**Chapter 5**

**Review Questions**

**Multiple Choice**

1. A \_\_\_\_\_\_\_\_\_\_ -controlled loop uses a true/false condition to control the number of

times that it repeats.

a. Boolean

b. condition

c. decision

d. count

2. A \_\_\_\_\_\_\_\_\_\_ -controlled loop repeats a specific number of times.

a. Boolean

b. condition

c. decision

d. count

3. Each repetition of a loop is known as a(n) \_\_\_\_\_\_\_\_\_\_.

a. cycle

b. revolution

c. orbit

d. iteration

4. The while loop is a \_\_\_\_\_\_\_\_\_\_ type of loop.

a. pretest

b. no-test

c. prequalified

d. post-iterative

5. A(n) \_\_\_\_\_\_\_\_\_\_ loop has no way of ending and repeats until the program is interrupted.

a. indeterminate

b. interminable

c. infinite

d. timeless

6. The -= operator is an example of a(n) \_\_\_\_\_\_\_\_\_\_ operator.

a. relational

b. augmented assignment

c. complex assignment

d. reverse assignment

7. A(n) \_\_\_\_\_\_\_\_\_\_ variable keeps a running total.

a. sentinel

b. sum

c. total

d. accumulator

8. A(n) \_\_\_\_\_\_\_\_\_\_ is a special value that signals when there are no more items from a

list of items to be processed. This value cannot be mistaken as an item from the list.

a. sentinel

b. flag

c. signal

d. accumulator

9. GIGO stands for

a. great input, great output

b. garbage in, garbage out

c. GIGahertz Output

d. GIGabyte Operation

10. The integrity of a program’s output is only as good as the integrity of the program’s

a. compiler

b. programming language

c. input

d. debugger

11. The input operation that appears just before a validation loop is known as the

a. prevalidation read

b. primordial read

c. initialization read

d. priming read

12. Validation loops are also known as

a. error traps

b. doomsday loops

c. error avoidance loops

d. defensive loops

**True or False**

1. A condition-controlled loop always repeats a specific number of times.

2. The while loop is a pretest loop.

3. The following statement subtracts 1 from x: x = x - 1

4. It is not necessary to initialize accumulator variables.

5. In a nested loop, the inner loop goes through all of its iterations for every single iteration

of the outer loop.

6. To calculate the total number of iterations of a nested loop, add the number of iterations

of all the loops.

7. The process of input validation works as follows: when the user of a program enters

invalid data, the program should ask the user “Are you sure you meant to enter that?”

If the user answers “yes,” the program should accept the data.

**Short Answer**

1. What is a condition-controlled loop?

2. What is a count-controlled loop?

3. What is an infinite loop? Write the code for an infinite loop.

4. Why is it critical that accumulator variables are properly initialized?

5. What is the advantage of using a sentinel?

6. Why must the value chosen for use as a sentinel be carefully selected?

7. What does the phrase “garbage in, garbage out” mean?

8. Give a general description of the input validation process.