

Quizzes: Chapter 17

1. The _____ statement adds 1 to the variable.

- a. increment
- b. decrement
- c. loop
- d. complement

Correct Answer: (a)

2. The _____ statement repeats one or more actions.

- a. increment
- b. decrement
- c. loop
- d. complement

Correct Answer: (c)

3. The _____ statement subtracts 1 from the variable.

- a. increment
- b. decrement
- c. loop
- d. complement

Correct Answer: (b)

4. To clear a variable, we use the _____ statement(s).

- a. increment
- b. decrement
- c. loop
- d. decrement and loop

Correct Answer: (d)

5. To assign a number to a variable, we use the _____ statement(s).

- a. increment
- b. decrement
- c. loop
- d. decrement and loop

Correct Answer: (a)

6. To copy the value of one variable to another, we use the _____ statement(s).

- a. increment
- b. decrement
- c. loop
- d. increment, decrement, and loop

Correct Answer: (d)

7. A Turing machine has these components: _____.

- a. tape, memory, and read/write head
- b. disk, controller, and read/write head
- c. tape, controller, and read/write head
- d. disk, memory, and controller

Correct Answer: (c)

8. In a Turing machine, the _____ holds a sequence of characters.

- a. disk
- b. tape
- c. controller
- d. read/write head

Correct Answer: (b)

9. The _____ is the theoretical counterpart of the CPU.

- a. disk
- b. tape
- c. controller
- d. read/write head

Correct Answer: (c)

10. The controller has _____ states.
- a. three
 - b. four
 - c. a finite number of
 - d. an infinite number of
- Correct Answer: (c)**
11. A _____ is a pictorial representation of the states and their relationships to each other.
- a. transition diagram
 - b. flowchart
 - c. transition table
 - d. Turing machine
- Correct Answer: (a)**
12. A _____ shows, among other things, the movement of the read/write head, the character read, and the character written.
- a. diagram
 - b. flowchart
 - c. transition table
 - d. Turing machine
- Correct Answer: (c)**
13. We use _____ to denote a program's complexity.
- a. the Turing number
 - b. big-O notation
 - c. factorials
 - d. the Simple Language
- Correct Answer: (b)**
14. The complexity of a problem is $O(\log_{10} n)$ and the computer executes 1 million instructions per second. How long does it take to run the program if the number of operations is 10,000?
- a. 1 microsecond
 - b. 2 microseconds
 - c. 3 microseconds

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d. 4 microseconds

Correct Answer: (d)