Test Bank for C Programming Program Design Including Data Structures 8th Malik

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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
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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
c. Named constants d. Expressions

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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

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POINTS: 1
REFERENCES: 38
QUESTION TYPE: Completion
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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
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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
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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
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