

Chapter 5 Quiz

Part A: Modified True/False

Indicate whether each statement is true or false. If the statement is false, change the statement to make it true.

- ____ 1. Only human actions can have negative effects on ecosystems.

- ____ 2. Pollutants are harmful only in large concentrations.

- ____ 3. Bioaccumulation is the buildup of harmful materials in the tissues of an organism.

Part B: Completion

Complete the sentences below.

4. _____ are substances in the air, soil, or water that are harmful to organisms.
5. Because of _____, tertiary consumers in a food chain may have higher concentrations of toxic substances in their bodies than do the primary consumers in the food chain.

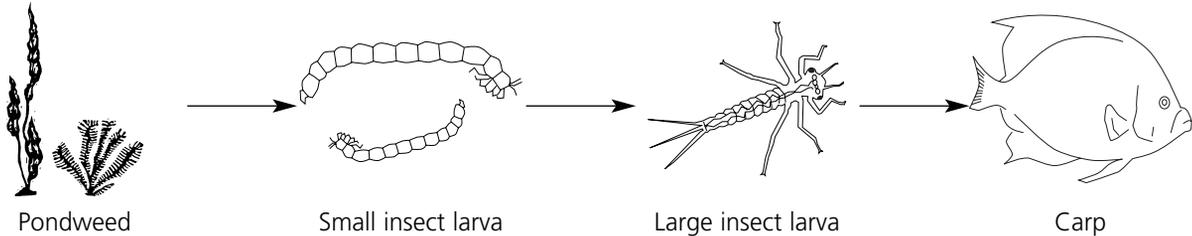
Part C: Multiple Choice

Circle the letter beside the answer that best completes the statement or answers the question.

6. Which of the following phenomena do scientists think has contributed to the pine beetle infestation in British Columbia?
- A. increased logging C. warmer-than-average winters
B. heavy precipitation D. colder-than-average summers
7. A pollutant with which of the following characteristics would most likely bioaccumulate in a primary consumer?
- A. not taken up by plants C. fatal in very low concentrations
B. easily broken down in the body D. degrades slowly in the environment
8. What is one way that human agriculture affects ecosystems?
- A. increased growth of trees
B. depletion of soil nutrients
C. decreased production of pollutants
D. enhancement of natural stream flow patterns

Chapter 5 Quiz (continued)

9. Selenium is a heavy metal that can undergo biomagnification. In which of the organisms in the food chain below would you expect to find the highest concentration of selenium?



- A. carp
 B. pondweed
 C. large insect larva
 D. small insect larva

10. Why is the water in acidic lakes typically very clear?

- A. Most organisms cannot live in acidic water.
 B. Acid-loving algae in the lake eat all the other organisms.
 C. The acids in the water prevent mud from forming in the lake.
 D. The acidic water breaks down the wastes of the organisms living in the lake.

Part D: Short Answer

11. Choose one natural phenomenon that can affect ecosystems. Describe what causes the phenomenon to occur, and identify one positive and one negative effect of the phenomenon on ecosystems.

12. A local farmer has a large pond on his property that used to be full of fish and other aquatic life. Over the past five years, however, the pond has gradually become less healthy and now there is almost nothing alive in it. The farmer cannot figure out how this has happened. The only thing he notes that he has done differently is to increase the amount of fertilizer he has used on the crops near the pond. What explanation would you give to the farmer?
