CALIFORNIA BIOLOGY · UNIT 2 · 25 QUESTIONS

Ecosystems: Interactions, Energy, and Dynamics — 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 **A producer in an ecosystem is an organism that**

- **A** Makes its own food from sunlight or chemicals
- **B** Lives as a parasite
- **C** Eats other organisms
- **D** Decomposes dead matter only

Understand It with Pulse | Flag a mistake

2 **In a food chain, energy flows from**

A Producers to consumers

B Decomposers to producers

C Consumers to producers

D Top predators to producers

Understand It with Pulse | Flag a mistake

3 **Only about 10 percent of the energy at one trophic level is typically transferred to the next level because most energy is**

A Returned to the sun

B Destroyed

C Lost as heat and used for life processes

D Stored as new biomass

Understand It with Pulse | Flag a mistake

4 **A food web differs from a single food chain because a food web**

- A Flows in a circle
- B Has only one producer
- C Shows many interconnected feeding relationships
- D Has no decomposers

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5 **Decomposers are important in an ecosystem because they**

- A Produce oxygen only
- B Remove all consumers
- C Return nutrients from dead matter to the soil
- D Eat only living plants

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6 **If grass has 10000 units of energy, the energy typically available to the primary consumers is about**

A 10 units

B 1000 units

C 10000 units

D 100 units

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7 **Carrying capacity is the**

A Largest population an environment can support over time

B Number of species in an area

C Rate of population growth

D Amount of rainfall

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8

A population growing exponentially will increase

A By the same number each year

B Until it reaches zero

C By a larger number each year as the population grows

D Only when predators arrive

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9

Logistic growth levels off when a population approaches its

A Birth rate

B Carrying capacity

C Migration rate

D Death rate only

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10 **Competition between two species using the same limited resource is an example of a**

- **A** Abiotic factor
- **B** Mutualistic interaction
- **C** Succession stage
- **D** Biotic interaction that can limit both populations

Understand It with Pulse | Flag a mistake

11 **A predator prey relationship in which the predator benefits and the prey is harmed is an example of**

- **A** Mutualism
- **B** Competition
- **C** Commensalism
- **D** Predation

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12 **A bee pollinating a flower while gathering nectar is an example of**

- A Predation
- B Parasitism
- C Competition
- D Mutualism

Understand It with Pulse | Flag a mistake

13 **Primary succession begins on**

- A A forest after a fire
- B A lake bottom with soil
- C Bare rock with no soil
- D Abandoned farmland

Understand It with Pulse | Flag a mistake

14 **Biodiversity is a measure of the**

A Depth of soil

B Amount of sunlight

C Variety of species and genes in an area

D Number of individuals of one species

Understand It with Pulse | Flag a mistake

15 **The carbon cycle returns carbon dioxide to the atmosphere when organisms**

A Absorb minerals

B Respire and when organic matter decays or burns

C Photosynthesise

D Drink water

Understand It with Pulse | Flag a mistake

16 **Nitrogen fixing bacteria are important because they convert nitrogen gas into forms that**

A Plants can use

B Animals can breathe

C Water can dissolve only

D Rocks can store

Understand It with Pulse | Flag a mistake

17 **Eutrophication of a lake is often caused by excess nutrients, such as nitrates and phosphates, leading to algal blooms and then**

A More oxygen for fish

B Clearer water

C Oxygen depletion as algae decay

D Less plant growth

Understand It with Pulse | Flag a mistake

18 **An invasive species can harm native species mainly by**

- A Increasing biodiversity
- B Reducing the climate
- C Adding nutrients only
- D Outcompeting natives and lacking natural predators

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19 **Habitat fragmentation harms many species because it**

- A Stops all predation
- B Divides habitat into small isolated patches
- C Increases habitat size
- D Adds new species

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20 **A keystone species is one whose removal**

A Only affects its predators

B Increases biodiversity

C Has little effect

D Has a large effect on the community out of proportion to its abundance

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21 **In a pyramid of biomass, the producer level normally has**

A The least biomass

B No biomass

C The greatest biomass

D The same biomass as top predators

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22 **Climate change driven by increased greenhouse gases can alter ecosystems by shifting**

A Temperature and rainfall patterns that species depend on

B Ocean salinity only

C Only soil type

D The number of continents

Understand It with Pulse | Flag a mistake

23 **What does a limiting factor do to a population?**

A Always increases growth

B Limits population size, such as food, water, or space

C Has no effect on growth

D Only affects plants

Understand It with Pulse | Flag a mistake

24 **The water cycle includes evaporation, condensation, and**

A Precipitation

B Photosynthesis

C Decomposition

D Nitrogen fixation

Understand It with Pulse | Flag a mistake

25 **A forest has 5000 kilograms of producer biomass Using the 10 percent rule, the biomass typically supported at the second trophic level is about**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. A
3. C
4. C
5. C
6. B
7. A
8. C
9. B
10. D
11. D
12. D
13. C
14. C
15. B
16. A
17. C
18. D
19. B
20. D
21. C
22. A
23. B
24. A
25. 500

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