Gaddis: Starting Out with Programming Logic & Design Test Bank

Chapter Two

MULTIPLE CHOICE

1. Which error produces incorrect results but does not prevent the program from running?
   a. syntax
   b. logic
   c. grammatical
   d. human
   e. None of the above

   ANS: B

2. The program development cycle is made up of _____ steps that are repeated until no errors can be found in the program.
   a. Five
   b. Four
   c. Three
   d. Six
   e. None of these

   ANS: A

3. What is the informal language that programmers use to create models of programs that have no syntax rules and are not meant to be compiled or executed?
   a. Program
   b. Flowchart
   c. Algorithm
   d. Code
   e. Pseudocode

   ANS: E

4. The _____ is a diagram that graphically depicts the steps that take place in a program.
   a. Program
   b. Flowchart
   c. Algorithm
   d. Code
   e. Pseudocode

   ANS: B

5. A _____ structure is a set of statements that execute in the order they appear.
   a. Control
   b. Repetition
   c. Decision
   d. Sequence
   e. None of the above

ANS: D

6. Which symbol is used for an assignment statement in a flowchart?
    a. Processing
    b. I/O
    c. Terminal
    d. Parallelogram
    e. None of the above

    ANS: A

7. Which mathematical operator is used to raise five to the second power?
    a. MOD
    b. *
    c. ^
    d. /
    e. ~

    ANS: C

8. The value of the expression 12 – 4 * 3 / 2 + 9 is _____.
    a. 21
    b. 15
    c. -6
    d. 2.18
    e. None of the above

    ANS: B

9. Which of the following is not a variable data type?
    a. Number
    b. Integer
    c. Real
    d. String
    e. None of the above

    ANS: A

10. A _____ is a name that represents a value that cannot be changed during the program's execution.
    a. Uninitialized variable
    b. Named variable
    c. Named constant
    d. Input variable
    e. None of the above

    ANS: C

11. _____ documentation is a reference guide that describes the features of the program, designed for the user.
    a. Internal

   b. External
   c. Program
   d. Block
   e. Line

   ANS: B

12. The process where the programmer steps through each of the program's statements one by one is called _____.
   a. Hand tracing
   b. Debug
   c. Execute
   d. Run
   e. Checking

   ANS: A

13. What is another term used for 'desk checking'?
   a. Hand tracing
   b. Debug
   c. Execute
   d. Run
   e. Checking

   ANS: A

14. The following is an example of what type of statement:
            Set rate = 5.75
   a. Declaration
   b. Assignment
   c. Input
   d. Output
   e. None of the above

   ANS: B

15. What symbol is used to mark the beginning and end of a string?
   a. Slash
   b. Asterisk
   c. Quotation
   d. Comma
   e. Question

   ANS: C

16. Which of the following is not an actual programming language?
   a. C++
   b. Visual Basic
   c. Java
   d. Pseudocode
   e. Python

ANS: D

17. What is the first step of the program development cycle?
    a. Write the code
    b. Correct syntax errors
    c. Debug the code
    d. Test the executable code
    e. Design the program

    ANS: E

18. What term is used for a string that appears in the actual code of a program?
    a. String literal
    b. Virtual string
    c. Hard copy
    d. Strongly typed
    e. None of the above

    ANS: A

TRUE/FALSE

1. True/False: Programmers start writing code as the first step when they begin a new project.

   ANS: F

2. True/False: The structure of the camelCase naming convention is to write the first word of the variable name in lowercase letters and then to capitalize the first character of the second and subsequent words.

   ANS: T

3. True/False: The expressions (a + b) / c and a + b / c will always yield identical results.

   ANS: F

4. True/False: An uninitialized variable is a variable that has been declared and automatically initialized to zero.

   ANS: F

5. True/False: A named constant can be assigned a value using a Set statement.

   ANS: F

6. True/False: A sequence of characters that is used as data is called a string in programming.

ANS: T

7. True/False: Ovals are used as terminal symbols marking the starting and end of the pseudocode.

    ANS: F

8. True/False: Programmers use pseudocode to create 'mock-ups' of programs because they do not have to worry about syntax rules.

    ANS: T

9. True/False: It has been proven by a group of mathematicians that all programs can be written using only three structures.

    ANS: T

10. True/False: A variable is a storage location in memory that is represented by a name and can hold different values during the execution of the program.

    ANS: T

11. True/False: If you mistakenly write pseudocode into an editor for an actual programming language, such as Python or Visual Basic, errors will result.

    ANS: T

12. True/False: Most programming languages do not automatically print spaces between multiple items that are displayed on the screen.

    ANS: T

FILL IN THE BLANK

1. The _____ process occurs when the programmer finds and corrects the code that is causing the error(s).

    ANS: debugging

2. A _____ is a list of requirements created after studying the information gathered from interviews with the customer.

    ANS: software requirement

3. A(n) _____ is a set of well-defined logical steps that must be taken to perform a task.

    ANS: algorithm

4. The _____ symbol is used to represent the inputs and outputs in the steps of the program.

    ANS: parallelogram

5. _____ software is characterized by programs whose clear displays and understandable prompts are easy to use.

    ANS: user-friendly

6. The _____ operator performs division and returns the remainder.

    ANS: modulus

7. A _____ statement specifies the variable's name and the variable's data type.

    ANS: variable declaration

8. The comments the programmer places in the code explaining how different parts of the program work are known as _____ documentation.

    ANS: internal

9. _____ comments take up several lines and are used when lengthy explanations are required in the program.

    ANS: Block

10. The word _____is used to declare a named constant.

    ANS: Constant

11. In many programming languages, _____ variables hold unpredictable values, but in other languages, a default value is assigned to such variables.

    ANS: Uninitialized

12. A _____ statement can be used to initialize multiple variables.

    ANS: declaration

13. Programmers use operators to create _____ expressions to perform calculations and return a value.

    ANS: mathematical

14. In the expression 57 * 6, the values 57 and 6, which are on the left and right of the * symbol, respectively, are called _____.

    ANS: operands

15. Computer programs perform a _____ - step process.

    ANS: three

16. To determine a program's _____ requirements, you must determine the pieces of data required for the program to complete its task.

    ANS: input

17. When a mathematical calculation is performed, you typically want to store the result of that calculation in a _____.

    ANS: variable

18. A program's _____ will typically be the result of the process or processes that it has performed.

    ANS: output