

AP Environmental Science: Unit – 8 - Aquatic and Terrestrial Pollution Practice Test

Question 1

Consumption of which hazardous material is known to affect the thyroid gland?

- A. Lead
- B. DDT
- C. Mercury
- D. Perchlorates
- E. PCBs

Question 2

The legislation that sets the national standards for safe drinking water is known as the

- A. Clean Water Act
- B. Safe Drinking Water Act
- C. Resource Conservation and Recovery Act
- D. Federal Water Pollution Control Act
- E. Water Quality Act

Question 3

**Which type of pollution is most likely to be present at a coal mining site in rural Virginia?**

- A. Light pollution
- B. Air pollution
- C. Thermal pollution
- D. Water pollution
- E. Radiation

Question 4

**Transit Company A and Waste Company B were contracted to transport and store hazardous industrial waste products and it was found that their holding tanks were corroded and leaking hazardous contents. The disposal site is designated a superfund site and will require federal funding for environmental cleanup. Under which articles of federal legislation could this company be held financially liable for the cost of cleanup?**

- A. ESA (Endangered Species Act)
- B. CWA (Clean Water Act)
- C. FIFRA (Federal Insecticide Fungicide and Rodenticide Act)
- D. CERCLA (Comprehensive Environmental Response Compensation and Liability Act)
- E. RCRA (Resource Conservation and Recovery Act)

Question 5

**Which of the following is least likely to be a dangerous consequence of leachate from a sanitary landfill?**

- A. The leachate can leak into nearby soils
- B. The leachate can be classified as toxic waste and have to be treated accordingly
- C. The leachate can be at a high temperature
- D. The leachate can contain toxic metal compounds
- E. The leachate can leak into groundwater

Question 6

**Eutrophication is due to an excess of what nutrients?**

- A. Carbon and Oxygen
- B. Phosphorus and Sulfur
- C. Nitrogen and Phosphorus
- D. Nitrogen and Carbon

Question 7

**Which of the following is the most controversial method for oil spill cleanup?**

- A. Contain the spill using booms, and collect the oil from the surface of the water using skimmers
- B. Use chemical dispersants to break down the oil
- C. Add biological agents to the spill
- D. Let the oil breakdown naturally
- E. Vacuum and centrifuge

Question 8

The process of recycling a product into the same product is known as:

- A. solid waste recycling
- B. open-loop recycling
- C. closed-loop recycling
- D. recombinant recycling
- E. reuse recycling

Question 9

**One of the big contributors to water pollution in the Great Lakes is eutrophication. Which of the following is least likely to cause eutrophication?**

- A. Agricultural runoff
- B. Lawn fertilizers
- C. Stormwater runoff
- D. Wetland habitat

Question 10

**Many times eutrophication creates dead zones or hypoxic zones in bodies of water. The most famous dead zone in North America occurs where the Mississippi River outflows into the Gulf of Mexico. What important resource do dead zones not have?**

- A. Carbon dioxide
- B. Nitrogen
- C. Oxygen
- D. Potassium

Question 11

**Pollution is one of the major environmental issues affecting humans today. Urbanization has created the heat island effect. What type of pollution are heat islands?**

- A. Chemical pollution
- B. Noise pollution
- C. Water pollution
- D. Thermal pollution

Question 12

Electronic waste such as cathode ray tube televisions and computer monitors may contain this toxic metal.

- A. Cadmium
- B. Aluminum
- C. Copper
- D. Titanium
- E. Silicon

Question 13

Which Act is the principal federal law governing the disposal of solid waste and hazardous waste?

- A. Resource Conservation and Recovery Act
- B. Superfund Amendments and Reauthorization Act
- C. Toxic Substances Control Act
- D. Occupational Safety and Health Act
- E. National Environmental Policy Act

Question 14

The increasing concentration of a toxic substance in the tissues of organisms at successively higher levels of the food chain is known as

- A. Biomagnification
- B. Bioaccumulation
- C. Biodilution
- D. Bioconcentration
- E. Biocide

Question 15

Which of the following is considered a point source of water pollution?

- A. Sewage treatment plant discharging wastewater from a pipe into the ocean
- B. Erosion from agricultural areas
- C. Storm runoff from parking lots
- D. Fertilizers from a golf course
- E. Excessive use of insecticides from a timber stand

Question 16

Which of the following sources of hazardous substances contaminates water when drinking water passes through pipes in older homes and can potentially damage the nervous system and kidneys?

- A. Arsenic
- B. Lead
- C. Mercury
- D. Acid deposition
- E. Synthetic Organic Compounds

Question 17

**Tim is the Director of U.S. Operations atop a multinational oil and petroleum company, Company X. The United States refining facility is producing a liquid by-product and Tim has made the executive decision to dispose of the waste product in the river that runs alongside the facility. To abide by federal law, Company X will need to apply for a discharge permit through the National Pollutant Discharge Elimination System (NPDES). Which specific federal law imposes the permitting system for point-source discharge of pollutants into "navigable waters"?**

- A. CWA (Clean Water Act)
- B. CERCLA (Comprehensive Environmental Response Compensation and Liability Act)
- C. ESA (Endangered Species Act)
- D. RCRA (Resource Conservation and Recovery Act)
- E. NEPA (National Environmental Policy Act)

Question 18

**Small fish eating bacteria and phytoplankton, which both contain relatively high levels of mercury, is an example of:**

- A. phytoextraction
- B. phytoremediation

- C. bioaccumulation
- D. bioremediation
- E. biomagnification

Question 19

During the process of sewage treatment, which stage removes large objects, such as leaves, diapers, tampons, and wet-wipes?

- A. Pretreatment
- B. Primary Treatment
- C. Secondary Treatment
- D. Tertiary Treatment
- E. Autolysis

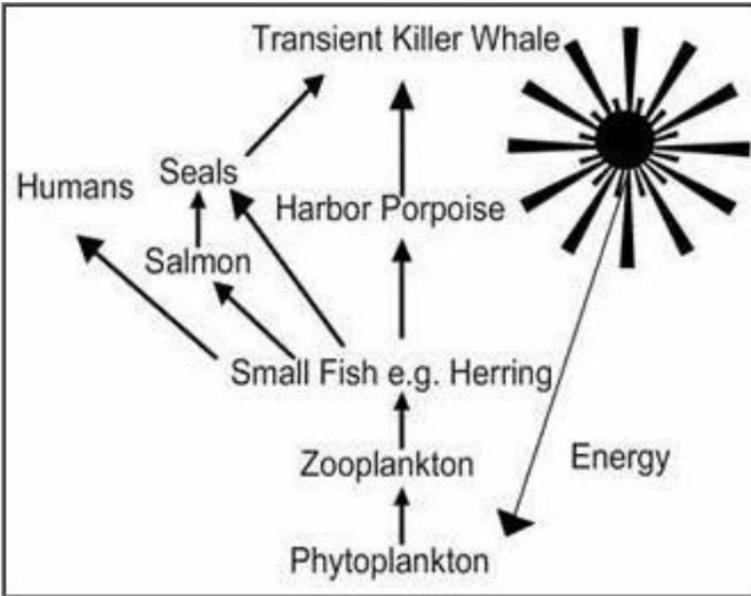
Question 20

**Fishermen have harvested certain fish to the point where the population of that fish is decreasing. This level of direct harvesting could cause**

- A. ecosystems to be improved for future generations
- B. ecosystems to be severely damaged
- C. the restoration of environmental stability
- D. all other fish species to increase in number

Question 21

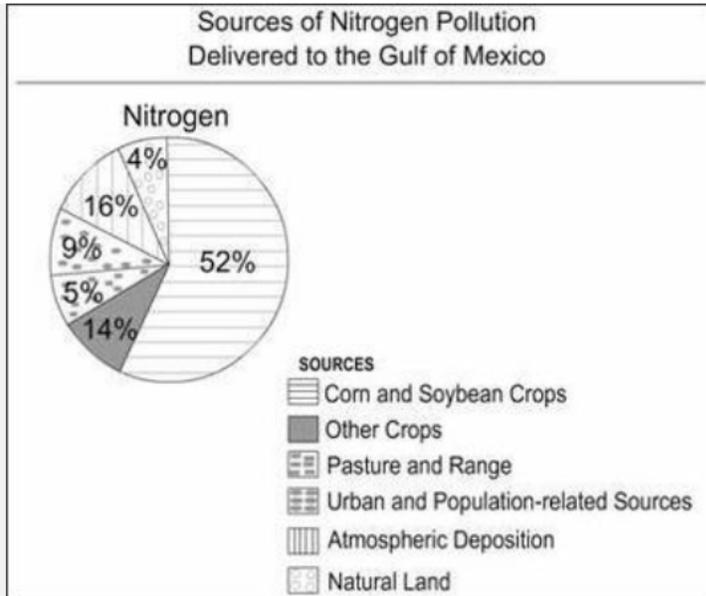
**The diagram below shows the relationship between some of the organisms in a marine food web. Which of the following is MOST LIKELY to happen if a large number of phytoplankton are killed from runoff entering the ocean?**



- A. The number of porpoises would probably stay the same because porpoises are far removed from phytoplankton in the food web.
- B. The number of zooplankton would probably increase because they wouldn't have to compete with phytoplankton for food.
- C. The number of salmon would probably decrease because there would be less food available for zooplankton and herring.
- D. The Sun would probably not emit as much energy because there would not be as many phytoplankton in the ocean.

Question 22

**This graph shows the sources of the nitrogen entering the Gulf of Mexico as pollution. What is one conclusion you can make based on the information in the graph?**



- A. Nitrogen that comes from the atmosphere is more harmful than nitrogen that comes from crops.
- B. Most nitrogen pollution found in the Gulf of Mexico comes from farming crops.
- C. Corn and soybeans are the only crops associated with nitrogen pollution.
- D. Nitrogen is not a problem in the Gulf of Mexico.

Question 23

**The tall wetland plant, purple loosestrife, was brought from Europe to the United States in the early 1800s as a garden plant. The plant's growth is now so widespread across the United States that it is crowding out a number of native plants. This situation is an example of**

- A. an unintended effect of adding a species to an ecosystem
- B. the results of the use of pesticides
- C. the recycling of nutrients
- D. the flow of energy present in all ecosystems

Answer Key

- 1. D
- 2. B
- 3. D

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