PENNSYLVANIA BIOLOGY · UNIT 4

Ecology and Ecosystems — Practice Test

Pennsylvania Biology • 25 questions

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 the living organisms in an area plus the**

- A Nonliving factors
- B Producers only
- C Predators only
- D Decomposers only

Understand It with Pulse | Flag a mistake

2 **A biotic factor in an ecosystem is a**

A Rock

B Living organism

C Temperature

D Rainfall

Understand It with Pulse | Flag a mistake

3 **An abiotic factor in an ecosystem is**

A A tree

B A bacterium

C Soil

D A deer

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

6 **An organism niche is its**

- A Address
- B Role in its ecosystem
- C Population size
- D Food source only

Understand It with Pulse | Flag a mistake

7 **Producers in most ecosystems make their own food by**

- A Eating animals
- B Decomposing waste
- C Photosynthesis
- D Hunting

Understand It with Pulse | Flag a mistake

8 **Decomposers help an ecosystem by**

A Making food from sunlight

B Eating live prey

C Hunting predators

D Breaking down dead matter

Understand It with Pulse | Flag a mistake

9 **In a food chain energy flows from**

A Consumers to producers

B Producers to consumers

C Decomposers to producers

D Predators to prey

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **Competition occurs when two organisms need the same**

A Predator

B Limited resource

C Offspring

D Climate

Understand It with Pulse | Flag a mistake

13 **In mutualism both species in the relationship**

A Benefit

B Are harmed

C Are unaffected

D Compete

Understand It with Pulse | Flag a mistake

14 **In commensalism one species benefits and the other species is**

- A Harmed
- B Also benefited
- C Unaffected
- D Eaten

Understand It with Pulse | Flag a mistake

15 **In parasitism the parasite benefits and the host is**

- A Unaffected
- B Also benefited
- C Harmed
- D Unchanged

Understand It with Pulse | Flag a mistake

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

A Day

B Week

C Long period

D Single season

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

18 **Primary succession begins on newly exposed rock or land with no**

A Sunlight

B Soil

C Air

D Water

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

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

- A No life
- B Soil
- C No water
- D No air

Understand It with Pulse | Flag a mistake

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

- A Respiration
- B Photosynthesis
- C Decomposition
- D Combustion

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

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

A Size

B Age

C Abundance

D Color

Understand It with Pulse | Flag a mistake

24 **The deciduous forests of Pennsylvania are an example of a**

- **A** Forest ecosystem
- **B** Desert ecosystem
- **C** Tundra ecosystem
- **D** Grassland ecosystem

Understand It with Pulse | Flag a mistake

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

ANSWER _____

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. 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. A
25. 20

© 2026 Brett Robbins. All Rights Reserved.