different continents
- B One habitat only as individuals
- C A food web only
- D The same area at the same time

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5 **A community is all the populations of different species living in**

- A The same area at the same time
- B One species only
- C Different areas
- D A single organism

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6 **A niche is the role of a species, including its food, habitat, and**

- A Population size only
- B Interactions with other species
- C Colour only
- D Body size only

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7 **Two species cannot occupy exactly the same niche in the same place for long, because of**

- A Mutualism
- B Predation only
- C Competitive exclusion
- D Succession

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8 **In a food chain, energy flows from producers to**

A Decomposers first

B Top predators first

C Producers again

D Primary consumers, then secondary consumers

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9 **Producers capture energy, usually from sunlight, and make**



A Organic compounds from inorganic ones

B ATP from animals

C Nitrogen from predators

D Water from consumers

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10 **A food web differs from a single food chain because it shows**

- A Only one predator
- B Many interconnected feeding relationships
- C Only producers
- D No decomposers

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11 **Decomposers return nutrients to soil and water by breaking down**

- A Living producers only
- B Sunlight
- C Dead organic matter
- D Minerals only

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12 **Only about ten percent of energy moves from one trophic level to the next, mainly because much energy is lost as**

A Light reflected by leaves

B Water vapour only

C Stored fat only

D Heat through respiration

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13 **A biomass pyramid usually narrows upward because total living mass**

A Decreases at higher trophic levels

B Increases at higher levels

C Stays equal at all levels

D Is zero at the top

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14 **A predator prey relationship can cause populations to cycle, because when prey increase, predators**



A Disappear permanently

B Increase after a delay, then prey fall

C Stop eating

D Become producers

Understand It with Pulse | Flag a mistake

15 **In mutualism both species benefit, as when bees gain nectar and flowers gain**



A Predation

B Disease

C Pollination

D Competition

Understand It with Pulse | Flag a mistake

16 **In commensalism one species benefits while the other is**

A Harmed

B Also benefited equally

C Killed

D Neither helped nor harmed

Understand It with Pulse | Flag a mistake

17 **In parasitism one species benefits at the expense of**

A Its host

B Its predator

C Its prey only

D A decomposer

Understand It with Pulse | Flag a mistake

18 **Carrying capacity is the largest population an environment can support over time given its**

A Predators only

B Resources and limiting factors

C Climate only

D Species name

Understand It with Pulse | Flag a mistake

19 **A density dependent limiting factor, such as disease, has a stronger effect when population density is**

A Low

B Zero

C High

D Constant

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20 **A factor, such as a flood, affects a population regardless of its**



A Species

B Food supply

C Age structure

D Density

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21 **Logistic growth levels off at carrying capacity, forming**

- **A** An S shaped curve
- **B** A J shaped curve only
- **C** A straight line only
- **D** No curve

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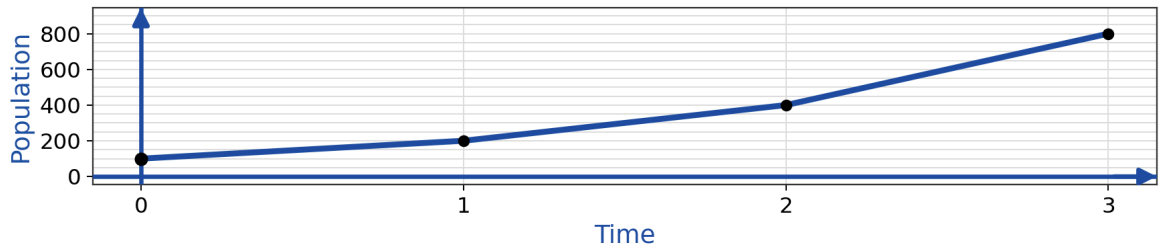
22 **The graph shows a population over time. The population at time 3 is how many times the population at time 1 ?**



- **A** 2
- **B** 3
- **C** 4
- **D** 8

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23 **Primary succession begins on bare rock or new land with no soil, starting with**

- **A** Climax trees
- **B** Large mammals
- **C** Pioneer species such as lichens
- **D** Deep soil

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24 **Secondary succession begins after a disturbance leaves soil intact, such as after a**

- **A** Volcanic island formation
- **B** New lava flow
- **C** Glacier retreat to rock
- **D** Forest fire

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25 **A climax community is a relatively stable community that forms at the**

A End of succession in an area

B Start of succession

C Middle of primary succession

D Time of disturbance

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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