Intro Multiple Choice Mix It Up

Name: _____ **Date:** _____

1. Which practice would most likely deplete a nonrenewable natural resource?

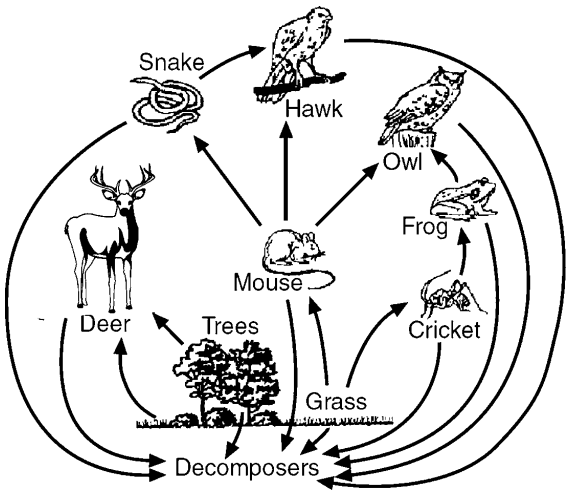
   A. harvesting trees on a tree farm

   B. burning coal to generate electricity in a power plant

   C. restricting water usage during a period of water shortage

   D. building a dam and a power plant to use water to generate electricity

2. Base your answer(s) to the following question(s) on the food web shown and on your knowledge of biology.



   A pesticide is sprayed to kill the crickets. State one effect this spraying might have on the food web.

3. Deforestation of areas considered to be rich sources of genetic material could limit future agricultural and medical advances due to

   A. the improved quality of the atmosphere

   B. the maintenance of dynamic equilibrium

   C. an increase in the rate of evolutionary change

   D. the loss of biodiversity

4. One reason why people should be aware of the impact of their actions on the environment is that

   A. ecosystems are never able to recover once they have been adversely affected

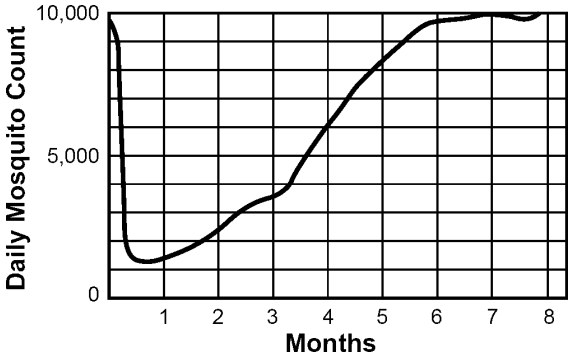
   B. the depletion of finite resources cannot be reversed

   C. there is a decreased need for new technology

   D. there is a decreased need for substances produced by natural processes

5. Base your answer(s) to the following question(s) on the provided information and graph and on your knowledge of biology.

   A small community that is heavily infested with mosquitoes was sprayed weekly with the insecticide DDT for several months. Daily counts provideing information on mosquito population size are represented in the graph.



   What is the most probable reason for the decreased effectiveness of the DDT?

   A. DDT caused mutations in the mosquitoes, which resulted in immunity.

   B. DDT was only sprayed once.

   C. Mosquitoes resistant to DDT lived and produced offspring.

   D. DDT chemically reacted with the DNA of the mosquitoes.

6. In order to reduce consumption of nonrenewable resources, humans could

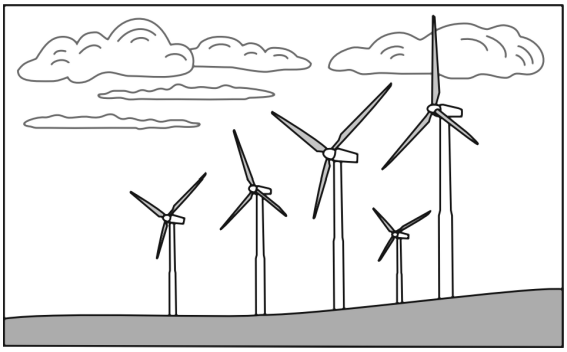
A. burn coal to heat houses instead of using oil

B. heat household water with solar radiation

C. increase industrialization

D. use a natural-gas grill to barbecue instead of using charcoal

7. A ski resort installed a wind turbine similar to those represented below to supply some of its energy needs.



This turbine was most likely installed because wind power is

A. renewable and does substantial damage to the atmosphere

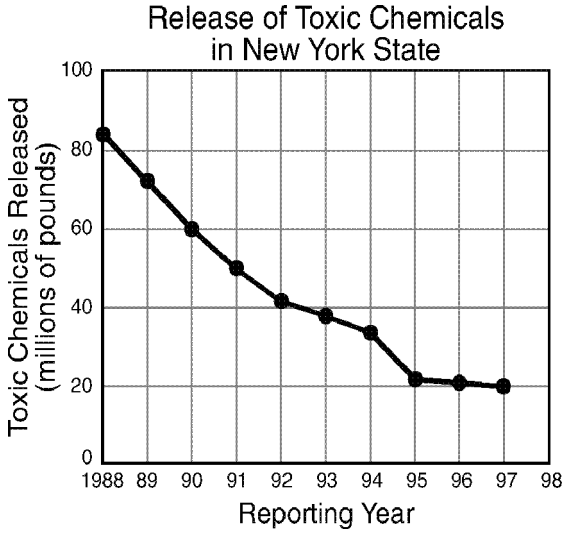
B. renewable and does minimal damage to the atmosphere

C. nonrenewable and does substantial damage to the atmosphere

D. nonrenewable and does minimal damage to the atmosphere

8. Base your answer(s) to the following question(s) on the information and graph below.

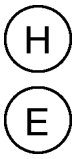
Reducing toxic chemicals released into the environment often requires laws. When making decisions about whether or not to support the passing of such laws, individuals must weigh the benefits against the potential risks if the law is not passed. The amounts of toxic chemicals released into the environment of New York State over a ten-year period are shown in the graph below.



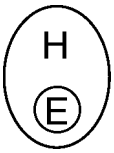
State one possible explanation for why the amount of toxic chemicals released remained relatively constant between 1995 and 1997.

9. Which diagram best illustrates the relationship between humans (*H*) and ecosystems (*E*)?

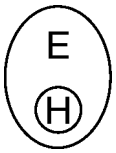
A.



C.



B.



D.

10. Base your answer(s) to the following question(s) on the information below and on your knowledge of biology.

Beware of Dust Mites

Quietly lurking within our mattresses, under our beds, and inside sofas and carpets are creatures too small to be seen without a microscope. Dust mites are arthropods closely related to spiders, scorpions, and ticks. They feed on the dead skin cells regularly shed by humans and their animal pets. The average human sheds about 10 grams of dead skin a week. Cats and dogs create even more dander for dust mites to eat. The mites also eat pollen, fungi, and bacteria. They do not drink water but absorb it from the air.

Dust mites do not carry diseases and are harmless to most people. It's their bathroom habits that make some of us itch and sneeze. Many people develop severe allergies to dust mite feces (wastes). If you lie on a rug where dust mites live, you might develop itchy red bumps on your skin. Breathe in dust containing their feces and you might have more serious symptoms, such as difficulty breathing or a severe asthma attack. Dust mites thrive in warm, humid environments — eating and nesting in dust — collecting bedding, fabric, and carpet. Think about this! A typical mattress can contain anywhere from 100,000 to 10 million dust mites. Nearly 100,000 dust mites can live in one square yard of carpet.

During a process called sensitization, a person's immune system mistakenly identifies the inhaled dust mite waste as an invader. The next time the person is exposed to the dust mite waste, the immune system launches an allergic reaction.

State *one* way, other than using a pesticide, that an individual could decrease the number of dust mites present in his home.

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1.
Answer: B

2.
Answer: If the crickets are killed, the food supply of frogs will be reduced. or The mouse population might increase due to lack of competition with the crickets.

3.
Answer: D

4.
Answer: B

5.
Answer: C

6.
Answer: B

7.
Answer: B

8.
Answer: The laws had been in place long enough for businesses to reduce toxic chemical output to the lowest possible levels. OR The laws may have set 20 million pounds as an acceptable limit. OR stricter law enforcement

9.
Answer: B

10.
Answer: do not have a cat or a dog

lower the amount of moisture in the air in the home

do not have carpet on the floor

vacuum often

clean or remove dust often

wash bedding frequently