

AP Environmental Science: Unit – 1 - The Living World: Biodiversity Practice Test

Question 1

In an experiment, two groups of paramecium species are grown together in a contained environment. *P. aurelia* continued to grow well after 18 days, while *P. caudatum* declined to extinction over the course of 18 days. This result demonstrates which of the following?

- A. Symbiotic relationship
- B. Competition
- C. Predation
- D. Competitive exclusion principle
- E. Resource partitioning

Question 2

**Which of the following factors does NOT affect species richness?**

- A. Latitude
- B. Survivorship curves
- C. Time
- D. Habitat size
- E. Distance from other communities

Question 3

Which of the following tree species is a pioneer species in North American forests?

- A. Beech
- B. Fir
- C. Aspen
- D. Maple
- E. Oak

Question 4

Which of the following statements represents the intrinsic value of an ecosystem?

- A. Ecosystems provide useful goods, such as lumber and crops
- B. Ecosystems help regulate environmental conditions
- C. Ecosystems are beautiful

- D. Ecosystems provide ingredients for medicine
- E. Ecosystems are inherently valuable

#### Question 5

Which of the following is the measurement used by ecologists to determine the biodiversity of a particular area?

- A. Species richness
- B. Species evenness
- C. Genetic diversity
- D. Ecosystem diversity
- E. Species diversity

#### Question 6

Which evolutionary process takes place when disturbance causes a dramatic decrease in the population size, causing the genetic composition of the survivors to substantially differ from the original group?

- A. Mutation
- B. Genetic drift
- C. Founder effect
- D. Immigration
- E. Bottleneck effect

#### Question 7

Which of the following factors allows organisms to have a greater chance of adapting to environmental changes?

- A. Rapidly changing environments
- B. Low genetic diversity
- C. Small population size
- D. Long generation time
- E. All the factors favor natural selection

#### Question 8

**What part of the United States gets the most acid rain?**

- A. Northeast
- B. Northeast
- C. Georgia
- D. Georgia

Question 9

**Acid Rain has multiple negative effects on the environment, but what does it do that effects our clean air?**

- A. Creates erosion
- B. Melts Statues
- C. Kills plants
- D. Harm animals

Question 10

**How does air pollution move during thermal inversion?**

- A. Thermal inversion makes pollution very still
- B. Pollution travels very fast in cold air
- C. There is no pollution during thermal inversion

Question 11

**Biodiversity, aka biological diversity, usually refers to**

- A. the same species in a general location
- B. the number of different species in a given area
- C. the number of animal species in a given area
- D. the number of plant species in a given area

Question 12

**Species that are clearly critical to the functioning of an ecosystem are known as**

- A. biodiversity
- B. keystone species
- C. main species
- D. native species

Question 13

**A species that is likely to become extinct if protective measures are not taken immediately is known as**

- A. threatened species
- B. endemic species
- C. keystone species
- D. endangered species

Question 14

**An exotic species is**

- A. a species that is not native to a particular region
- B. a newly discovered species in a particular region
- C. a genetically modified species in a particular region
- D. a species that is native to a particular region

Question 15

**Succession that occurs in areas that previously didn't support life, such as on rocks or ice**

- A. tangential succession

- B. primary succession
- C. secondary succession
- D. quaternary succession

Question 16

**How many species are estimated to be living on Earth?**

- A. between 10,000 and 100,000
- B. between 1 and 2 million
- C. between 500,000 and 1 million
- D. between 10 and 50 million

Question 17

**Currently sharks are on a rapid decline due to overfishing. If sharks go extinct will this affect the biodiversity of the ocean?**

- A. No, sharks are not important.
- B. No, sharks will only affect the seal populations.
- C. Yes, it will disrupt the entire food chain in the ocean.
- D. Yes, but only a little.

Question 18

**Which of the following describes the importance of biodiversity to an ecosystem?**

- A. People like to be able to see all the different plants and animals

- B. If there aren't all the different species, there will be resources that aren't being used
- C. Biodiversity is not as important as many people think
- D. Biodiversity can help minimize the effects of losing a species.

Question 19

**What affect will continued rise in global temperature most likely have on worldwide biodiversity?**

- A. It will have no effect as there is plenty of time for organisms to adapt
- B. It will increase due to warmer temperatures
- C. It will increase due to greater plant production from more CO<sub>2</sub>
- D. It will decrease due to massive habitat destruction

Answer Key

- 1. D
- 2. B
- 3. C
- 4. E
- 5. A
- 6. E
- 7. C
- 8. A
- 9. C
- 10.A
- 11.B
- 12.B
- 13.D
- 14.A
- 15.B
- 16.D
- 17.C
- 18.D
- 19.D

