

## CH 5/6 Biology Test (Populations & Biodiversity)

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_ 1. The movement of organisms into a range is called
  - a. immigration.
  - b. emigration.
  - c. population shift.
  - d. carrying capacity.
  
- \_\_\_ 2. Which of the following could describe a population that is decreasing in size?
  - a. The birthrate and the death rate remain the same.
  - b. The death rate is becoming lower than the birthrate.
  - c. The death rate is constant and the birthrate is increasing.
  - d. The death rate is becoming higher than the birthrate.
  
- \_\_\_ 3. Which are two ways a population can decrease in size?
  - a. immigration and emigration
  - b. increased death rate and immigration
  - c. decreased birthrate and emigration
  - d. emigration and increased birthrate
  
- \_\_\_ 4. As resources in a population become less available, the population
  - a. declines rapidly.
  - b. increases slowly.
  - c. reaches carrying capacity.
  - d. enters a phase of exponential growth.
  
- \_\_\_ 5. Something that controls the growth or size of a population is
  - a. the carrying capacity.
  - b. the growth rate.
  - c. a limiting factor.
  - d. a growth factor.
  
- \_\_\_ 6. Which will reduce competition within a species' population?
  - a. fewer individuals
  - b. higher birthrate
  - c. fewer resources
  - d. higher population density
  
- \_\_\_ 7. If a population grows larger than the carrying capacity of the environment, which of these is most likely to happen?
  - a. The death rate may rise.
  - b. The birthrate may rise.
  - c. The death rate must fall.
  - d. The birthrate must fall.

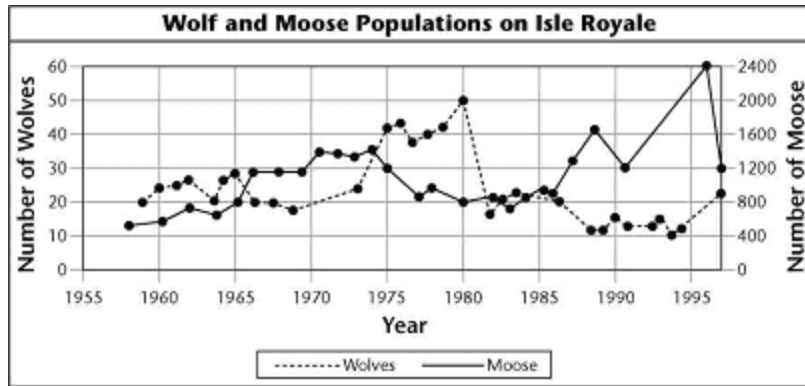
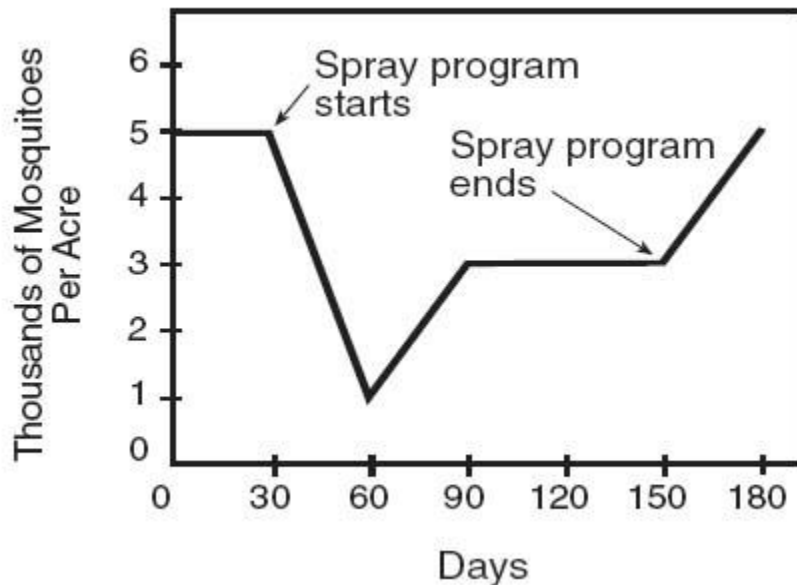


Figure 5-2

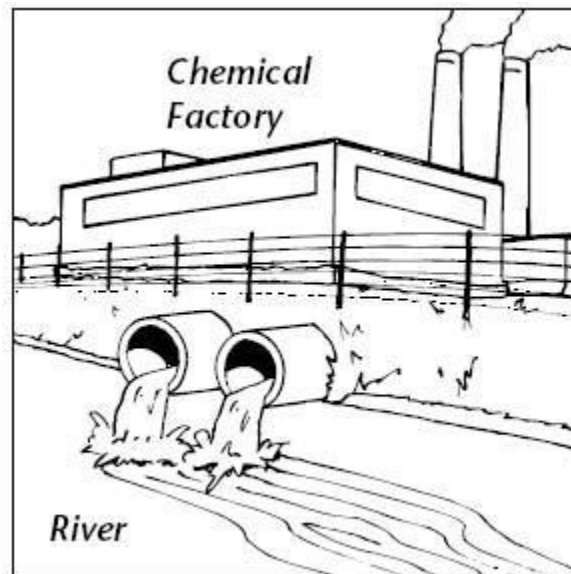
8. Using Figure 5-2, what is the most likely cause of the decrease in moose population immediately after 1995?
- Poisonous plants killed off many moose.
  - Many moose reached old age and died.
  - Overcrowding caused competition in the moose population.
  - A decrease in predators caused competition in the moose population.
9. Each of the following is a density-dependent limiting factor EXCEPT
- competition.
  - temperature.
  - crowding.
  - disease.
10. A disease resulting in the deaths of one third of a dense population of bats in a cave would be a
- density-dependent limiting factor.
  - result of exponential growth.
  - density-independent limiting factor.
  - nutrient-limiting factor.



**Figure 5–3**

- \_\_\_ 11. The graph in Figure 5–3 shows the changes in a mosquito population. What caused the changes seen in the graph?
- a reduction in resources
  - a increase in predation.
  - a density-independent limiting factor
  - a density-dependent limiting factor
- \_\_\_ 12. A benefit of monoculture farming practices is
- the ability to grow a lot of food.
  - the ability to spend less money on fertilizer.
  - the use of less water for irrigation.
  - disease and pest resistance of the crops.
- \_\_\_ 13. Imported plants and animals in Hawaii have
- caused native species to die out.
  - increased the native bird species.
  - improved soil fertility.
  - increased crop yields.
- \_\_\_ 14. A developer wants to build new a new housing development in or around a large city. Which of the following plans would be LEAST harmful to the environment?
- Clearing a forested area outside of the city to build houses.
  - Building apartments at the site of an abandoned factory in the city.
  - Building a neighborhood in a meadow at the edge of the city.
  - Filling a wetland area and building oceanfront condominiums.
- \_\_\_ 15. What is one negative consequence of the Industrial Revolution?
- fewer jobs for people living in cities
  - more expensive clothes
  - environmental harm from the burning of fossil fuels
  - people working longer hours at their jobs
- \_\_\_ 16. An example of a renewable resource is
- oil.
  - natural gas.
  - coal.
  - trees.
- \_\_\_ 17. Ideally, sustainable development should
- put the protection of the environment ahead of human needs.
  - provide for human needs at the expense of the environment.
  - use more natural resources to make goods to meet human needs.
  - preserve ecosystems while providing for human needs.
- \_\_\_ 18. Using environmental resources in a way that does not cause long-term environmental harm is like
- spending only as much money as you earn.
  - borrowing money that you cannot pay back for a long time.
  - printing more money when you need it.
  - lending money to people who can't pay it back.

- \_\_\_ 19. The 1930s Dust Bowl in the Great Plains was caused by
- deforestation.
  - contour plowing.
  - using renewable resources.
  - poor farming practices.
- \_\_\_ 20. When farming, overgrazing, climate change, and/or seasonal drought change farmland into land that cannot support plant life, it is called
- desertification.
  - depletion.
  - deforestation.
  - monoculture.
- \_\_\_ 21. Which of the following is NOT considered a sustainable-development strategy for management of Earth's resources?
- contour plowing
  - desertification
  - crop rotation
  - selective harvesting of trees
- \_\_\_ 22. An example of sustainable resource use is the use of predators and parasites to
- harm natural resources.
  - pollinate plants.
  - control pest insects.
  - eat unwanted plants.

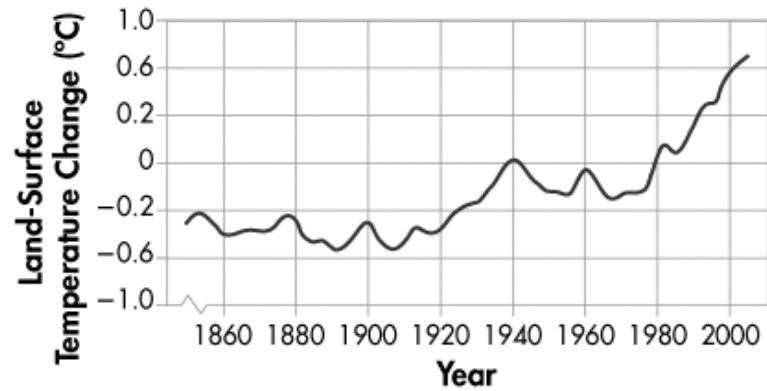


**Figure 6-2**

- \_\_\_ 23. What is shown in Figure 6-2 above?
- point source pollution
  - nonpoint source pollution
  - water conservation
  - water treatment

- \_\_\_ 24. One property that makes DDT hazardous over the long run is that DDT is
- an insecticide.
  - a perfect pesticide.
  - subject to biological magnification.
  - deadly to herbivores.
- \_\_\_ 25. The sulfur and nitrogen compounds in smog combine with water to form
- ozone.
  - ammonia.
  - acid rain.
  - chlorofluorocarbons.
- \_\_\_ 26. Air and water pollution have been reduced by
- using fossil fuels in factories.
  - using only unleaded gasoline.
  - raising more cattle for food.
  - increasing biological magnification.
- \_\_\_ 27. Biodiversity is valuable partly because it
- gives us interesting things to look at.
  - tells us about many other species.
  - contributes to medicine and agriculture.
  - provides humans with resistance to disease.
- \_\_\_ 28. All of the following are threats to biodiversity EXCEPT
- biological magnification of toxic compounds.
  - habitat fragmentation.
  - introduced species.
  - habitat preservation.
- \_\_\_ 29. By preserving hot spots, ecologists hope to protect species in danger of extinction due to
- captive breeding programs.
  - expanding national parks.
  - human activity.
  - biological magnification.
- \_\_\_ 30. One measure of the human impact on the biosphere is called
- biological magnification.
  - biodiversity.
  - an ecological hot spot.
  - an ecological footprint.
- \_\_\_ 31. The first step to using ecology to solve environmental problems is to
- ban the burning of fossil fuels.
  - close businesses that pollute.
  - use alternative fuels.
  - identify the problem.

### Change in Global Land-Surface Air Temperature, 1850–2005



**Figure 6-5**

- \_\_\_\_\_ 32. The data in the graph in Figure 6-5 above helped ecologists identify which environmental problem?
- the hole in the ozone layer
  - global warming
  - habitat fragmentation
  - desertification

