

### Question 1

Which of the following statements about fission or fusion is true?

- A) Fission begins with one reactant and yields two atomic products and a release of energy.
- B) Fission begins with two reactants and yields one atomic product and a release of energy.
- C) Fusion combines three reactants and yields one atomic product and a release of energy.
- D) Fusion begins with one reactant and yields two atomic products and a release of energy.

Answer: <https://biology-forums.com/index.php?topic=1888065>

### Question 2

A farmer is tired of watching crops die in the field from several pest species. She decides that next year she is going to use every type of ecological pest control she can find to address the problem. Over the winter she gets ready, ordering pheromones that interfere with the reproduction of the pests, sterile male flies that will try to reproduce with some of the pest flies, and wasps that lay their eggs in the larvae of another pest. It is expensive, but she thinks this should work well. Which of the following forms of control is she not using?

- A) Natural enemies control
- B) Cultural control
- C) Genetic control
- D) Natural chemical control

Answer: <https://biology-forums.com/index.php?topic=1888030>

### Question 3

Economically disadvantaged people interested in starting a small business in a developing country are most helped by

- A) insurance brokers who reassure the bank that the new business does not pose a credit risk.
- B) banks that provide large loans that permit the new business to establish a solid foundation.
- C) the involvement of women in the new business due to their reputation as good workers.
- D) the availability of microloans from a new kind of bank.

Answer: <https://biology-forums.com/index.php?topic=1887939>

### Question 4

Shadow pricing could be used to estimate the

- A) deterioration and replacement costs of materials.
- B) reduced cost of providing health care.
- C) cost of cleaning up an oil spill.
- D) value of an endangered species of plant.

Answer: <https://biology-forums.com/index.php?topic=1887785>

### Question 5

Atlantic ctenophores in the Sea of Azov and the kudzu vine overgrowing a forest in southern Alabama

- A) have become invasive species that threaten native species in their new environments.
- B) have become naturalized and live in equilibrium with native species.
- C) demonstrate how species can rapidly spread to new environments on their own.
- D) have small populations that probably will not survive more than a year or two.

Answer: <https://biology-forums.com/index.php?topic=1887828>

### Question 6

In the Appalachian Mountains, several species of salamanders live in or near a stream. The largest species lives in the stream and along its edges, a smaller species lives on land within a meter or two of the stream, and a smaller species lives about 3 to 5 meters away from the stream. In this region, these three salamander species are using

- A) different niches within the same habitat.
- B) the same niche and microhabitat.
- C) the same landscape but different ecosystems.
- D) the same set of limiting resources.

Answer: <https://biology-forums.com/index.php?topic=1887797>

### Question 7

If current growth projections are accurate, the human population of the planet in 2050 will be about

- A) 8 billion.
- B) 20 billion.
- C) 15 billion.
- D) 9 billion.

Answer: <https://biology-forums.com/index.php?topic=1887733>

### Question 8

- A positive effect of water seeping through a landfill is that it
- A) stops the production of biogas.
  - B) promotes the decomposition of paper and other biodegradable organics.
  - C) helps petroleum-based plastics decompose.
  - D) reduces the amount of groundwater contamination.

Answer: <https://biology-forums.com/index.php?topic=1888242>

### Question 9

Which of the following lists the four sequential steps of risk assessment by the EPA in the correct order?

- A) Exposure determination, dose-response determination, hazard control, and risk identification
- B) Risk identification, hazard characterization, dose-response determination, and exposure control
- C) Hazard assessment, dose-response assessment, exposure assessment, and risk characterization
- D) Risk characterization, exposure assessment, dose-response assessment, and hazard assessment

Answer: <https://biology-forums.com/index.php?topic=1888143>

### Question 10

As of 2015, in the United States about 6.6% of electrical power came from

- A) burning biomass.
- B) hydropower.
- C) solar energy.
- D) wind.

Answer: <https://biology-forums.com/index.php?topic=1888078>

### Question 11

In the healthy environment of a sustainable soil,

- A) the levels of humus steadily decline, but the aeration increases.
- B) sandy or silty soils are steadily converted to clay soils.
- C) abundant populations of bacteria are steadily replaced by mycorrhizae.
- D) the humus-forming processes of topsoil is renewed by the addition of detritus and humus.

Answer: <https://biology-forums.com/index.php?topic=1887982>

### Question 12

In our world, a mass with high heat capacity is able to

- A) evaporate the most water from its surface.
- B) retain its heat the longest.
- C) insulate the best.
- D) reflect the greatest amount of sunshine.

Answer: <https://biology-forums.com/index.php?topic=1888156>

### Question 13

Which of the following best describes natural laws?

- A) They are assumed by scientists to operate in the same way throughout the universe.
- B) They have gradually and spontaneously changed over long periods of time.
- C) They have been changed several times as the result of experimental data.
- D) They apply to matter but not to energy.

Answer: <https://biology-forums.com/index.php?topic=1887757>

### Question 14

A large water fountain will be placed in the middle of a small, shallow pond that is showing signs of cultural eutrophication. In the water fountain will

- A) kill most of the algae in the pond.
- B) encourage the growth of submerged vegetation.
- C) increase the oxygen levels of the pond.
- D) remove nutrients from the pond.

Answer: <https://biology-forums.com/index.php?topic=1888230>

### Question 15

Which one of the following contributes most to global climate change?

- A) Planting forests to grow wood for lumber and paper pulp
- B) The use of natural gas to heat homes
- C) The generation of electricity from nuclear fuel
- D) Eating a vegetarian diet

Answer: <https://biology-forums.com/index.php?topic=1887844>

### Question 16

Despite the loss of grasses in African savannahs resulting from competition from the invasive Sodom apple, elephants may help restore savannah communities because

- A) their dung helps fertilize savannah plants.
- B) they no longer feed on savannah grasses.
- C) they eat the Sodom apple preferentially, which is toxic to most other species.
- D) they uproot Sodom apples as they seek the grasses they prefer.

Answer: <https://biology-forums.com/index.php?topic=1887809>

### Question 17

The difference between a plug-in hybrid and an electric car is that the plug-in hybrid

- A) will not operate unless continuously connected to an AC electrical source.
- B) uses less carbon-based fuel than an electric car.
- C) still uses an engine and needs fuel whereas the electric car runs entirely on its battery.
- D) has a small battery and will run only 25% as far as an electric car.

Answer: <https://biology-forums.com/index.php?topic=1888182>

### Question 18

The fact that every organism in a biological community has a distinctly separate niche is largely the result of

- A) abiotic factors: soil chemistry, temperature, and moisture.
- B) competition among many species for limited resources.
- C) seasonal climate changes.
- D) the fact that nearly all species live at the limits of their tolerance boundaries.

Answer: <https://biology-forums.com/index.php?topic=1887798>

### Question 19

During periods when oil prices are high when gasoline prices skyrocket, hybrid vehicle sales will be expected to

- A) decrease, while more people use public transportation.
- B) increase, while fewer people use public transportation.
- C) decrease, while fewer people use public transportation.
- D) increase, while more people use public transportation.

Answer: <https://biology-forums.com/index.php?topic=1888184>

### Question 20

The lesson learned from the Czech Republic's White Carpathian grasslands is

- A) restoration efforts are compatible with cattle ranching.
- B) restoration of degraded grasslands by conservation and reseeding programs.
- C) a limited introduction of non-native species can speed restoration.
- D) plant species, not animal species, recover well in the restoration program.

Answer: <https://biology-forums.com/index.php?topic=1887894>