

**TEST BANK FOR C++ PROGRAMMING FROM
PROBLEM ANALYSIS TO PROGRAM DESIGN
8TH EDITION MALIK ISBN
9781337102087**



Name: _____ Class: _____ Date: _____

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

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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

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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

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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 ____.

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- 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) ____.

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- 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

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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.

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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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