RAMAGYA SCHOOL, NOIDA

VI/CYBER/2017-18

OLYMPIAD PRACTICE WORKSHEET

1. **In a flowchart, input or output is represented by which of the following symbols?**

   a.
   b.
   c.
   d.

2. **When a program is _____, it is run with a wide variety of data to determine if it always obtains correct results.**

   a. debugged
   b. compiled
   c. tested
   d. desk checked

3. **The grammatical rules of a language are its _____.**

   a. structure
   b. syntax
   c. pseudocode
   d. documentation

4. **When a programmer traces through a program by hand in an attempt to locate errors, he or she is _____ the program.**

   a. executing
   b. coding
   c. desk checking
   d. documenting

5. **BASIC is _____.**

   a. a machine language
   b. short for Beginner's All-Purpose Symbolic Instruction Code
   c. difficult to learn
   d. useful only for writing business programs

6. **The _____ is the sequence of steps that a programmer uses when using the computer as a problem-solving tool.**

   a. structure chart
   b. programming process
   c. problem definition
   d. decision step

7. **Which of the following is true of structured programming?**

   a. Program logic is easy to follow and the programs are divided into smaller subprograms.
   b. Program logic is easy to follow and the programs are written in machine language.
   c. The programs are divided into smaller subprograms and the programs are written in machine language.
   d. The programs are written in assembly language and are divided into smaller subprograms.

8. Which of the following is *not* part of the first step of the programming process?

a. determining the needed output and how it should be formatted
b. determining the needed input
c. documenting the problem definition
d. developing an algorithm

9. _____ graphically represents how a problem solution can be broken into subtasks.

a. A flowchart
b. Pseudocode
c. An algorithm
d. A structure chart

10. A (n) _____ must list every step in a problem solution necessary to get the correct output from the input.

a. algorithm
b. problem definition
c. programming process
d. input chart

11. Which of the following is *not* one of the three basic types of control structures with which any program can be written?

a. the loop structure
b. the addition statement
c. the decision structure
d. the sequence

12. _____ is a method of solving a problem by proceeding from the general to the specific.

a. Flowcharting
b. Problem definition
c. Top-down design
d. Pseudocoding

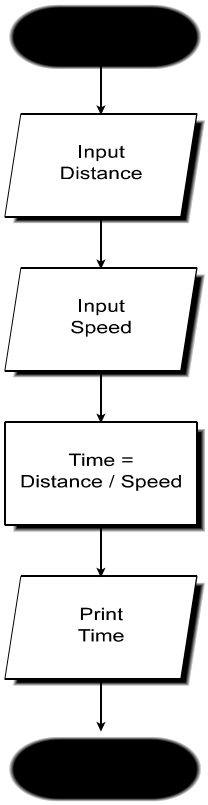
13. Which of the following is *not* one of the steps in the programming process?

a. writing and documenting the program
b. defining and documenting the problem
c. designing and documenting a solution
d. printing the results

14. Which of the three types of program structures would be the *most* useful if a program needed to read the names and test scores of 200 students?

a. the sequence
b. the decision structure
c. the loop structure
d. none

Use the following flowchart to answer Questions 15–18.



15. How many input steps does this flowchart contain?

a. 0 b. 1
c. 2 d. 3

16. How many output steps does this flowchart contain?

a. 0 b. 1
c. 2 d. 3

17. What type of symbol represents the processing step?

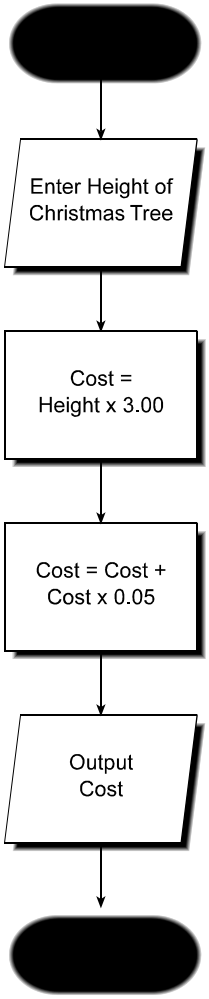
a. b._____

c. d.

18. Which of the following statements best describes the function of this flowchart?

a. It calculates the time needed to travel a specified distance at a specified speed.
b. It calculates the distance that can be traveled in a specified time at a specified speed.
c. It calculates the speed needed to travel a specified distance in a specified time.
d. It calculates the amount of gas used to travel a specified distance in a specified time.

Use the following flowchart to answer Questions 19–21.



19. How many arithmetic steps does this flowchart have?

a. 1 b. 2
c. 3 d. 4

20. In all, how many input and output steps does this flowchart have?

a. 0 b. 2
c. 3 d. 4