

CP22

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ____ 1. Consider the following `do-while` loop, whose job is to check for a valid customer identification number between the numbers 100 and 1999:

```
do
{
    cout << "\nEnter an identification number: ";
    cin >> idNum;
}
while ( // Missing expression goes here);
```

Which of the following is the correct missing expression?

- a. `idNum < 100 || > 1999`
 - b. `idNum >= 100 && idNum <= 1999`
 - c. `idNum < 100 || idNum != 2000`
 - d. `idNum < 100 || idNum > 1999`
- ____ 2. It is the responsibility of the ____ to ensure that the tested expression is changed in a way that ultimately leads to a normal exit from a *while* loop.
- a. computer operator
 - b. programmer
 - c. user
 - d. compiler
- ____ 3. Using ____ to enclose a set of statements creates a single block of statements.
- a. braces
 - b. colons
 - c. semicolons
 - d. parentheses
- ____ 4. The ____ statement performs the same function as the `while` statement but uses a different form.
- a. `for`
 - b. `continue`
 - c. `if-else`
 - d. `if`
- ____ 5. Dividing the integer 15 by the integer 2 yields the result ____.
- a. 7
 - b. 7.5
 - c. 7.500
 - d. 152
- ____ 6. The value of a relational expression such as `hours > 40` depends on the ____ stored in the variable `hours`.
- a. condition
 - b. sign
 - c. relationship
 - d. value
- ____ 7. Placement of the `main()` function definition before other function definitions is ____.
- a. required
 - b. recommended
 - c. of no importance
 - d. forbidden
- ____ 8. A variable name must begin with ____.
- a. an upper case letter
 - b. a letter or a number
 - c. a letter or an underscore
 - d. a lower case letter
- ____ 9. The extraction operator used with `cin` is ____.
- a. `<<`
 - b. `>>`
 - c. `<>`
 - d. `,`

- ____ 10. A function returning a value must specify, in its header line, the ____ of the value that will be returned.
- a. size
 - b. address
 - c. use
 - d. data type
- ____ 11. Any expression that is terminated by a ____ becomes a C++ statement.
- a. semicolon
 - b. curly bracket
 - c. colon
 - d. period
- ____ 12. The altering list is the ____ item contained within the `for` statement's parentheses.
- a. first
 - b. second
 - c. third
 - d. fourth
- ____ 13. In high-level languages like C++, ____ are used in place of actual memory addresses.
- a. symbolic names
 - b. aliases
 - c. references
 - d. virtual addresses
- ____ 14. A programming language's ____ is the set of rules for formulating statements that are grammatically correct for the language.
- a. format
 - b. dictionary
 - c. namespace
 - d. syntax
- ____ 15. The first character of an identifier must be a ____ or an underscore (`_`).
- a. number
 - b. letter
 - c. mnemonic
 - d. special character
- ____ 16. ____ letters is essential in alphabetizing names.
- a. Deleting
 - b. Comparing
 - c. Adding
 - d. Capitalizing
- ____ 17. If an expression is *false* to begin with, then `!expression` is *true* and evaluates to a value of ____.
- a. 0
 - b. 1
 - c. 2
 - d. 3
- ____ 18. A(n) ____ loop is one that never ends.
- a. broken
 - b. variable-condition
 - c. infinite
 - d. fixed-count
- ____ 19. Within the parentheses of the `for` statement are ____ items separated by semicolons.
- a. two
 - b. three
 - c. four
 - d. five
- ____ 20. Another term for a computer program is ____.
- a. object
 - b. software
 - c. hardware
 - d. procedure
- ____ 21. The arithmetic operator `%` is the C++ symbol for the ____ operation.
- a. division
 - b. addition
 - c. modulus
 - d. percentage
- ____ 22. A loop contained within another loop is called a ____ loop.
- a. secondary
 - b. nested
 - c. virtual
 - d. replacement

- ____ 23. When English-like phrases are used to describe an algorithm (the processing steps), the description is called ____.
- | | |
|--------------|----------------|
| a. a formula | c. pseudocode |
| b. a program | d. a flowchart |
- ____ 24. When a declaration statement is used to store a value in a variable, the variable is said to be ____.
- | | |
|----------------|---------------|
| a. initialized | c. declared |
| b. created | d. referenced |
- ____ 25. An algorithm is a step-by-step sequence of ____ that describes how a computation is to be performed.
- | | |
|------------|-----------------|
| a. classes | c. data |
| b. objects | d. instructions |
- ____ 26. Both the `for` and `while` statements are ____ loops.
- | | |
|-----------|------------|
| a. inner | c. outer |
| b. nested | d. pretest |
- ____ 27. All statements in a `do-while` loop are executed at least ____.
- | | |
|----------|----------------|
| a. once | c. three times |
| b. twice | d. four times |
- ____ 28. The C++ statement `'cout << (6 + 15);'` yields the result ____.
- | | |
|-------------|---------|
| a. (6 + 15) | c. 21 |
| b. error | d. (21) |
- ____ 29. In a C++ program, statement indentation is ____ as far as the compiler is concerned.
- | | |
|---------------|-----------------|
| a. invalid | c. required |
| b. irrelevant | d. standardized |
- ____ 30. The set of values supported by the `int` data type are ____ numbers.
- | | |
|-------------|------------|
| a. real | c. rounded |
| b. positive | d. whole |
- ____ 31. The declaration statement for a function is referred to as a function ____.
- | | |
|-------------------|----------------|
| a. initialization | c. prototype |
| b. specification | d. declaration |
- ____ 32. The parentheses following a function call enclose ____.
- | | |
|--|-------------------------------------|
| a. the data type of function variables | c. data passed to the function |
| b. the processing instructions | d. the number of function variables |
- ____ 33. The backslash, `\`, is referred to as the ____ character.
- | | |
|--------------|-------------|
| a. escape | c. tab |
| b. separator | d. quotient |
- ____ 34. A loop that evaluates a condition before any statements in the loop are executed is referred to as a(n) ____ loop.
- | | |
|----------------|--------------------|
| a. fixed-count | c. posttest |
| b. pretest | d. exit-controlled |
- ____ 35. Omitting the tested expression from a `for` loop results in ____.
- | | |
|------------------|----------------------|
| a. a print error | c. a crashed program |
| b. a read error | d. an infinite loop |

CP22**Answer Section****MULTIPLE CHOICE**

1. ANS: D	PTS: 1	REF: 219
2. ANS: B	PTS: 1	REF: 183
3. ANS: A	PTS: 1	REF: 146
4. ANS: A	PTS: 1	REF: 201
5. ANS: A	PTS: 1	REF: 52
6. ANS: D	PTS: 1	REF: 139
7. ANS: B	PTS: 1	REF: 234
8. ANS: C	PTS: 1	REF: 58
9. ANS: B	PTS: 1	REF: 132
10. ANS: D	PTS: 1	REF: 245
11. ANS: A	PTS: 1	REF: 83
12. ANS: C	PTS: 1	REF: 201
13. ANS: A	PTS: 1	REF: 58
14. ANS: D	PTS: 1	REF: 20
15. ANS: B	PTS: 1	REF: 14
16. ANS: B	PTS: 1	REF: 139
17. ANS: B	PTS: 1	REF: 140
18. ANS: C	PTS: 1	REF: 183
19. ANS: B	PTS: 1	REF: 201
20. ANS: B	PTS: 1	REF: 3
21. ANS: C	PTS: 1	REF: 49
22. ANS: B	PTS: 1	REF: 209
23. ANS: C	PTS: 1	REF: 5-6
24. ANS: A	PTS: 1	REF: 63
25. ANS: D	PTS: 1	REF: 5
26. ANS: D	PTS: 1	REF: 196
27. ANS: A	PTS: 1	REF: 218
28. ANS: C	PTS: 1	REF: 49
29. ANS: B	PTS: 1	REF: 159
30. ANS: D	PTS: 1	REF: 39
31. ANS: C	PTS: 1	REF: 227
32. ANS: C	PTS: 1	REF: 228
33. ANS: A	PTS: 1	REF: 41
34. ANS: B	PTS: 1	REF: 196
35. ANS: D	PTS: 1	REF: 207

D 10. C 23. A 11. A 24. D 1. C 12. D 25. A 13. D 26. D 14. A 27. B 2. B 15. C 28. A 3. B 16. B 29. A 4. B 17. D 30. A 5. C 18. C 31. D 6. B 19. C 32. B 7. B 20. A 33. C 8. C 21. B 34. B 9. B 22. D 35.