

AP Environmental Science: Unit – 5 - Land and Water Use Practice Test

Question 1

Which of the following is a disadvantage of mono-cropping?

- I. Soil depletion
  - II. Large expanses of land can be planted and then harvested
  - III. Crops are more vulnerable to attacks by pests
- A. I only
  - B. II only
  - C. I and II only
  - D. I and III only
  - E. I, II, and III

Question 2

Which of the following is NOT a major cause of urban sprawl in the United States?

- A. Automobiles and highway construction
- B. Living costs
- C. Smart growth
- D. Urban blight
- E. Government policies

Question 3

The federal government regulation passed in 1969 that requires an environmental assessment of all projects involving federal money or federal permits is known as the

- A. National Environmental Policy Act
- B. Resource Conservation and Recovery Act
- C. Comprehensive Environmental Response, Compensation, and Liability Act
- D. Clean Air Act
- E. Endangered Species Act

#### Question 4

What is bycatch?

- A. An environmental problem caused by increased pesticide use.
- B. Raising fish commercially in tanks or enclosures, usually for food.
- C. Unwanted fish and other marine creatures caught during commercial fishing for a different species.
- D. A common side effect of genetic engineering.
- E. An industrial fishing method where a large net with heavy weights is dragged across the seafloor, scooping up everything in its path.

#### Question 5

The phenomenon of urban blight has contributed to which of the following?

- I. Degradation of the buildings and social environment of the city
  - II. Migration to the suburbs
  - III. Racial segregation
- A. I only
  - B. II only
  - C. I and II only
  - D. I and III only
  - E. I, II, and III

#### Question 6

Which of the following is NOT an effective water conservation technique?

- A. Using low flush toilets.
- B. Xeriscaping.
- C. Using showerheads that limit water flow to 4.5 gallons per minute.
- D. Mulching around trees and plants.
- E. Public outreach campaigns.

### Question 7

The mining of stream bed deposits for minerals is known as

- A. Strip mining
- B. Open-pit mining
- C. Mountaintop removal
- D. Placer mining
- E. Subsurface mining

### Question 8

The 2003 the United Nations List of Protected Areas created six categories of protected public lands. Which classification allows biological, mineral and recreational resources to be used sustainably?

- A. National Parks
- B. Managed Resource Protected Areas
- C. Habitat/Species Management Areas
- D. Protected Landscapes and Seascapes
- E. National Monuments

### Question 9

Which of the following is a benefit of contour farming?

- A. Allows vegetation of different heights to act as windbreaks and catch soil that might otherwise blow away
- B. Prevents the same nutrients from being removed from the soil year after year
- C. Conserves soil and prevents erosion
- D. Reduces carbon dioxide emissions
- E. Minimizes the use of pesticides

### Question 10

Which of the following is a benefit of genetic engineering?

- A. Genetic engineering decreases the likelihood of a allergic reaction to a specific type of food
- B. The favorable genes in the genetically modified organism will spread to wild varieties and increase their ability to resist disease
- C. Genetically modified organisms are healthier because their genes have been selected to make the crop more nutritious for humans
- D. Genetically modified organisms taste better
- E. Genetically modified organisms need less pesticides because the plants have been developed to resist pests

Question 11

Which of the following timber harvesting methods involves cutting and removing only the largest and best trees?

- A. Clear-cutting
- B. High grading
- C. Seed-tree cutting
- D. Selective cutting
- E. Shelterwood cutting

Question 12

**One way a local community might regulate a shared and limited resource and reduce the tragedy of the commons is to**

- A. eliminate ownership of the resources and make them available to all
- B. divide the resources into parcels and assign them to individuals
- C. offer subsidies to users of the resources in the form of tax breaks
- D. reduce the cost of access to the resources

Question 13

**Which of the following environmental effects would most likely result from the clear-cutting of boreal forests by industrial logging operations?**

- A. There will be an increase in atmospheric oxygen concentration, which will improve air quality.
- B. There will be an increase in farming on the cleared areas of land, which will reduce incidences of flooding.
- C. There will be an increase in atmospheric carbon dioxide concentration, which will contribute to climate change.
- D. There will be a decrease in the temperature of soil and nearby bodies of water, which will increase biodiversity.

Question 14

**Which of the following would decrease with the manufacture, application, and use of synthetic fertilizers rather than organic fertilizers?**

- A. Recycling of organic matter
- B. Groundwater pollution
- C. Cultural eutrophication
- D. Use of fossil fuels

Question 15

**Which of the following describes an unintended consequence that results from large-scale agricultural use of water from an aquifer?**

- A. The water table level rises too high, leading to excessive flooding.
- B. Much of the water becomes too salty for human consumption because of saltwater intrusion.
- C. Agricultural areas contribute to increased carbon dioxide in the atmosphere, leading to global climate change.
- D. The rate of water use likely exceeds the rate of recharge, leading to lowering the water table.

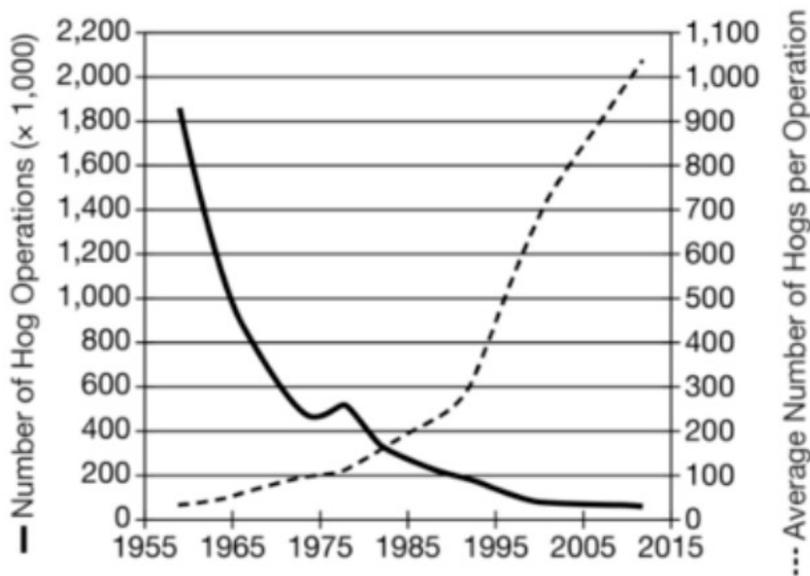
Question 16

**Which of the following best describes the advantages and disadvantages of drip irrigation?**

- A. This method most efficiently delivers water directly to plant roots compared with other methods, and wastes less water, but it may be too costly for farmers in developing countries to use.
- B. This method is suitable for a range of topographies and is easy to operate, but it requires a high initial investment in machinery.
- C. This method delivers water to the field by pipes and water flows directly over the soil, but there is a large amount of runoff.
- D. This method delivers water to the field by pipes and water flows directly over the soil, but there is a large amount of runoff.

Question 17

**Which of the following methods of meat production would provide the most likely explanation for the information represented in the graph above?**



- A. Individual transferable quotas
- B. Concentrated animal feeding operations
- C. Free-range grazing
- D. Organic meat production

Question 18

**Which of the following is a direct economic advantage associated with aquaculture?**

- A. Aquaculture reduces the number of fishing operations in an area.
- B. Aquaculture produces large amounts of seafood for human purchase and consumption year-round.
- C. Aquaculture breeds genetically modified fish to increase the amount of biodiversity in the population.
- D. Aquaculture requires large bodies of water for its operations.

Question 19

**Environmentalists oppose the mining of Antarctic mineral resources because**

- A. territorial claims to Antarctica are unresolved
- B. the Antarctic environment is fragile and extremely vulnerable to the disturbances that would accompany development
- C. currently known world reserves of important metals and oils are considered inexhaustible
- D. the existence of valuable mineral deposits in the Antarctic environment is unlikely

Answer Key

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