

**Chapter 2**

1. In C++, reserved words are the same as predefined identifiers.

- a. True
- b. False

*ANSWER:* False

*POINTS:* 1

*REFERENCES:* 36

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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2. The maximum number of significant digits in values of the `double` type is 15.

- a. True
- b. False

*ANSWER:* True

*POINTS:* 1

*REFERENCES:* 41

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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3. The maximum number of significant digits in `float` values is up to 6 or 7.

- a. True
- b. False

*ANSWER:* True

*POINTS:* 1

*REFERENCES:* 42

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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4. An operator that has only one operand is called a unique operator.

- a. True
- b. False

*ANSWER:* False

*POINTS:* 1

*REFERENCES:* 45

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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5. If a C++ arithmetic expression has no parentheses, operators are evaluated from left to right.

- a. True
- b. False

*ANSWER:* True

*POINTS:* 1

*REFERENCES:* 46

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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6. A mixed arithmetic expression contains all operands of the same type.

- a. True
- b. False

*ANSWER:* False

*POINTS:* 1

*REFERENCES:* 48

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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7. Suppose  $a = 5$ . After the execution of the statement `++a;` the value of  $a$  is 6.

- a. True
- b. False

*ANSWER:* True

*POINTS:* 1

*REFERENCES:* 70

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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8. The escape sequence `\r` moves the insertion point to the beginning of the next line.

- a. True
- b. False

*ANSWER:* False

*POINTS:* 1

*REFERENCES:* 7

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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9. A comma is also called a statement terminator.

- a. True
- b. False

*ANSWER:* False

*POINTS:* 1

*REFERENCES:* 88

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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10. Suppose we declare a variable `sum` as an `int`. The statement `"sum += 7;"` is equivalent to the statement `"sum = sum + 7;"`.

- a. True
- b. False

*ANSWER:* True

*POINTS:* 1

*REFERENCES:* 93

*QUESTION TYPE:* True / False

*HAS VARIABLES:* False

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11. The \_\_\_\_ rules of a programming language tell you which statements are legal, or accepted, by the programming language.

- a. semantic
- b. logical
- c. syntax
- d. grammatical

*ANSWER:* c

*POINTS:* 1

*REFERENCES:* 34

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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12. Which of the following is a reserved word in C++?

- a. char
- b. Char
- c. CHAR
- d. character

*ANSWER:* a

*POINTS:* 1

*REFERENCES:* 35

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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13. Which of the following is a legal identifier?

- a. program!
- b. program\_1
- c. 1program
- d. program 1

*ANSWER:* b

*POINTS:* 1

*REFERENCES:* 36

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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14. \_\_\_\_ is a valid int value.

- a. 46,259
- b. 46259
- c. 462.59
- d. -32.00

ANSWER: b

POINTS: 1

REFERENCES: 39

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

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15. \_\_\_\_ is a valid char value.

- a. "-129"
- b. 'A'
- c. "A"
- d. 129

ANSWER: b

POINTS: 1

REFERENCES: 40

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

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16. An example of a floating point data type is \_\_\_\_.

- a. int
- b. char
- c. double
- d. short

ANSWER: c

POINTS: 1

REFERENCES: 41

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

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17. The memory allocated for a float value is \_\_\_\_ bytes.

- a. two
- b. four
- c. eight
- d. sixteen

ANSWER: b

POINTS: 1

REFERENCES: 41

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

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18. The value of the expression  $17 \% 7$  is \_\_\_\_\_.

- a. 1      b. 2
- c. 3      d. 4

*ANSWER:*            c

*POINTS:*            1

*REFERENCES:*    43

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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19. The value of the expression  $33/10$ , assuming both values are integral data types, is \_\_\_\_\_.

- a. 0.3      b. 3
- c. 3.0      d. 3.3

*ANSWER:*            b

*POINTS:*            1

*REFERENCES:*    43-44

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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20. The expression `static_cast<int>(9.9)` evaluates to \_\_\_\_\_.

- a. 9          b. 10
- c. 9.9      d. 9.0

*ANSWER:*            a

*POINTS:*            1

*REFERENCES:*    51

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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21. The expression `static_cast<int>(6.9) + static_cast<int>(7.9)` evaluates to \_\_\_\_.

a. 13      b. 14  
c. 14.8    d. 15

*ANSWER:*            a

*POINTS:*            1

*REFERENCES:*      51

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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22. The length of the string `"computer science"` is \_\_\_\_.

a. 14      b. 15  
c. 16      d. 18

*ANSWER:*            c

*POINTS:*            1

*REFERENCES:*      53

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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23. In a C++ program, `one` and `two` are double variables and input values are `10.5` and `30.6`. After the statement `cin >> one >> two;` executes, \_\_\_\_.

a. `one = 10.5, two = 10.5`    b. `one = 10.5, two = 30.6`  
c. `one = 30.6, two = 30.6`    d. `one = 11, two = 31`

*ANSWER:*            b

*POINTS:*            1

*REFERENCES:*      65

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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24. Suppose that `count` is an `int` variable and `count = 1`. After the statement `count++`; executes, the value of `count` is \_\_\_\_.

- a. 1      b. 2
- c. 3      d. 4

*ANSWER:*            b

*POINTS:*            1

*REFERENCES:*      69-70

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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25. Suppose that `alpha` and `beta` are `int` variables. The statement `alpha = --beta`; is equivalent to the statement(s) \_\_\_\_.

- a. `alpha = 1 - beta`;
- b. `alpha = beta - 1`;
- c. `beta = beta - 1`;  
   `alpha = beta`;
- d. `alpha = beta`;  
   `beta = beta - 1`;

*ANSWER:*            c

*POINTS:*            1

*REFERENCES:*      70-71

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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26. Suppose that `alpha` and `beta` are `int` variables. The statement `alpha = beta--`; is equivalent to the statement(s) \_\_\_\_.

- a. `alpha = 1 - beta`;
- b. `alpha = beta - 1`;
- c. `beta = beta - 1`;  
   `alpha = beta`;
- d. `alpha = beta`;  
   `beta = beta - 1`;

*ANSWER:*            d

*POINTS:*            1

*REFERENCES:*      70-71

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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27. Suppose that alpha and beta are int variables. The statement `alpha = beta++;` is equivalent to the statement(s) \_\_\_\_.

- a. `alpha = 1 + beta;`
- b. `alpha = alpha + beta;`
- c. `alpha = beta;`  
`beta = beta + 1;`
- d. `beta = beta + 1;`  
`alpha = beta;`

*ANSWER:* c

*POINTS:* 1

*REFERENCES:* 70-71

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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28. Suppose that alpha and beta are int variables. The statement `alpha = ++beta;` is equivalent to the statement(s) \_\_\_\_.

- a. `beta = beta + 1;`  
`alpha = beta;`
- b. `alpha = beta;`  
`beta = beta + 1;`
- c. `alpha = alpha + beta;`
- d. `alpha = beta + 1;`

*ANSWER:* a

*POINTS:* 1

*REFERENCES:* 70-71

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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29. Choose the output of the following C++ statement:

```
cout << "Sunny " << '\n' << "Day " << endl;
```

- a. Sunny \nDay
- b. Sunny \nDay endl
- c. Sunny  
Day
- d. Sunny \n  
Day

*ANSWER:* c

*POINTS:* 1

*REFERENCES:* 72

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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30. Which of the following is the newline character?

- a. \r    b. \n
- c. \l    d. \b

*ANSWER:* b

*POINTS:* 1

*REFERENCES:* 72

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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31. Consider the following code.

```
// Insertion Point 1

using namespace std;
const float PI = 3.14;

int main()
{
//Insertion Point 2

float r = 2.0;
float area;
area = PI * r * r;

cout << "Area = " << area <<endl;
return 0;
}
// Insertion Point 3
```

In this code, where does the `include` statement belong?

- a. Insertion Point 1
- b. Insertion Point 2
- c. Insertion Point 3
- d. Anywhere in the program

*ANSWER:* a

*POINTS:* 1

*REFERENCES:* 82

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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32. \_\_\_\_\_ are executable statements that inform the user what to do.

- a. Variables
- b. Prompt lines
- c. Named constants
- d. Expressions

*ANSWER:* b

*POINTS:* 1

*REFERENCES:* 89

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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33. The declaration `int a, b, c;` is equivalent to which of the following?

- a. `inta , b, c;`
- b. `int a,b,c;`
- c. `int abc;`
- d. `int a b c;`

*ANSWER:* b

*POINTS:* 1

*REFERENCES:* 90

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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34. Suppose that `alpha` and `beta` are `int` variables and `alpha = 5` and `beta = 10`. After the statement `alpha *= beta;` executes, \_\_\_\_.

- a. `alpha = 5`
- b. `alpha = 10`
- c. `alpha = 50`
- d. `alpha = 50.0`

*ANSWER:* c

*POINTS:* 1

*REFERENCES:* 92

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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35. Suppose that `sum` and `num` are `int` variables and `sum = 5` and `num = 10`. After the statement `sum += num` executes, \_\_\_\_.

- a. `sum = 0`
- b. `sum = 5`
- c. `sum = 10`
- d. `sum = 15`

*ANSWER:* d

*POINTS:* 1

*REFERENCES:* 93

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

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36. \_\_\_\_\_ is the process of planning and creating a program.

*ANSWER:* Programming  
programming

*POINTS:* 1

*REFERENCES:* 28

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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37. A(n) \_\_\_\_\_ is a memory location whose contents can be changed.

*ANSWER:* variable

*POINTS:* 1

*REFERENCES:* 33

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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38. A(n) \_\_\_\_\_ is a collection of statements, and when it is activated, or executed, it accomplishes something.

*ANSWER:* subprogram  
sub program  
sub-program  
function  
module

*POINTS:* 1

*REFERENCES:* 33

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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39. \_\_\_\_\_ functions are those that have already been written and are provided as part of the system.

*ANSWER:* Predefined  
predefined  
Standard  
standard

*POINTS:* 1

*REFERENCES:* 33-34

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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40. \_\_\_\_\_ rules determine the meaning of instructions.

*ANSWER:* Semantic  
semantic

*POINTS:* 1

*REFERENCES:* 34

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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41. \_\_\_\_\_ can be used to identify the authors of the program, give the date when the program is written or modified, give a brief explanation of the program, and explain the meaning of key statements in a program.

*ANSWER:* Comments  
comments

*POINTS:* 1

*REFERENCES:* 34

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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42. The smallest individual unit of a program written in any language is called a(n) \_\_\_\_\_.

*ANSWER:* token

*POINTS:* 1

*REFERENCES:* 35

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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43. In a C++ program, \_\_\_\_\_ are used to separate special symbols, reserved words, and identifiers.

*ANSWER:* whitespaces  
whitespace  
white spaces  
white space

*POINTS:* 1

*REFERENCES:* 37

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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44. The \_\_\_\_\_ type is C++ 's method for allowing programmers to create their own simple data types.

*ANSWER:* enumeration

*POINTS:* 1

*REFERENCES:* 38

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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45. The memory space for a(n) \_\_\_\_\_ data value is 64 bytes.

*ANSWER:* long long

*POINTS:* 1

*REFERENCES:* 39

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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46. The maximum number of significant digits is called the \_\_\_\_\_.

*ANSWER:* precision

*POINTS:* 1

*REFERENCES:* 42

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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47. When a value of one data type is automatically changed to another data type, a(n) \_\_\_\_\_ type coercion is said to have occurred.

*ANSWER:* implicit

*POINTS:* 1

*REFERENCES:* 50

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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48. A(n) \_\_\_\_\_ is a sequence of zero or more characters.

*ANSWER:* string

*POINTS:* 1

*REFERENCES:* 53

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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49. In C++, you can use a(n) \_\_\_\_\_ to instruct a program to mark those memory locations in which data is fixed throughout program execution.

*ANSWER:* named constant  
constant

*POINTS:* 1

*REFERENCES:* 54

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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50. A data type is called \_\_\_\_\_ if the variable or named constant of that type can store only one value at a time.

*ANSWER:* simple

*POINTS:* 1

*REFERENCES:* 57

*QUESTION TYPE:* Completion

*HAS VARIABLES:* False

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