

Question 1

- A blackout like the eight-state blackout of 2003 could be prevented by
- A) using energy efficient lights in most businesses.
 - B) a self-healing smart electrical grid.
 - C) switching from coal to natural gas for electrical generation.
 - D) greater use of electricity during the work week instead of weekends.

Answer: <https://biology-forums.com/index.php?topic=259153>

Question 2

- A city is considering the location of its next landfill. According to EPA requirements for new landfills, the city should consider
- A) a region near an airport.
 - B) a region prone to earthquakes.
 - C) a low swampy region near a river.
 - D) an elevated region above the water table.

Answer: <https://biology-forums.com/index.php?topic=257094>

Question 3

- A cost-benefit analysis of the acid rain prevention programs shows that
- A) there was no net economic benefit.
 - B) there was a large benefit and savings compared to costs.
 - C) there was a large loss because costs far outweighed benefits
 - D) with vastly increased spending, the program could show a net benefit.

Answer: <https://biology-forums.com/index.php?topic=256875>

Question 4

- A country that has undergone a full demographic transition has
- A) a lower birth rate and a higher death rate.
 - B) a higher birth rate and a lower death rate.
 - C) a higher birth rate and a lower death rate, and is about to undergo industrialization.
 - D) a lower birth rate, a lower death rate, and undergone industrialization.

Answer: <https://biology-forums.com/index.php?topic=258683>

Question 5

- A country with a declining fertility rate below 2.0
- A) will be graying.
 - B) will have a population declining in size.
 - C) is increasingly common in highly developed nations.
 - D) All of the above.

Answer: <https://biology-forums.com/index.php?topic=258676>

Question 6

- A declining dependency ratio
- A) requires immediate and permanent increased spending on education and old-age medical expenses.
 - B) requires increased spending on education but decreased costs associated with old-age medical expenses.
 - C) requires permanently decreased spending on education but temporarily increased costs associated with old-age medical expenses.
 - D) permits temporarily decreased spending on education and old-age medical expenses.

Answer: <https://biology-forums.com/index.php?topic=258705>

Question 7

- A disproportionately high placement of toxic waste sites in regions of the United States populated by minorities presents an issue of
- A) urban "smart growth."
 - B) environmental racism.
 - C) sustainable development.
 - D) a demographic transition.

Answer: <https://biology-forums.com/index.php?topic=258043>

Question 8

- A farm field that has used only inorganic fertilizer for the past 20 years is most likely to have

- A) fewer soil organisms and less soil structure but increased nutrient holding capacity.
- B) fewer soil organisms, less soil structure, and decreased nutrient holding capacity.
- C) more soil organisms, more soil structure, and increased nutrient holding capacity.
- D) more soil organisms, less soil structure, and decreased nutrient holding capacity.

Answer: <https://biology-forums.com/index.php?topic=258929>

Question 9

A farmer extending his farm field bulldozes the banks of a creek, greatly disturbing the creek bed and stirring up clay and humus. The higher levels of clay and humus in the water just downstream will most likely result in

- A) fewer plants, fewer fish, and cloudy water.
- B) more plants but fewer fish and cloudy water.
- C) more plants and more fish but cloudy water.
- D) more plants and more fish and clearer water.

Answer: <https://biology-forums.com/index.php?topic=256951>

Question 10

A form of a biome is largely predicted by its

- A) diversity of plant and animal species.
- B) diversity of soil microorganisms.
- C) temperature and rainfall.
- D) distance from the ocean.

Answer: <https://biology-forums.com/index.php?topic=258153>

Question 11

A foundation wishes to promote sustainable agriculture and organic farming. A consultant suggests that the foundation may want to give money to researchers investigating ecological control of pests. As the foundation reviews grant proposals, they should give the most money to researchers wanting to learn more about

- A) the natural relationships between pests, their host plants, and the general environment.
- B) the specific nutritional requirements of the desired crops.
- C) differences between persistent and nonpersistent pesticides previously used in the region.
- D) biomagnification of pesticides used to control the pests.

Answer: <https://biology-forums.com/index.php?topic=259091>

Question 12

A friend suggests that the use of corn for ethanol production is causing a rise in corn prices and corn shortages that essentially starve children to fuel American cars. Wondering if that might really be true, you investigate and learn something that suggests this relationship is not true. You find out that

- A) most of the money saved by using ethanol is used by charitable organizations that feed the poor.
- B) the process of making ethanol also produces antibiotics to help prevent human diseases.
- C) although corn prices have risen, much more corn is now being planted and the prices of other crops have risen more than corn.
- D) ethanol production uses part of corn not used to feed either animals or humans.

Answer: <https://biology-forums.com/index.php?topic=258977>

Question 13

A friend who was raised in a Chicago suburb was describing what her life was like growing up. Then she said something very surprising and unexpected. She said that in her suburban town,

- A) everybody kept complaining about the rising price of gasoline.
- B) she saw very little wildlife except a few squirrels and common birds.
- C) just about everybody bought locally raised vegetables at the farmer's market.
- D) most of the people she knew had never seen a farm.

Answer: <https://biology-forums.com/index.php?topic=257415>

Question 14

A garden is suffering from a quickly growing mold. The most effective treatment for this problem would be the application of

- A) an herbicide.
- B) a fungicide.
- C) a pesticide.
- D) a rodenticide.

Answer: <https://biology-forums.com/index.php?topic=259051>

Question 15

A gardener applied heavy doses of the same insecticide to her garden for two consecutive years to kill squash bugs. During the third year, although the squash bugs were reduced, the woman called in an expert to explain why she had an abundance of new pests that were destroying her garden. The expert explained that the abundant new pests were largely due to her previous use of an insecticide in a phenomenon known as

- A) pesticide resistance.
- B) secondary-pest outbreak.
- C) triennial pest emergence.
- D) bounce back resurgence.

Answer: <https://biology-forums.com/index.php?topic=259062>

Question 16

A grasshopper population in a prairie is limited in large part by the number of birds in the region. Following a terrible storm that killed many of the birds, the grasshopper population exhibits exponential growth. This happens because the grasshoppers experienced

- A) a new biotic potential with steady environmental resistance.
- B) a new much lower biotic potential with decreased environmental resistance.
- C) a steady biotic potential but suddenly decreased environmental resistance.
- D) a decreased biotic potential and decreased environmental resistance.

Answer: <https://biology-forums.com/index.php?topic=258250>

Question 17

A group of frogs in a rain forest represents a population if the frogs

- A) live in the same region and can potentially reproduce with each other.
- B) look similar to each other and seem to be well adapted to the same region.
- C) are preyed upon by the same group of predators and seem to be camouflaged.
- D) live in the same region and feed on about the same types of food.

Answer: <https://biology-forums.com/index.php?topic=258230>

Question 18

A growing cooperative approach to manage larger ecosystems is building on the combined efforts of

- A) national, state, and local government agencies.
- B) government agencies, environmental groups, and private individuals.
- C) men, women, and children.
- D) governments and private businesses.

Answer: <https://biology-forums.com/index.php?topic=258593>

Question 19

A home is buried in soil such that only the south facing side of the home, with many large windows, is exposed to the outside. Such construction of a home in Oklahoma is benefiting from

- A) biomass heating and geothermal cooling.
- B) active geothermal heating and cooling.
- C) solar heating and geothermal cooling.
- D) passive solar and active biomass energy.

Answer: <https://biology-forums.com/index.php?topic=259330>

Question 20

A home located about 500 feet from an abandoned landfill explodes in a giant ball of flames. This is a mystery, as the home only uses electricity for cooking and heating the home. Most likely, this disaster was caused by

- A) groundwater contamination from the landfill into the home.
- B) biogas that seeped from the landfill along horizontal cracks and into the home.
- C) gasoline or other flammable substances that leached from the landfill into the home.
- D) corrosives that leached from the landfill into the home and degraded the home's electrical wires.

Answer: <https://biology-forums.com/index.php?topic=257088>