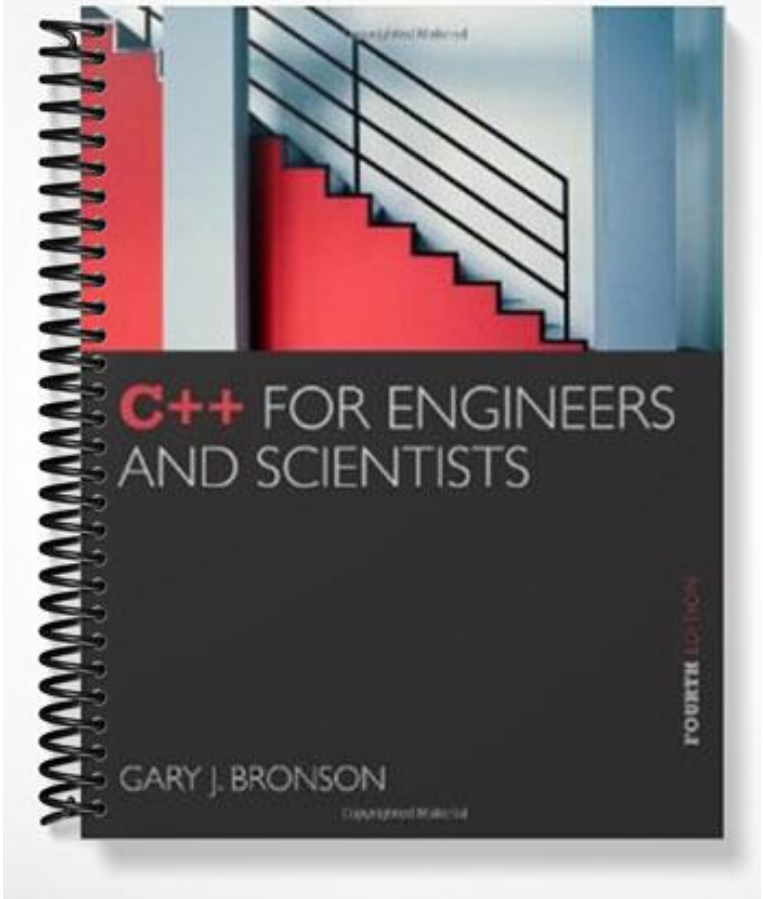
TEST BANK


C++ FOR ENGINEERS
AND SCIENTISTS
FOURTH EDITION
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TRUE/FALSE

1. Modular programs are easier to develop, correct, and modify than programs constructed in some other manner.

   ANS: T PTS: 1 REF: 45

2. One important requirement for designing a good function is giving it a name that conveys some idea of what the function does.

   ANS: T PTS: 1 REF: 47

3. Except for strings, double quotes, identifiers, and keywords, C++ ignores all white space.

   ANS: T PTS: 1 REF: 56

4. C++ is a case-sensitive language.

   ANS: T PTS: 1 REF: 48

5. Programs in C++ can have more than one `main()` function.

   ANS: F PTS: 1 REF: 48

6. Preprocessor commands end with a semicolon.

   ANS: F PTS: 1 REF: 51

7. C++ provides ten built-in integer data types.

   ANS: F PTS: 1 REF: 61

8. You cannot add and subtract character data and mix it with integer data to produce useful results.

   ANS: F PTS: 1 REF: 70

9. Although declaration statements can be placed anywhere in a function, typically they're grouped together and placed after the function's opening brace.

   ANS: T PTS: 1 REF: 81

10. Omitting the parentheses after `main()` is a common programming error.

    ANS: T PTS: 1 REF: 97

MULTIPLE CHOICE

1. Programs with a structure consisting of interrelated segments, called ____, are arranged in a logical, easily understandable order to form an integrated and complete unit.
   a. blocks
   c. units

b. modules
d. procedures

ANS: B PTS: 1 REF: 45

2. ____ programs are easier to develop, correct, and modify than programs constructed in some other manner.
a. Modular
c. Sequential
b. Handwritten
d. Low-level

ANS: A PTS: 1 REF: 45

3. A ____ contains both data and functions appropriate for manipulating the data.
a. segment
c. class
b. block
d. function

ANS: C PTS: 1 REF: 47

4. A(n) ____ is a word the language sets aside for a special purpose and can be used only in a specified manner.
a. codeword
c. identifier
b. keyword
d. classname

ANS: B PTS: 1 REF: 47

5. The maximum number of characters in a function name is ____.
a. 128
c. 512
b. 256
d. 1024

ANS: D PTS: 1 REF: 47

6. A(n) ____ is a word designed as a memory aid.
a. mnemonic
c. reserved word
b. keyword
d. identifier

ANS: A PTS: 1 REF: 48

7. The `main()` function is referred to as a(n) ____ function because it tells other functions the sequence in which they execute.
a. logical
c. driver
b. auxiliary
d. class

ANS: C PTS: 1 REF: 48

8. Data transmitted to a function at runtime is referred to as the ____ of the function.
a. return value
c. body
b. arguments
d. structure

ANS: B PTS: 1 REF: 49

9. The ____ is an output object that sends data it receives to the standard display device.
a. `out`
c. `print`
b. `cin`
d. `cout`

ANS: D PTS: 1 REF: 50

10. Preprocessor commands begin with a ____ sign.
a. `#`
c. `//`

b. `!`
d. `*/`

ANS: A PTS: 1 REF: 51

11. ____ in C++ are any combination of letters, numbers, and special characters enclosed in quotation marks.
a. Arrays
b. Strings
c. Enums
d. Objects

ANS: B PTS: 1 REF: 52

12. The newline escape sequence is ____.
a. `\l`
b. `\r`
c. `\n`
d. `\t`

ANS: C PTS: 1 REF: 52

13. ____ are explanatory remarks made in a program.
a. Comments
b. Strings
c. Escape sequences
d. Classes

ANS: A PTS: 1 REF: 57

14. A ____ begins with two slashes (`//`) and continues to the end of the line.
a. program comment
b. function comment
c. block comment
d. line comment

ANS: D PTS: 1 REF: 57

15. A(n) ____ is an acceptable value for a data type.
a. primitive value
b. literal
c. built-in value
d. class value

ANS: B PTS: 1 REF: 61

16. The three most important and common integer types used in most applications are `int`, `char`, and ____.
a. `long int`
b. `unsigned char`
c. `bool`
d. `long`

ANS: C PTS: 1 REF: 61

17. The C++ operator ____ provides the number of bytes used to store values for any data type named in the operator's parentheses.
a. `size()`
b. `sizeof()`
c. `length()`
d. `lengthof()`

ANS: B PTS: 1 REF: 65

18. A(n) ____ number, more commonly known as a real number, can be the number zero or any positive or negative number that contains a decimal point.
a. boolean
b. integer
c. long int
d. floating-point

ANS: D PTS: 1 REF: 67

19. A(n) ____ is an item used to change how the output stream of characters is displayed.

a. manipulator
b. escape sequence
c. string
d. char object

ANS: A PTS: 1 REF: 72

20. A(n) ____ is simply a name the programmer assigns to refer to computer storage locations.
a. constant
b. variable
c. expression
d. identifier

ANS: B PTS: 1 REF: 79

21. A(n) ____ data value is considered a complete entity and can't be decomposed into a smaller data type supported by the language.
a. composed
b. atomic
c. complex
d. real

ANS: B PTS: 1 REF: 82

22. When a declaration statement is used to store a value into a variable, the variable is said to be ____.
a. initialized
b. deleted
c. reserved
d. used

ANS: A PTS: 1 REF: 83

23. The value stored in the variable is referred to as the variable's ____.
a. address
b. location
c. data
d. contents

ANS: D PTS: 1 REF: 86

24. To determine the address of a variable, we can use C++'s address operator, ____, which means "the address of."
a. *
b. =
c. &
d. !

ANS: C PTS: 1 REF: 88

25. A common programming error consists of forgetting to separate data streams sent to `cout` with the insertion symbol, ____.
a. <
b. >
c. >>
d. <<

ANS: D PTS: 1 REF: 97

COMPLETION

1. A program consists of subprograms, called _____, that are designed and developed to perform a specific task.

ANS: modules

PTS: 1 REF: 46

2. In C++, a module can be a class or a(n) _____.

ANS: function

PTS: 1 REF: 46

3. In an object-oriented language, such as C++, a(n) _____ encapsulates both data and sets of operations.

ANS: class

PTS: 1 REF: 47

4. In a function header, the _____ before the function name defines the type of value the function returns when it has completed operating.

ANS: keyword

PTS: 1 REF: 49

5. Each _____ inside the function body must end with a semicolon (;).

ANS: statement

PTS: 1 REF: 50

6. The output object that sends data it receives to the standard display device, or console, is called _____.

ANS: `cout`

PTS: 1 REF: 50

7. The _____ and `ostream` classes provide the data declarations and methods used for data input and output, respectively.

ANS: `istream`

PTS: 1 REF: 51

8. C++ supports two types of comments: line and _____.

ANS: block

PTS: 1 REF: 57

9. A(n) _____ is defined as a set of values and a set of operations that can be applied to these values.

ANS:
data type
class

PTS: 1 REF: 60

10. In C++, a(n) _____ character changes the normal interpretation of the character following it and alters its meaning.

    ANS: escape

    PTS: 1 REF: 52

11. The _____ data type is used to store single characters.

    ANS: `char`

    PTS: 1 REF: 62

12. A(n) _____ data type allows negative values to be stored as well as zero and positive values.

    ANS: signed

    PTS: 1 REF: 66

13. In C++, a(n) _____ is any combination of operators and operands that can be evaluated to yield a value.

    ANS: expression

    PTS: 1 REF: 73

14. A(n) _____ statement names a variable and specifies the data type that can be stored in it.

    ANS: declaration

    PTS: 1 REF: 80

15. Variables used to hold single-precision values are declared by using the keyword _____.

    ANS: `float`

    PTS: 1 REF: 67

16. Every variable has three major items associated with it: its data type, the value stored in it, and its _____.

    ANS: address

    PTS: 1 REF: 87

17. Forgetting to enclose a string sent to _____ with quotation marks is a common programming error.

    ANS: `cout`

PTS: 1 REF: 97